Healthy Kentuckians 2010
Mid-Decade Review

Produced by
Division of Epidemiology and Health Planning
Kentucky Department for Public Health

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Introduction

In the spring of 2000, the Kentucky Department for Public Health released *Healthy Kentuckians 2010* (HK 2010). This document, which set the agenda for Kentucky’s public health initiatives, was based on the U.S. Department of Health and Human Services’ document, *Healthy People 2010*. The two overarching goals for HK 2010 are extending years of healthy life and eliminating health disparities. HK 2010 has been used extensively in program planning, targeting prevention initiatives, grant preparation, and forming health policy.

Now it is time to determine how well Kentucky is meeting its objectives. This document, *Healthy Kentuckians 2010 Mid-Decade Review*, is a roadmap that shows how well Kentucky is making progress and where added emphasis is needed.

The Mid-Decade Review process began in the spring of 2005 with the development of a steering committee comprised of representatives from all divisions in the Kentucky Department for Public Health. The steering committee guided development of the document format and recommended coordinators for each chapter. These chapter coordinators worked with epidemiologists, team members, and other stakeholders to track each objective in HK 2010. While most objectives remained the same as in the original document, some were revised to reflect data from new or modified data sources. For example, an objective may rely on data from a certain survey question. If that survey question was changed, the objective was altered to reflect data obtained from the new survey question.

At the time that HK 2010 objectives and targets were set, most had data sources to track their progress. Other objectives were classified as “developmental” because no data source was available at the time to track the objectives. The developers of the objectives hoped that a data source would be available by mid-decade. Although many developmental objectives now have data sources to track their progress, some still do not. If a developmental objective would not have a data source by 2006, then in most cases it was deleted. Although these objectives are still considered important, they were removed from the document since no data would be available to track their progress.

Due to the changing emphasis on certain public health issues and the development of additional data sources, new objectives were added to certain chapters. In fact, an entire chapter on Public Health Preparedness was added to reflect the state’s commitment to this issue. In the first five years of this decade, we have seen acts of bioterrorism, wide scale natural disasters, and the potential for disease pandemics—all of which underscore the need for states to be able to effectively respond to such catastrophes.

Since this document serves as an indicator of how well Kentucky is meeting its 2010 objectives, each chapter includes the overall goal, a chapter overview, and a summary of progress for each chapter objective. Also included is a summary table that lists each
objective, the baseline, HK 2010 target, mid-decade status, whether progress was made, and the data source. More extensive information on each objective, such as data trends and strategies, can also be found in the document.

*Healthy Kentuckians 2010 Mid-Decade Review* reflects the objectives that Kentucky will be tracking for the next half of this decade (from FY 2006 through FY 2010). This updated document provides the framework for developing public health prevention initiatives geared to improving the health status of all Kentuckians. For questions on how to use this document in public health planning, please contact the Kentucky Department for Public Health, Division of Epidemiology and Health Planning at (502) 564-3418.
Executive Summary

Included below is a summary of the public health progress that Kentucky is making and the challenges the state is facing. A snapshot of leading health indicators will be included first. These are indicators which reflect areas of major public health importance as determined by the federal Department of Health and Human Services. The leading health indicators reflect individual behaviors, societal factors, and health system issues which affect the health of Kentuckians and Kentucky communities. After the leading health indicators, the progress of other notable objectives is included. Areas in which Kentucky is making progress will be noted by a ✓ symbol. Those areas in which added emphasis is needed will be listed without special notation.

Snapshot of Progress in the Leading Health Indicators:

Overweight and Obesity

Obesity (BMI ≥ 30) among adult Kentuckians (ages 20 and older) has increased from 23.5 percent in 2000 to 26.1 percent in 2004.

The percentage of adolescents in high school who are overweight has increased from 12.3 percent in 2001 to 14.6 percent in 2003.

Physical Activity

✓ The level of moderate physical activity of Kentucky adults increased from 28.9 percent in 2001 to 33.8 percent in 2003

Tobacco Use

✓ The percentage of Kentucky adults who are current smokers declined from 30.8 percent in 1998 to 27.5 percent in 2004.

✓ Among Kentucky high school students, the percentage who smoked cigarettes in the past 30 days declined from 37 percent in 2000 to 28 percent in 2004.

✓ The proportion of young people in grades 9 through 12 who have never smoked increased from 26 percent in 2000 to 31 percent in 2002.

Substance Abuse

✓ The percentage of adolescents who report using alcohol or marijuana during the past 30 days has decreased from 49.3 percent in 1997 to 45 percent in 2003 for alcohol and from 28.4 percent in 1997 to 21 percent in 2003 for marijuana.
The percentage of adolescents who report having ever used cocaine, steroids, or other injectable substances has increased. Cocaine use increased from 8.3 percent in 1997 to 9.8 percent in 2003. Steroid use increased from 6.1 percent in 1997 to 7.1 percent in 2003. Injecting drug use increased from 2.6 percent in 1997 to 3.2 percent in 2003.

Among Kentucky adults, binge drinking increased from 8.7 percent in 2001 to 9.6 percent in 2004. However, Kentucky still has one of the lowest percentages of binge drinking in the nation.

**Responsible Sexual Behavior**

- Pregnancies among females ages 15-17 have decreased from 31.9 per 1,000 in 2000 to 25.8 per 1,000 in 2004.

**Mental Health**

- The number of Kentucky children with severe emotional disabilities who receive mental health services from Mental Health/Mental Retardation (MH/MR) Boards or their subcontractors has increased from 22 percent to 39 percent. The target for this objective has been achieved.

- The number of adult Kentuckians with severe mental illness who receive mental health services from MH/MR Boards or their subcontractors has increased from 28 percent to 37 percent. The target for this objective has been achieved.

**Injury and Violence**

The death rate from motor vehicle crashes has increased from 16.5 deaths per 100,000 to 18.8 deaths per 100,000.

- The death rate from homicides has decreased slightly from 4.9 per 100,000 in 2000 to 4.6 per 100,000 in 2003.

**Environmental Quality**

- The proportion of manufacturing worksites that prohibit smoking indoors increased from 43 percent in 2000 to 49.3 percent in 2004. The target for this objective has been achieved.

**Immunizations**

- Kentucky has surpassed the national childhood immunization coverage rates for children 19-35 months of age for the vaccination series of DTaP, polio, MMR, Hib, hepatitis B, and varicella. The percentage of children in this age group
adequately immunized has increased from 77 percent in 2000 to 81.2 percent in 2004.

✔ Kentucky has exceeded the 2010 immunization series coverage target of 95 percent of kindergarteners (with the exception of varicella which is 84.5 percent).

✔ The percentage of non-institutionalized Kentuckians 65 and older who have been immunized against influenza has increased from 60.9 percent in 2001 to 64.9 percent in 2004; the percentage immunized against pneumonia has increased from 55.1 percent in 2001 to 57.7 percent in 2004.

**Access to Health Care**

The proportion of adult Kentuckians without health care coverage has increased from 14.3 percent in 1998 to a high of 18.2 percent in 2002. The prevalence in 2004 was 14.9 percent.

The proportion of adults who have a specific source of ongoing primary care has decreased from 84.4 percent in 2001 to 82.9 percent in 2004.

**Other Data of Note:**

The percentage of adult Kentuckians who have been told by a doctor that they have diabetes increased from 5 percent in 1996-98 to 7.5 percent in 2004.

In Kentucky, the death rate from diabetes as a leading or contributing cause of death increased from 76 per 100,000 in 1999 to 78 per 100,000 in 2002.

The prevalence of asthma among Kentucky adults has increased from 7.8 percent in 2000 to 8.3 percent in 2004.

✔ The rate of Kentuckians dying from heart disease has decreased from 316 deaths per 100,000 in 1997 to 290 per 100,000 in 2002.

✔ The percentage of adult Kentuckians who have had their blood cholesterol checked in the preceding five years has increased from 66 percent in 1997 to 73.9 percent in 2003.

✔ The breast cancer death rate decreased from 28.1 per 100,000 women in 1997 to 27.6 per 100,000 women in 2002.

✔ The death rate from cancer of the uterine cervix declined from 4.3 per 100,000 women in 1997 to 2.4 per 100,000 women in 2002. The HK 2010 target has been achieved for this objective.
The incidence of tuberculosis is at an historic all time low in Kentucky—with only 3.1 cases per 100,000 in 2004.

The infant mortality rate has decreased from 6.7 per 1,000 live births in 2000 to 6.5 per 1,000 live births in 2004.

Neural tube defects have decreased from 8.7 per 10,000 births in 2000 to 5.3 per 10,000 births in 2004. The HK 2010 target has been achieved for this objective.

The Kentucky All Schedule Prescription Electronic Reporting (KASPER) database has been implemented statewide. This electronic database was designed to capture information on prescriptions for controlled substances that are dispensed within Kentucky. This informational system facilitates targetting of individuals (prescribers, dispensers, and end users) who are in violation of Kentucky’s Controlled Substances Act. The electronic information system also provides valuable information to prescribing health care professionals on other controlled substances that the patient may be using.

Health Disparities

One of the main overarching goals of Healthy Kentuckians 2010 is to eliminate health disparities. Kentucky still faces many challenges in addressing this goal. Health disparities by race, gender, geographic region, and socioeconomic status continue to exist throughout Kentucky. Of particular concern, are the many health disparities between the races that are included below:

Obesity: A racial disparity exists in the prevalence of adult obesity in Kentucky. From 2000-2004, the prevalence of obesity was considerably higher among African Americans. In 2004, 39.2 percent of African Americans were obese compared to 25.5 percent of whites.

Diabetes and Asthma: Many health conditions for which obesity is a risk factor, such as diabetes and asthma, also affect African Americans disproportionately. In 2004, 12.9 percent of adult African Americans had been told by a doctor that they had diabetes compared to 7.4 percent of whites. In 2002, diabetes as a primary cause of death was the fourth leading cause of death for African Americans (64.9 per 100,000) but it was the seventh leading cause of death for whites (29.4 per 100,000). From 2000-2004, the prevalence of asthma was consistently higher among African Americans, and in the past few years, the disparity has increased. In 2004, the prevalence of asthma was 14.8 percent among African American adults compared to 8.0 percent among white adults.

AIDS and Other STDs: Disparities also exist in the incidence of AIDS and other sexually transmitted diseases. In 2003, the incidence of AIDS was over seven times higher among African Americans (24.3 per 100,000) compared to whites (3.2 per 100,000). In 2003 among African American females age 15 and older, the combined
rate of gonorrhea, chlamydia, and syphilis infections (1,975 per 100,000 females) was over eight times higher than the rate among white females age 15 and older (238 per 100,000 females).

Adolescent Pregnancy, Low Birth Weight, and Infant Mortality: The overall adolescent pregnancy rate for females age 15-17 declined 19 percent over the past five years. However, a disparity exists in the pregnancy rates for adolescent African Americans, 47.9 per 1,000 females, compared to adolescent whites, which was 24.7 per 1,000 females in 2004. Among African Americans, low birth weight was 13.1 percent compared to 8.0 percent among whites in 2004. Infant mortality is another area in which racial disparities exist. Over the past five years, the infant mortality rate for African Americans has been twice the rate for whites. In 2004 the infant mortality rate for African Americans was 11.9 per 1,000 live births compared to 5.5 per 1,000 live births for whites.
Leading Health Indicators - Summary Tables

The following pages include summary tables of the objectives included in the leading health indicators. Not all chapter objectives are included. Refer to each chapter for a complete listing of chapter objectives. Also included with the tables in this report are specific notations and abbreviations. Please refer below for their definitions.

DELETED

At the time that HK 2010 objectives and targets were set, most had data sources to track their progress. Other objectives were classified as “developmental” because no data source was available at the time to track the objectives. Although many developmental objectives now have data sources to track their progress, some still do not. If a developmental objective would not have a data source by 2006, then in most cases it was deleted. Although these objectives are still considered important, they were removed from the document since no data would be available to track their progress.

R for Revision

Most objectives are the same as in the original document; however, some were revised to reflect data from new or modified data sources. For example, an objective may rely on data from a certain survey question. If that survey question was changed, the objective was altered to reflect data obtained from the new survey question.

N for New Objective

A new objective has been included.

N/A

For these objectives only baseline data are available, and progress is not able to be determined at this time.

TBD

No reliable data currently exist for these objectives. Progress on these objectives will be tracked when a data source becomes available.
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<td>1.2R. Increase to at least 35 percent the proportion of Kentuckians ages 18 and over who engage in moderate physical activity 5 or more days per week.</td>
<td>28.9% (2001)</td>
<td>≥35%</td>
<td>33.8% (2003)</td>
<td>Yes</td>
<td>BRFSS</td>
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<td>1.4R. Increase to at least 24 percent the proportion of young people in grades K-12 who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days.</td>
<td>High School 20.3% (2001)</td>
<td>≥24%</td>
<td>21.3% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
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<td>35.6% (2000)</td>
<td>≥50.0%</td>
<td>32.6% (2004)</td>
<td>No</td>
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<td>2.2. Reduce to less than 15 percent the prevalence of BMI at or above 30.0 among people aged 20 and older.</td>
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<td>&lt;15.0%</td>
<td>26.1% (2004)</td>
<td>No</td>
<td>BRFSS</td>
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<td>2.3. Reduce to 5 percent or less the prevalence of overweight and obesity (at or above the sex and age specific 95th percentile of BMI from the revised NCHS/CDC growth charts) in children (aged 1-5 and 6-11) and adolescents (aged 12-19).</td>
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<td>2.3.1. Children &lt;5 and on WIC</td>
<td>13.5% (2000)</td>
<td>≤5%</td>
<td>17.7% (2003)</td>
<td>No</td>
<td>PedNSS</td>
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<td>2.3.2. Adolescents in High School</td>
<td>12.3% (2001)</td>
<td>≤5%</td>
<td>14.6% (2003)</td>
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<td>YRBSS</td>
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<td>3.1. Reduce the proportion of adults (18 and older) who use tobacco products.</td>
<td>Cigarettes 30.8% (1998)</td>
<td>≤25%</td>
<td>27.5% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Cigars 5.5% (1998)</td>
<td>≤4%</td>
<td>5.9% (2001)</td>
<td>No</td>
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<tr>
<td>Spit Tobacco 3% (1997)</td>
<td>≤2%</td>
<td>5% (2004)</td>
<td>No</td>
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<td>3.6. Reduce the proportion of young people who have smoked cigarettes within the past 30 days.</td>
<td>High School 37% (2000)</td>
<td>≤27%</td>
<td>28% (2004)</td>
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<td>YTS</td>
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<td>Middle School 22% (2000)</td>
<td>≤14%</td>
<td>15% (2002)</td>
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<td>3.8. Increase to 32 percent the proportion of young people in grades 9 to 12 who have never smoked.</td>
<td>26% (2000)</td>
<td>≥32%</td>
<td>31% (2002)</td>
<td>Yes</td>
<td>YTS</td>
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<td>26.11. Reduce past month use of alcohol among adolescents to no more than 30 percent.</td>
<td>49.3% (1997)</td>
<td>≤30%</td>
<td>45%</td>
<td>Yes</td>
<td>YRBSS</td>
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<td>26.13. Reduce to no more than 10 percent the proportion of adolescents reporting marijuana use during the past 30 days</td>
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<td>≤10%</td>
<td>21%</td>
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<td>YRBSS</td>
</tr>
<tr>
<td>26.14 Reduce to no more than 4 percent the proportion of adolescents reporting use of illicit drugs other than marijuana at any time (lifetime use).</td>
<td>Cocaine 8.3% (1997)</td>
<td>≤4%</td>
<td>9.8%</td>
<td>No</td>
<td>YRBSS</td>
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<td></td>
<td>Inhalants 24.7% (1997)</td>
<td>≤4%</td>
<td>14.3%</td>
<td>Yes</td>
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<td></td>
<td>Heroin 3.7% (2003)</td>
<td>≤4%</td>
<td>3.7%</td>
<td>Target Achieved</td>
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<td></td>
<td>Meth 9.7% (2003)</td>
<td>≤4%</td>
<td>9.7%</td>
<td>N/A</td>
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</tr>
<tr>
<td></td>
<td>Ecstasy 6.7% (2003)</td>
<td>≤4%</td>
<td>6.7%</td>
<td>N/A</td>
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</tr>
<tr>
<td></td>
<td>Steroids 6.1% (1997)</td>
<td>≤4%</td>
<td>7.1%</td>
<td>No</td>
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<td></td>
<td>Any injections 2.6% (1997)</td>
<td>≤4%</td>
<td>3.2%</td>
<td>Target Achieved</td>
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<td>26.18R. Reduce by one-fourth the proportion of Kentuckians age 18 and older who report binge drinking within the past month.</td>
<td>8.7% (2001)</td>
<td>≤6.5%</td>
<td>9.6%</td>
<td>No</td>
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<td>11.6R. Reduce pregnancies among females ages 15-17 to no more than 20 per 1,000 adolescents</td>
<td>31.9 /1,000 (2000)</td>
<td>≤20/ 1,000</td>
<td>25.8/1,000 (2004)</td>
<td>Yes</td>
</tr>
<tr>
<td>11.7. Increase by at least 10 percent the proportion of sexually active individuals, ages 15-19, who use barrier method contraception with or without hormonal contraception to prevent sexually transmitted disease and prevent pregnancy</td>
<td>62.8% (2003)</td>
<td>≥69.1%</td>
<td>62.8%</td>
<td>N/A</td>
</tr>
<tr>
<td>21.4. (Developmental): Increase proportion of sexually active unmarried people age 18 and older who reported that a latex condom was used at last sexual intercourse.</td>
<td>TBD</td>
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## Summary of Objectives for Leading Health Indicators

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<tbody>
<tr>
<td>23.2. Increase the number of adults with severe mental illness (SMI) who receive mental health services from Regional MH/MR Boards or their subcontractors to 30 percent.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Injury and Violence</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.10. Reduce deaths caused by motor vehicle crashes to no more than 12 per 100,000 and 1 per 100 million vehicle miles.</td>
</tr>
<tr>
<td>7.19R. Reduce homicides to less than 4.2 per 100,000 people.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Environmental Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.13. (Developmental) To reduce health effects of air pollution (DELETED)</td>
</tr>
<tr>
<td>3.16R. Increase to 50.3 percent the proportion of manufacturing worksites that prohibit smoking indoors.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Immunization</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.10. Achieve immunization coverage of at least 90 percent among children 19-35 months of age for the following: -4 DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B -1 dose of varicella vaccine.</td>
</tr>
<tr>
<td>22.11. Achieve immunization coverage of 95 percent for children in licensed day care facilities and children in kindergarten for the following:</td>
</tr>
<tr>
<td>Licensed Day Care Facilities</td>
</tr>
<tr>
<td>Diphtheria-tetanus-pertussis (4 doses, at least 1 on or after age 4)</td>
</tr>
<tr>
<td>Baseline: 91%</td>
</tr>
<tr>
<td>Measles, mumps, rubella (2 doses for kindergarten, 1 dose for children over 16 months of age in day care)</td>
</tr>
<tr>
<td>Baseline: 93.9%</td>
</tr>
<tr>
<td>Haemophilus influenzae type b (if under 5 years of age)</td>
</tr>
<tr>
<td>Baseline: 95.7%</td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
</tr>
<tr>
<td>Baseline: 94.6%</td>
</tr>
<tr>
<td>Varicella</td>
</tr>
<tr>
<td>Baseline: 90.1%</td>
</tr>
<tr>
<td>Polio (3 doses)</td>
</tr>
<tr>
<td>Baseline: 92.8%</td>
</tr>
<tr>
<td>Kindergarten</td>
</tr>
<tr>
<td>Diphtheria-tetanus-pertussis (4 doses, at least 1 on or after age 4)</td>
</tr>
<tr>
<td>Baseline: 96.3%</td>
</tr>
</tbody>
</table>
### Summary of Objectives for Leading Health Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measles, mumps, rubella (2 doses for kindergarten, 1 dose for children over 16 months of age in day care)</td>
<td>95.6%</td>
<td>≥95%</td>
<td>95.6%</td>
<td>Target Achieved</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> type b (if under 5 years of age)</td>
<td>96.3%</td>
<td>≥95%</td>
<td>96.3%</td>
<td>Target Achieved</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
<td>95.8%</td>
<td>≥95%</td>
<td>95.8%</td>
<td>Target Achieved</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
<tr>
<td>Varicella</td>
<td>84.5%</td>
<td>≥95%</td>
<td>84.5%</td>
<td>No Target Achieved</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
<tr>
<td>Polio (3 doses)</td>
<td>96.3%</td>
<td>≥95%</td>
<td>96.3%</td>
<td>Target Achieved</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
</tbody>
</table>

22.12. Increase to the following targets the rate of immunization coverage among the following adult groups.

#### Non-institutionalized adults 65 years of age or older

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Baseline (Year)</th>
<th>Target</th>
<th>Status (Year)</th>
<th>Progress</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza vaccine</td>
<td>60.9% (2001)</td>
<td>≥75%</td>
<td>64.9% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>55.1% (2001)</td>
<td>≥70%</td>
<td>57.7% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
</tbody>
</table>

#### Institutionalized adults in long-term care or nursing homes

<table>
<thead>
<tr>
<th>Vaccine</th>
<th>Baseline (Year)</th>
<th>Target</th>
<th>Status (Year)</th>
<th>Progress</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influenza vaccine</td>
<td>84.1% (2004)</td>
<td>≥90%</td>
<td>84.1% (2004)</td>
<td>N/A</td>
<td>Special surveys for long-term care</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>74.6% (2004)</td>
<td>≥90%</td>
<td>74.6% (2004)</td>
<td>N/A</td>
<td>Special surveys for long-term care</td>
</tr>
</tbody>
</table>

### Access to Health Care

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline (Year)</th>
<th>Target</th>
<th>Status (Year)</th>
<th>Progress</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.1. Reduce to zero the proportion of children and adults without health care coverage.</td>
<td>Adults 14.3% (1998)</td>
<td>0%</td>
<td>14.9% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>10.6. Increase to at least 90 percent the proportion of people who have a specific source of ongoing primary care.</td>
<td>84.4% (2001)</td>
<td>≥90%</td>
<td>82.9% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>12.9. Increase to at least 90 percent the proportion of all pregnant women who begin prenatal care in the first trimester of pregnancy.</td>
<td>85.7% (2000)</td>
<td>≥90%</td>
<td>86.2% (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
</tbody>
</table>

R = Revised objective
N/A = Only baseline data are available. Not able to determine progress at this time.
TBD = To be determined
Healthy Kentuckians 2010
Mid-Decade Review

Chapter Summaries
1. Physical Activity and Fitness

Goal

Improve the health, fitness, and quality of life of all Kentuckians through the adoption and maintenance of regular, daily physical activity.

Overview

The first Surgeon General’s Report on Physical Activity and Health, released in 1996, concluded that regular sustained physical activity can substantially reduce the risk of developing or dying of heart disease, diabetes, colon cancer, and high blood pressure. Additionally, research by Blair, SN et al. (JAMA 262:2395-2401, 1989) and Paffenbarger, R.S. Jr., et al. (N Engl J Med 328:538-45, 1993) has shown that regular physical activity can reduce the risk of osteoporosis, promote weight loss and foster a sense of well being. According to the Behavioral Risk Factor Surveillance System (BRFSS) conducted by the Division of Epidemiology and Health Planning, Kentucky Department for Public Health (KDPH), Kentucky ranks second in the nation for physical inactivity.

With high physical inactivity rates, Kentuckians also have seen increasing rates of overweight and obesity. Kentucky BRFSS data reveal a clear trend of an increasing number of individuals being overweight or obese. Kentucky ranked fifth highest in the nation for obesity in 2001 and tenth in 2002. Consistently, males tend to have a slightly higher prevalence of overweight than females, and blacks tend to have a higher prevalence than whites. The prevalence of overweight and obesity is a serious public health threat in Kentucky. The 1988 Surgeon General’s Report on Nutrition and Health established that being overweight is associated with elevated serum cholesterol levels, elevated blood pressure and noninsulin-dependent diabetes, as well as being an independent risk factor for coronary heart disease.

Summary of Progress

Although some progress has been made in meeting the objectives for Healthy Kentuckians 2010 in regards to physical activity, recent data indicate that the proportion of Kentuckians who are either overweight or obese has increased. Progress has been made in participating in any leisure time physical activity, and the target has been achieved for moderate physical activity. Nine objectives or sub-objectives were revised to meet current data collection efforts and definitions, and one objective was deleted for lack of data.

Progress toward Achieving Each HK 2010 Objective
1.1aR. Reduce overweight to a prevalence of no more than 25 percent among Kentuckians ages 18 and older.

**Reason for Revision:** The definition for overweight changed after the original Healthy Kentuckians 2010 physical activity chapter was drafted. The current definition for overweight is a Body Mass Index (BMI) greater than or equal to 25 and less than 30. The current definition for obesity is a BMI greater than or equal to 30. The original objective 1.1 has been changed to two revised objectives 1.1aR. and 1.1bR. to reflect the new definition.

**Data Source:** Behavioral Risk Factor Surveillance System (BRFSS)

**Baseline:** 38 percent in 2000

**HK 2010 Target:** 25 percent

**Mid-Decade Status:** 37.6 percent in 2004

**Strategies to Achieve Objective:**

- Implement the work plan specified in the Kentucky Nutrition and Physical Activity Program (KNPAP) to Prevent Obesity and Other Chronic Diseases.
- The overweight and obesity problem in Kentucky and barriers to interventions will be evaluated through joint efforts of the KDPH staff, the Partnership for a Fit Kentucky Steering Committee, research by the University of Kentucky Prevention Research Center and assessments conducted by local health departments.
- The Kentucky Department of Education (KDE) will coordinate with KDPH staff to strengthen and expand their capacity to plan, implement and evaluate strategies that improve health through the Coordinated School Health Program.
1.1bR. Reduce the percentage of Kentuckians age 18 and older who are either overweight or obese.

**Reason for Revision:** The definition for overweight changed after the original Healthy Kentuckians 2010 physical activity chapter was drafted. The current definition for overweight is a Body Mass Index (BMI) greater than or equal to 25 and less than 30. The current definition for obesity is a BMI greater than or equal to 30. The original objective 1.1 has been changed to two revised objectives 1.1aR. and 1.1bR. to reflect the new definition.

**Data Source:** Behavioral Risk Factor Surveillance System (BRFSS)

**Baseline:** 61 percent in 2000

**HK 2010 Target:** 55 percent

**Mid-Decade Status:** 63.4 percent in 2004

**Strategies to Achieve Objective:**

- Similar to objectives for 1.1aR.
1.2. To increase to at least 50 percent the proportion of Kentuckians ages 18 and over who engage regularly in physical activity for at least 20 minutes 3 or more times a week. (See Revision)

1.2R. (REVISION) Increase to at least 35 percent the proportion of Kentuckians ages 18 and over who engage in moderate physical activity 5 or more days per week.

Reason for Revision: The definition of moderate physical activity was changed from 20 minutes three or more days per week to 30 minutes five or more days per week.

Data Source: BRFSS. The definition of moderate physical activity was changed in 2001.

Baseline: 28.9 percent in 2001

HK 2010 Target: 35 percent

Mid-Decade Status: 33.8 percent in 2003
Strategies to Achieve Objective:

- Implement the work plan specified in the KDPH KNPAP
- KDPH will sponsor physical activity conferences yearly.
- The American Heart Association will sponsor American Heart Walks at several locations throughout the state.
- KDPH will work with local health departments to implement walking programs.

1.3. To increase to at least 50 percent the proportion of overweight people ages 18 and over who have adopted sound dietary practices combined with regular physical activity to attain an appropriate body weight. (See Revision)

1.3R. (REVISION) Decrease the percentage of Kentuckians reporting no leisure time physical activity (by BMI category, i.e., normal weight, overweight, obese class I, obese class II, obese class III).

Data Source: BRFSS

Baseline: 2001
- Normal weight 29.6 percent BMI of 18.5 – 24.9
- Overweight 30.7 percent BMI of 25.0 – 29.9
- Obese Class I 38.7 percent BMI of 30.0 – 34.9
- Obese Class II 45.6 percent BMI of 35.0 – 39.9
- Obese Class III 46.8 percent BMI of 40 or greater

HK 2010 Target:
- Normal weight 25.5 percent BMI of 18.5 – 24.9
Overweight: 26.3 percent BMI of 25.0 – 29.9
Obese Class I: 34.7 percent BMI of 30.0 – 34.9
Obese Class II: 34.1 percent BMI of 35.0 – 39.9
Obese Class III: 42.0 percent BMI of 40 or greater

Mid-Decade Status: 2004
Normal weight: 26.5 percent BMI of 18.5 – 24.9
Overweight: 27.3 percent BMI of 25.0 – 29.9
Obese Class I: 35.7 percent BMI of 30.0 – 34.9
Obese Class II: 35.1 percent BMI of 35.0 – 39.9
Obese Class III: 43.0 percent BMI of 40 or greater

Strategies to Achieve Objective:

- See objectives for 1.1aR. and 1.2.

1.4. To increase to at least 20 percent the proportion of young people in grades K-12 who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days.

1.4R. To increase to at least 24 percent the proportion of young people in grades 9-12 who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days.

Reason for Revision: Data are not available for grades K through 8, and none is expected in the near future.

Data Source: Youth Risk Behavior Surveillance System (YRBSS). The definition for moderate physical activity is activity for thirty or more minutes on 5 or more of the previous 7 days. This type of moderate activity does not require heavy breathing or sweating (e.g. fast walking, slow bicycling, and skating).

Baseline: 20.3 percent in 2001

HK 2010 Target: 24 percent

Mid-Decade Status: 21.3 percent in 2003
Strategies to Achieve Objective:

- Use community assessments performed by local health departments and research performed by the University of Kentucky Prevention Research Center in the course of implementing the work plan specified in the KNPAP State Action Plan
- Analyze the Kentucky YRBS data and additional data gathered through community assessments and the University of Kentucky Prevention Research Center by sex, race, and region to more effectively target efforts for intervention
- Encourage schools to have sports and physical education activities daily for every child four or five days a week
- Partner with public and private, for-profit and non-profit related organizations to affect policy and environment changes to encourage an increase in frequent, moderate physical activity among Kentuckians in grades K-12

1.5. (Developmental) Increase the proportion of the state's public and private elementary, middle/junior high and senior high schools that provide access to their physical activity spaces and facilities for young people and adults outside of normal school hours (i.e. before and after the school day, on weekends, and during summer and other vacations).

Data Source: School Policy Survey (Conducted by Kentucky DPH Tobacco Prevention and Control Program).

Baseline and Mid-Decade Status: 2003: 51 percent of middle and high schools allow students to use both inside and outside facilities after hours;
31 percent of middle and high schools allow public use of inside and outside facilities after hours.

**HK 2010 Target:** 56 percent of middle and high schools allow students to use both inside and outside facilities after hours; 34 percent of middle and high schools allow public use of inside and outside facilities after hours.

**Data Needs:** Continue data collection via survey

**Strategies to Achieve Objective:**

- Partner with public and private, for-profit and non-profit organizations to increase the proportion of Kentucky schools that provide access to their physical activity spaces and facilities for young people and adults outside of normal school hours

**1.6. (Developmental) Increase the proportion of Kentucky worksites with 50 or more employees offering employer-sponsored physical activity and fitness programs.**

**Data Source:** 2001 Kentucky Worksite Cardiovascular Health Survey

**Baseline:** 45 percent in 2001

**HK 2010 Target:** 50 percent

**Mid-Decade Status:** See baseline

**Data Needs:** Worksite survey needs to be repeated by 2006.

**Strategies to Achieve Objective:**

- Partner with public and private, profit and non-profit organizations to increase the proportion of worksites with more than 50 employees that offer employer–sponsored physical activity and fitness programs

**1.7. (Developmental) Increase the proportion of primary and allied health care providers who routinely assess and counsel their patients regarding their physical activity. (DELETED)**

**Reason for Deletion:** No data source exits, and none is expected in the near future.

**Terminology**
**BRFSS:** Behavioral Risk Factor Surveillance System – An adult telephone survey cosponsored by the CDC and KDPH.

**KNPAP:** Kentucky Nutrition and Physical Activity Program

**YRBSS:** Youth Risk Behavior Surveillance System – CDC’s survey for high school students in grades 9 to 12 done every two years.

**References**

- Kentucky Youth Risk Behavior Surveillance System, 2003
- Behavioral Risk Factor Surveillance System, 2000-2004

**Contributors**

- Colby Wagoner, MS.  Physical Activity Coordinator, Kentucky Nutrition and Physical Activity Program to Prevent Obesity and Other Chronic Diseases, Department for Public Health, Chapter Coordinator
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- Teri Wood, Ph.D. Epidemiologist, Chronic Disease Branch, Kentucky Department for Public Health
- Barbara Donica, MA, RN, Coordinated School Health Administrator, Division of Nutrition and Health Services, Kentucky Department of Education
### Summary of Objectives for Physical Activity and Fitness

<table>
<thead>
<tr>
<th>Objective Description</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1a. Reduce overweight to a prevalence of no more than 25 percent among Kentuckians 18 and over. (Overweight for this objective is defined as a BMI greater than or equal to 25 and less than 30.)</td>
<td>38% (2000)</td>
<td>≤25%</td>
<td>37.6% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>1.1b. Reduce the percentage of Kentuckians 18 and older who are either overweight or obese. (The definition of “overweight or obese” for this objective is a BMI greater than or equal to 25.)</td>
<td>61.0% (2000)</td>
<td>≤55%</td>
<td>63.4% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>1.2. Increase to at least 30 percent the proportion of Kentuckians ages 18 and over who engage in moderate physical activity 5 or more days per week.</td>
<td>28.9% (2001)</td>
<td>≥35%</td>
<td>33.8% (2003)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>1.3. Decrease the percentage of Kentuckians reporting no leisure time physical activity (by BMI category, i.e. normal weight, overweight, obese class I, obese class II, and obese class III).</td>
<td>Normal weight 29.6% (2001)</td>
<td>≤25.5%</td>
<td>26.5% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>Overweight 30.7%</td>
<td>≤26.3%</td>
<td>27.3%</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>Obese Class I 38.7%</td>
<td>≤34.7%</td>
<td>35.7%</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>Obese Class II 45.6%</td>
<td>≤34.1%</td>
<td>35.1%</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>Obese Class III 46.8%</td>
<td>≤42.0%</td>
<td>43.0%</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>1.4. Increase to at least 24 percent the proportion of young people in grades 9-12 who engage in moderate physical activity for at least 30 minutes on five or more of the previous seven days.</td>
<td>20.3% (2001)</td>
<td>≥24%</td>
<td>21.3% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>1.5. (Developmental) Increase the proportion of the state’s public and private elementary, middle/junior high, and senior high schools that provide access to their physical activity spaces and facilities for young people and adults outside of normal school hours.</td>
<td>51% of middle and high schools allow access to students after hours (2003)</td>
<td>≥56%</td>
<td>51% (2003)</td>
<td>N/A</td>
<td>School Policy Survey</td>
</tr>
<tr>
<td>Summary of Objectives for Physical Activity and Fitness</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>-------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>31% of middle and high schools allow access to the general public after hours (2003)</td>
<td>≥34%</td>
<td>31% (2003)</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6. (Developmental) Increase the proportion of Kentucky worksites with 50 or more employees offering employer-sponsored physical activity and fitness programs.</td>
<td>45% (2001)</td>
<td>≥50%</td>
<td>45% (2001)</td>
<td>N/A</td>
<td>Worksite Survey</td>
</tr>
<tr>
<td>1.7. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective  
N/A = Only baseline data are available. Not able to determine progress at this time.
2. Nutrition

Goal

To promote health and reduce chronic disease risk, disease progression, debilitation, and premature death associated with dietary factors and nutritional status among all people in Kentucky.

Overview

Nutrition is essential for growth, development, and maintenance of every individual. Diet has been linked to preventable illness and premature death in the United States and to the nation’s economic burden. In Kentucky, dietary factors are associated with four of the ten leading causes of death: coronary heart disease, some types of cancer, strokes, and diabetes mellitus. Dietary factors are also linked to osteoporosis, which is the major underlying cause of bone fractures among the elderly and postmenopausal women in the United States. During the last five years, obesity rates have increased in children, adolescents, and adults in Kentucky. The effects of diets high in fats and sugars and the lack of physical activity contribute to the obesity "epidemic". The economic costs of adult obesity for Kentucky were estimated by Centers for Disease Control and Prevention (CDC) in 2003 to be $1.163 billion.

Summary of Progress

Objectives 2.1 through 2.3 deal with pediatric and adult obesity, which continue to be on the rise. Legislation, advocacy, and health programs have been activated during the last five years to address obesity, but progress is not expected to impact data for at least a generation. Growth retardation or underweight among low-income children has improved slightly over the last five years. Underweight has improved over the last five years showing a decrease from 6.2 percent in 2000 to 4.0 percent in 2004. Diet related problems such as iron deficiency and meals low in fruits and vegetables continue to be prevalent. The objective for consumption of five fruits and vegetables per day has not been attained during the last five years in Kentucky. Iron deficiency anemia in low income children under the age of five has remained stable at approximately 11 percent from 2000 to 2004.

Progress toward Achieving Each HK 2010 Objective

2.1. Increase to at least 50 percent the prevalence of healthy weight (defined as a body mass index (BMI) greater than 19.0 and less than 25.0) among all people aged 20 and older.

Data Source: Behavioral Risk Factor Surveillance System (BRFSS)
Baseline: 35.6 percent in 2000

HK2010 Target: Greater than or equal to 50 percent

Mid-Decade Status: 32.6 percent in 2004

Figure 2.1 Prevalence of Healthy Weight among Age 20 and Older (BMI greater than 19 and less than 25), Kentucky, 2000-2004 (Source: BRFSS)

Strategies to Achieve Objective:

- Local health department dietitians, nutritionists, health educators and nurses will provide group education emphasizing healthy habits based upon identified needs in the schools, community, and partnerships.
- Certified Nutritionists/Registered Dietitians will provide Medical Nutrition Therapy (MNT) specifically addressing overweight and obesity, as appropriate. In 2004, the leading diagnosis code for MNT visits were for obesity.
- Continue infrastructure development through the Nutrition, Physical Activity, and Obesity Grant from CDC
- Apply for implementation level funding from CDC for Nutrition, Physical Activity, and Obesity Grant

2.2. Reduce to less than 15 percent the prevalence of BMI at or above 30.0 among people aged 20 and older.

Data Source: BRFSS

Baseline: 23.5 percent in 2000

HK 2010 Target: Less than 15 percent
Mid-Decade Status: 26.1 percent in 2004

Figure 2.2 Prevalence of Obesity among Age 20 and Older (BMI greater than or equal to 30), Kentucky, 2000-2004 (Source: BRFSS)

Strategies to Achieve Objective:

- Provide group education in the community and schools by local health department dietitians, nutritionists, health educators and nurses based upon identified needs, with emphasis on a level of BMI 30 or greater due to the expected higher rates of mortality and morbidity. Partner with community resources to implement evidenced-based nutrition and physical activity programs
- Provide Medical Nutrition Therapy (MNT) by Certified Nutritionists/Registered Dietitians specifically addressing overweight and obesity, as appropriate. In 2004, the leading diagnosis code for MNT visits was for obesity

2.3. Reduce to 5 percent or less the prevalence of overweight and obesity (at or above the sex and age specific 95th percentile of BMI from the revised NCHS/CDC growth charts) in children (aged 1-5 and 6-11) and adolescents (aged 12-19).

Data Source: CDC Pediatric Nutrition Surveillance (PedNSS)
Youth Risk Behavior Surveillance System (YRBSS)

Baseline: No baseline data is available for the 6-11 age group. In 2000, CDC Pediatric Nutrition Surveillance System (PedNSS) data for Kentucky children on the Kentucky Women Infants and Children Program (WIC) reported 13.5 percent of the children were above the 95th percentile on age-appropriate National Center for Health Statistics (NCHS) and CDC growth charts. In 2001 the YRBSS reported 12.3 percent of high school students were overweight.
HK 2010 Target: Children age less than 5 on WIC, Less than or equal to 5 percent; 
Adolescents in High School, less than or equal to 5 percent

Mid-Decade Status: Children age less than 5 on WIC, 17.7 percent in 2003; 
Adolescents in high school, 14.6 percent in 2003

Data Needs: Data are needed on children age 1 to 5, other than those on WIC, as well as data on children age 6 to 11.

Strategies to Achieve Objective:

- In 2006, Kentucky will begin pilot-testing the use of the CDC/NCHS growth charts in an automated format. Growth charts are divided into two groups: girls and boys and within the group by age - birth to 36 months and age 2 to 20. Data will be collected on length/height and weight and analyzed according to: at risk for short stature, short stature, at risk for underweight, underweight, at risk for overweight, overweight and BMI for age 2 and older. This pilot-test will begin with WIC infants and children but will advance to collect height and weight on any infant/child/adolescent based upon services that include collection of height and weight (e.g. well child visits, immunizations, etc.). Analysis of the data will be conducted by the CDC through PedNSS.

- Review feeding practices among the WIC population and provide healthy food packages to assist parents/caregivers/guardians in maintaining appropriate weight for height of WIC children. Continue to offer and encourage fat free and 1 percent dairy products through WIC

- Provide Medical Nutrition Therapy specifically addressing overweight and obesity by Certified Nutritionists/Registered Dietitians as appropriate. In 2004, the leading diagnosis code for MNT visits were for obesity.

- Provide counseling appropriate for parents/caregivers/guardians and their perception of the child. The counseling includes information about the importance of physical activity.

- Collaborate with the Division of Nutrition and Health Services staff of the Department of Education to provide training and education in the schools for cafeteria staff, teachers, parents, and administrators concerning healthy meals and the importance of 5 A DAY.

- Collaborate with the Nutrition and Health Services staff to provide healthy meals and snacks and continue promotion of 5 A DAY programs at the summer feeding programs

- Develop community programs through city and county parks, YMCA's, and other recreational sites/facilities to emphasize good health and
nutrition
• Provide healthy menus for kid’s meals at Kentucky State Parks including 5 A DAY information
• Expand the CDC Pediatric PedNSS to gather data from local health departments on patients ages 6-20 years

2.4. Maintain reduced growth retardation among low-income children aged 5 and younger to 5 percent or less.

Data Source: PedNSS

Baseline: Underweight in 2000 was 6.2 percent (WIC only data)

HK 2010 Target: 5 percent or less

Mid-Decade Status: 4 percent in 2004 (WIC only data)

![Graph showing prevalence of underweight among WIC recipients age less than or equal to 5, 2000-2004](source: PedNSS)

Strategies to Achieve Objective:

• Current data sources only address the low income population seen in WIC within Kentucky’s health departments. However, the Healthy Kentuckians 2010 Objective is addressing only the low income population and it is expected that most of this population are served by Kentucky’s WIC Program. Consequently, there is no plan at this time to gather data outside the WIC Program.
• Continue early prenatal and child entry into WIC services
• Provide maximum food packages or special formula from WIC, as needed for eligible participants to assist in growth and development
• Promote avoidance of smoking, alcohol and drugs in the community and in identified prenatal women to prevent low birth weight and
prematurity

- Provide education in communities through partnerships to promote healthy growth and development

2.5. Increase to at least 40 percent the proportion of people age 2 and older who meet the Dietary Guidelines’ minimum average daily goal of at least five servings of vegetables and fruits.

Data Source: BRFSS and Youth Risk Behavior Surveillance System (YRBSS)

Baseline: 22.7 percent of adults age 18+ in 2000 (BRFSS); 19.2 percent of 9th through 12th graders in 2001 (YRBSS)

HK2010 Target: At least 40 percent

Mid-Decade Status: 18.2 percent of adults age 18+ in 2003 (BRFSS); 13.2 percent of 9th through 12th graders in 2003 (YRBSS)

![Percentage of Adults Who Consume 5 or More Fruits or Vegetables a Day, Kentucky, 2000-2003 (Source: BRFSS)](image)

Strategies to Achieve Objective:

- Current data sources only address data from age 18 and older through BRFSS and high school students through YRBSS. There is no plan at this time to gather data outside these sources.
- Provide education in communities through partnerships to promote healthy eating and lifestyles
- Continue offering 5 A Day display board with materials for health fairs across Kentucky. Support 5 A DAY activities through nutrition-community funding
- Collaborate with the Division of Nutrition and Health Services staff in
providing training and education in the schools for cafeteria staff, teachers, parents, and administrators concerning healthy eating and lifestyles

- Continue collaboration with the Kentucky Department of Agriculture to highlight 5 A Day through the Kentucky Farmers Market

2.6. Reduce iron deficiency to 7 percent or less among low-income children aged 1 and 2 and to less than 5 percent among low-income children aged 3 and 4. (See Revision)

2.6R. (REVISION) Reduce iron deficiency to 7 percent or less among low-income children less than age 5.

**Reason for Revision:** Objective is revised to reflect how data are collected on PedNSS.

**Data Source:** PedNSS

**Baseline:** 11.2 percent in 2000

**HK 2010 Target:** 7 percent

**Mid-Decade Status:** 11.8 percent in 2004 (WIC only age < 5 years)

![Figure 2.5 Prevalence of Iron Deficiency among WIC Recipients Age Less than or Equal to 5, 2000-2004 (Source: PedNSS)](chart)

**Strategies to Achieve Objective:**

- Current data sources only address the low income population seen in WIC within Kentucky’s health departments. However, the Healthy People 2010 Objective is addressing only the low income population and it is expected most of this population are served by WIC in...
Kentucky. There is no plan at this time to gather data outside these sources due to the focus of the objective.

- Continue early entry into WIC services (key nutrients in WIC foods are iron and Vitamin C)
- Provide community and individual education concerning the importance of iron-rich and Vitamin C foods
- Encourage the early use of prenatal vitamins and include this information in community prenatal classes

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### 2. Nutrition – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Nutrition</th>
<th>Baseline HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.1. Increase to at least 50 percent the prevalence of healthy weight (defined as a body mass index (BMI) greater than 19.0 and less than 25.0) among all people aged 20 and older.</td>
<td>35.6% (2000)</td>
<td>≥50%</td>
<td>32.6% (2004)</td>
<td>No</td>
</tr>
<tr>
<td>2.2. Reduce to less than 15 percent the prevalence of BMI at or above 30.0 among people aged 20 and older.</td>
<td>23.5% (2000)</td>
<td>&lt;15%</td>
<td>26.1% (2004)</td>
<td>No</td>
</tr>
<tr>
<td>2.3. Reduce to 5 percent or less the prevalence of overweight and obesity (at or above the sex and age specific 95th percentile of BMI from the revised NCHS/CDC growth charts) in children (aged 1-5 and 6-11) and adolescents (aged 12-19).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children &lt;5 on WIC</td>
<td>13.5% (2000)</td>
<td>≤5%</td>
<td>17.7% (2003)</td>
<td>No</td>
</tr>
<tr>
<td>Adolescents in High School</td>
<td>12.3% (2001)</td>
<td>≤5%</td>
<td>14.6% (2003)</td>
<td>No</td>
</tr>
<tr>
<td>2.4. Maintain reduced growth retardation among low-income children aged 5 and younger to 5 percent or less.</td>
<td>6.2% (2000)</td>
<td>≤5%</td>
<td>4% (2004)</td>
<td>Target Achieved</td>
</tr>
<tr>
<td>2.5. Increase to at least 40 percent the proportion of people age 2 and older who meet the Dietary Guidelines’ minimum average daily goal of at least five servings of vegetables and fruits.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adults Age 18+</td>
<td>22.7% (2000)</td>
<td>≥40%</td>
<td>18.2% (2003)</td>
<td>No</td>
</tr>
<tr>
<td>2.6R. Reduce iron deficiency to 7 percent or less among low-income children less than age 5.</td>
<td>11.2% (2000)</td>
<td>≤7%</td>
<td>11.8% (2004)</td>
<td>No</td>
</tr>
</tbody>
</table>

R = Revised objective
3. Tobacco Use

Goal

Reduce the burden of tobacco-related addiction, disease, and mortality, thereby improving the health and well being of adults and youth in Kentucky. This includes decreasing tobacco use among adults, pregnant women, youth, and disparate populations, eliminating exposure to secondhand smoke, and building capacity in communities for tobacco prevention and cessation.

Overview

Tobacco use is the number one public health threat in Kentucky. The state's adult and youth smoking rates, annual deaths related to smoking, and lung cancer death rates are among the highest in the country. Smoking accounts for approximately 30 percent of all cancer deaths, and 87 percent of lung cancer deaths. Smoking is known to cause an increased risk for cancers of the mouth, pharynx, larynx, esophagus, pancreas, cervix, kidney, and bladder. In addition, smoking is a major cause of heart disease, stroke, chronic bronchitis, and emphysema.

At current smoking rates, 87,902 Kentucky children who are 18 years or younger will die prematurely from smoking. According to the latest National Youth Tobacco Survey (YTS), 10 percent of middle school and 23 percent of high school students in the United States smoke cigarettes. Kentucky’s youth far exceed the national average in current cigarette use. The Kentucky 2004 YTS revealed that 15 percent of middle school students surveyed and 28 percent of high school students surveyed smoke cigarettes.

Kentucky has the second highest percentage of pregnant smokers, 23.9 percent versus the national average of 11.4 percent. (Kentucky’s figure is based on 2003 birth records.) This behavior places children of pregnant smokers at risk for low birth weight, Sudden Infant Death Syndrome (SIDS), respiratory problems, and various other health conditions.

In addition to the toll it takes in human lives lost, tobacco use also has substantial economic consequences for the Commonwealth. Health care costs attributable to smoking are estimated at $1.2 billion annually, creating an extra tax burden for each household in the Commonwealth of $567 in state and federal taxes. In addition to increased health care costs, it is estimated that Kentucky families experience a loss of an additional $1.8 billion dollars in income from premature death of those who die of smoking related disease.

The Tobacco Prevention and Cessation Program provides leadership to achieve the four goals identified as best practice by the Centers for Disease Control and Prevention
(CDC): preventing youth initiation, promoting quitting among adults and young people, eliminating exposure to secondhand smoke, and identifying and eliminating disparities among population groups disproportionately affected by tobacco use.

Funds are allocated to local health departments for evidence-based programs ranging from youth education programs to adult cessation. Local health department staff teach prevention education in schools, provide smoking cessation programs, conduct community assessments, offer technical assistance to schools and businesses, and develop coalitions to promote and provide community interventions related to tobacco use. Funds are maximized through collaboration with partners such as Regional Prevention Centers, Family Resource and Youth Services Centers (FRYSC’s), Substance Abuse programs, the Kentucky Cancer Program, American Cancer Society, American Lung Association, and American Heart Association.

Summary of Progress

The Healthy Kentuckians 2010 Mid-Decade Review revealed that progress has already been made in 24 of the 38 possible objectives or partial objectives. (Some objectives have multiple parts in which progress may have been made in one part but not the other.) Of those with progress, 21 percent have already reached the Healthy Kentuckians 2010 Target. Four objectives have been deleted due to absence of a data source with no prospective suitable data sources by 2006. Progress has not been made in eight objectives/partial objectives. One objective is using baseline data for the mid-decade status and therefore progress cannot be measured at this time. Finally, data are not expected until 2006 for one objective, causing it to remain in developmental status.

Progress toward Achieving Each HK 2010 Objective

3.1. Reduce the proportion of adults (18 and older) who use tobacco products.

Data Source: Behavioral Risk Factor Surveillance System (BRFSS). Refused and unknown responses are excluded. Questions on cigarette use are asked every year. Questions on other tobacco products use (cigars and spit tobacco) were asked in: 1997 (spit tobacco), 1998 (cigars), 2001 (both products) and 2004 (both products).

Cigarettes
Baseline: 30.8 percent in 1998

HK 2010 Target: 25.0 percent

Mid-Decade Status: 27.5 percent in 2004
Cigars  
Baseline:  5.5 percent in 1998  
HK 2010 Target:  4 percent  
Mid-Decade Status:  5.9 percent in 2001

Smokeless Tobacco  
Baseline:  3 percent in 1997  
HK 2010 Target:  2 percent  
Mid-Decade Status:  5 percent in 2004
Data Needs: Data on current cigar and smokeless tobacco prevalence among adults are needed on a more regular basis (two-year).

Strategies to Achieve Objective:

- Promote the use of evidence-based cessation programs
- Promote the accessibility and availability of tobacco cessation programs through advertising and marketing strategies
- Tailor tobacco cessation to special populations (e.g. African Americans, Hispanics, low-income)
- Promote provider education and providers’ use of self-reminder systems to ensure that the issue of tobacco use is raised during the clinical examination

3.2. Increase to 58 percent the proportion of cigarette smokers ages 18 and older who stop smoking for a day or more. (See Revision)

3.2R. Increase to 58 percent the proportion of cigarette smokers ages 18 and older who smoke every day and stop smoking for a day or more.

Reason for Revision: Change in BRFSS questions

Data Source: BRFSS. Refused and unknown responses are excluded.

Baseline: 47.9 percent in 1998

HK 2010 Target: 58 percent

Mid-Decade Status: 47.6 percent in 2004
Figure 3.4 Prevalence of Adult Smokers (of those who smoke everyday) who Attempted to Quit for a Day or Longer in the Past 12 Months, Kentucky, 1998, 2000-2004 (Source: BRFSS)

Strategies to Achieve Objective:

- Promote the use of evidence-based cessation programs
- Promote the accessibility and availability of tobacco cessation programs through advertising and marketing strategies
- Tailor tobacco cessation programs to special populations (e.g. African Americans, Hispanics, low-income)
- Promote provider education and providers’ use of self-reminder systems to ensure that the issue of tobacco use is raised during the clinical examination

3.3. (Developmental) Increase the proportion of cigarette smokers aged 18 and older who stop smoking cigarettes for 7 days or longer. (DELETED)

Reason for Deletion: Data source is not available for this objective.

3.4. Reduce cigarette smoking among pregnant women to a prevalence of no more than 17 percent.

Data Source: Kentucky Vital Statistics Surveillance System, Birth Records

Baseline: 24.7 percent in 1997

HK 2010 Target: 17 percent

Mid-Decade Status: 23.9 percent in 2003
Figure 3.5 Prevalence of Maternal Smoking during Pregnancy, Kentucky, 1997-2003 (Source: BRFSS)

Strategies to Achieve Objective:

- Promote provider education and providers’ use of self-reminder systems to ensure that the issue of tobacco use is raised during the clinical examination
- Promote cessation through advertising and marketing strategies tailored for pregnant women

3.5. Increase to at least 50 percent the proportion of pregnant women who abstain from tobacco use beginning early in pregnancy and who maintain abstinence for the remainder of their pregnancy, following delivery, and through 6 weeks postpartum. (See Revision)

3.5R. (REVISION) Of new mothers who smoked in the first three months before becoming pregnant, increase the percentage who abstained from using tobacco during their pregnancy.

Reason for Revision: Change in data collected from the birth record

Data Source: Kentucky Vital Statistics Surveillance System - Birth Records

Baseline: None until 2004 data are available

HK 2010 Target: To be determined from 2004 data

Mid-Decade Status: To be determined from 2004 data

Strategies to Achieve Objective:
• Promote provider education and providers’ use of self-reminder systems to ensure that the issue of tobacco use is raised during the clinical examination
• Promote cessation through advertising and marketing strategies tailored for pregnant women

3.6. Reduce the proportion of young people who have smoked cigarettes within the past 30 days.

Data Source: Kentucky Youth Tobacco Survey (YTS)

Baseline: 37 percent in 2000 for high school students
22 percent in 2000 for middle school students

HK 2010 Target: 27 percent for high school students
14 percent for middle school students

Mid-Decade Status: 28 percent in 2004 for high school students
15 percent in 2004 for middle school students

Figure 3.6  Prevalence of High School Students who Have Smoked Cigarettes in the Past 30 Days, Kentucky, 2000, 2002, and 2004 (Source: YTS)
3.7. Reduce the proportion of males and females who smoked a whole cigarette before age 13. (See Revision)

3.7R. (REVISION) Reduce the proportion of high school youth who smoked a whole cigarette before age 13.

**Reason for Revision:** The objective was revised to reflect data collected through the Youth Risk Behavior Surveillance System (YRBSS)

**Data Source:** YRBSS

**Baseline:** 32.5 percent in 1997

**HK 2010 Target:** 22 percent

**Mid-Decade Status:** 29.4 percent in 2003
Strategies to Achieve Objective:

- Promote and enforce tobacco-free policies in schools and other organizations that serve youth
- Promote the use of evidence-based curricula in schools
- Initiate media campaigns to counter pro-tobacco influences and increase pro-health messages at state and local levels
- Promote youth involvement in state and local coalitions

3.8. Increase to 32 percent the proportion of young people in grades 9 to 12 who have never smoked.

Data Source: YTS

Baseline: 26 percent in 2000

HK 2010 Target: 32 percent

Mid-Decade Status: 31 percent in 2002
Strategies to Achieve Objective:

- Promote and enforce tobacco-free policies in schools and other organizations that serve youth
- Promote the use of evidence-based curricula in schools
- Initiate media campaigns to counter pro-tobacco influences and increase pro-health messages at state and local levels
- Promote youth involvement in state and local coalitions
- Encourage schools to offer evidence-based cessation programs for youth

3.9. Increase to 56 percent the proportion of youth smokers who quit for at least a day or more. (See Revision)

3.9R. (REVISION) Increase to 62 percent the proportion of students in high school who smoke who quit for at least a day or more.

Reason for Revision: The objective was revised to reflect data collected through the YTS.

Data Source: YTS

Baseline: 60 percent in 2000

HK 2010 Target: 62 percent

Mid-Decade Status: 55.2 percent in 2004
Figure 3.10 Prevalence of High School Smokers who Have Quit Smoking for a Day or More in the Past 12 Months, Kentucky, 2000, 2002, and 2004 (Source: YTS)

Strategies to Achieve Objective:

- Encourage schools to offer evidence-based cessation programs for youth

3.10. Increase the proportion of 8th, 10th, and 12th graders who disapprove of tobacco use. (See Revision)

3.10R. (REVISION) Reduce the proportion of high school and middle school students who think smoking cigarettes makes young people look cool or fit in.

Reason for Revision: The objective was revised to reflect data collected through the YTS

Data Source: YTS

Baseline: 11.5 percent in 2000 for high school students
16.5 percent in 2000 for middle school students

HK 2010 Target: 10.4 percent for high school students
11.1 percent for middle school students

Mid-Decade Status: 11.8 percent in 2002 for high school students
12.1 percent in 2002 for middle school students
Figure 3.11 Proportion of High School Students who Think Smoking Cigarettes Makes Young People Look Cool or Fit in, Kentucky, 2000 and 2002 (Source: YTS)

Figure 3.12 Proportion of Middle School Students Who Think Smoking Cigarettes Makes Young People Look Cool or Fit in, Kentucky, 2000 and 2002 (Source: YTS)

Strategies to Achieve Objective:

- Promote and enforce tobacco-free policies in schools and other organizations that serve youth
- Promote the use of evidence-based curricula in schools
- Initiate media campaigns to counter pro-tobacco influences and increase pro-health messages at state and local levels
- Promote youth involvement in state and local coalitions

3.11. (Developmental) Increase the proportion of 8th-12th graders who associate harm with tobacco use. (See Revision)

3.11R. Increase to 100 percent the proportion of high school students who think secondhand smoke is harmful.

Data Source: YTS
**Baseline:** 91.5 percent in 2000  
**HK 2010 Target:** 100 percent  
**Mid-Decade Status:** 92.2 percent in 2002

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**Figure 3.13** Proportion of High School Students who Think Secondhand Smoke is Harmful, Kentucky, 2000 and 2002 (Source: YTS)

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**Strategies to Achieve Objective:**

- Promote and enforce tobacco-free policies in schools and other organizations that serve youth
- Promote the use of evidence-based curricula in schools
- Initiate media campaigns to counter pro-tobacco influences and increase pro-health messages at state and local levels
- Promote youth involvement in state and local coalitions

**3.12.** Increase to 81.2 percent the proportion of schools (middle and high) that provide research-based tobacco use prevention curricula.

**Data Source:** School Policy Survey

**Baseline:** 73.8 percent in 2003

**HK 2010 Target:** 81.2 percent

**Mid-Decade Status:** See baseline
Data Needs: Data are provided by the University of Kentucky College of Nursing (UK CON). When reporting results from the School Policy Survey, UK CON does not report an overall percentage of schools that provide research-based tobacco prevention curricula. Instead, results are reported by individual curriculum. In the future, KDPH needs to work with UK CON to either obtain raw data and analyze overall proportion (as was done in 2003) or report an overall proportion.

Strategies to Achieve Objective:

- Promote the use of evidence-based curricula in schools
- Encourage schools to offer evidence-based cessation programs

3.13. Enforce minors’ access to tobacco laws to increase compliance to 95 percent or higher. (See Revision)

3.13R. (REVISION) Increase the proportion of stores that are compliant with youth tobacco access laws.

Reason for Revision: This revision reflects the type of data collected from the Kentucky Alcohol and Beverage Control Board.

Data Source: Kentucky Alcohol and Beverage Control Board

Baseline: 86 percent in 1998

HK 2010 Target: 96 percent

Mid-Decade Status: 95 percent in 2004
3.14. (Developmental) Increase the proportion of health care providers that inquire about secondhand smoke exposure in the home and advise reduction in secondhand smoke exposure for patients and their families. (DELETED).

**Reason for Deletion:** A data source is not available to track objective and no source is expected in the near future.

3.15. Increase to 100 percent the proportion of schools with tobacco-free environments (including indoors and outdoors), in vehicles, and at all school events. (See Revision)

3.15R.(REVISION) Increase the proportion of schools with tobacco-free environments (both indoors and outdoors) for students and staff, and at all school events to the proportions listed below.

**Reason for Revision:** The objective was revised to reflect data collected through the School Policy Survey.

**Data Source:** School Policy Survey

**Baseline:** (2001) Indoor tobacco-free environments for students, teachers and staff: 98.7 percent
School grounds for students: 96.8 percent
School grounds for teachers and staff: 44.7 percent
Indoor school-related events: 95.5 percent
Outdoor school-related events: 41.4 percent
HK 2010 Target: Indoor tobacco-free environments for students, teachers and staff: 100 percent
School grounds for students: 100 percent
School grounds for teachers and staff: 49.2 percent
Indoor school-related events: 100 percent
Outdoor school-related events: 45.5 percent

Mid-Decade Status: (2003) Indoor tobacco-free environments for students, teachers and staff: 99 percent
School grounds for students: 96.6 percent
School grounds for teachers and staff: 41.7 percent
Indoor school-related events: 92.7 percent
Outdoor school-related events: 43.6 percent

Strategies to Achieve Objective:

- Promote and enforce tobacco-free policies in schools that apply to staff, teachers, administrators, and youth
- Promote tobacco-free policies in school vehicles
- Promote tobacco-free policies at all school events, both on and off-site, at all venues

3.16. Increase to 100 percent the proportion of worksites that prohibit smoking or limit smoking to separately ventilated areas. (See Revision)

3.16R. (REVISION) Increase to 50.3 percent the proportion of manufacturing worksites that prohibit smoking indoors.

Reason for Revision: The revision reflects data collected from the Workplace Policy Survey.

Data Source: Workplace Policy Survey. This survey is conducted on a biennial basis from randomly sampled manufacturing facilities in Kentucky.

Baseline: 43 percent in 2000

HK 2010 Target: 50.3 percent

Mid-Decade Status: 49.3 percent in 2004
3.17. Increase to 51 percent the proportion of food service establishments that prohibit smoking or limit smoking to separately ventilated areas. (See Revision)

3.17R. (REVISION) Increase to 51 percent the proportion of food service establishments that prohibit smoking.

**Reason for Revision:** The objective was revised to reflect data collected through the Food Establishment Survey

**Data Source:** Food Service Establishment Survey

**Baseline:** 32 percent in 1999

**HK 2010 Target:** 51 percent

**Mid-Decade Status:** 44.5 percent in 2003
Data Needs: Data collected on the Food Service Establishment Survey should be consistent with previous years. However, a change in the database in 2004 may cause data to be reported in a manner different from prior years. The Tobacco Program should work closely with the Division of Public Health Protection and Safety in order to resolve the issues the database change may cause.

Strategies to Achieve Objective:

- Encourage tobacco-free policies, voluntary or locally-enacted, for all public places including food service establishments

3.18. Increase to 95 percent the proportion of patients who receive advice to quit smoking from a health care provider.

Data Source: BRFSS Refused and unknown responses are excluded. The question is not asked on an annual or regular basis.

Baseline: 73.3 percent in 2003

HK 2010 Target: 95 percent

Mid-Decade Status: 70.8 percent in 2004
Figure 3.18 Percentage of Smokers Who Said that Their Doctors Have Advised Them to Quit, Kentucky, 2003 and 2004 (Source: BRFSS)

Strategies to Achieve Objective:

- Promote provider education and providers’ use of self-reminder systems to ensure that this issue is raised during the clinical examination

3.19. Increase the proportion of health plans that reimburse for nicotine addiction treatment.

Data Source: Workplace Policy Survey

Baseline: 26 percent in 2000 (health plans in manufacturing companies)
7 percent in 2000 (health plans in local health departments - LHDs)

HK 2010 Target: 29 percent (manufacturing)
8 percent (LHDs)

Mid-Decade Status: 36.9 percent in 2004 (manufacturing)
23.7 percent in 2004 (LHDs)
**Data Needs:** Data for this objective only cover some manufacturing companies in Kentucky and local health departments. A survey covering more diverse companies across the state is needed to gain a more complete understanding of health plans' reimbursement in Kentucky.

3.20.a. Increase the proportion of health departments that have a tobacco-user identification system for patients.

**Data Source:** Local Health Department Survey

**Baseline:** 83 percent in 2000

**HK 2010 Target:** 91.3 percent

**Mid-Decade Status:** 94.6 percent in 2004
3.20.b. Increase the proportion of health departments that dedicate staff to provide research-based smoking cessation treatment.

Data Source: Local Health Department Survey. Data include those local health departments that have dedicated staff providing classes in the Cooper Clayton Method to Stop Smoking, which is a research-based smoking cessation program.

Baseline: 43.6 percent in 2000

HK 2010 Target: 48 percent

Mid-Decade Status: 92.9 percent in 2004
3.20.c. Increase to 100 percent the proportion of health departments that provide annual training on research-based smoking cessation programs for health care providers. (See Revision)

3.20.cR. (REVISED) Increase to 100 percent the proportion of health departments that provide annual training on smoking cessation programs for health care providers.

Data Source: Local Health Department Survey

Baseline: 15.1 percent in 2000

HK 2010 Target: 100 percent

Mid-Decade Status: 30.4 percent in 2004

![Figure 3.23 Proportion of Health Departments that Provide an Annual Training on Smoking Cessation Programs for Health Care Providers, Kentucky, 2000-2004](Source: Local Health Department Survey)

3.20.d. Increase to 100 percent the proportion of health departments that provide a variety of research-based smoking cessation treatment interventions. (DELETED)

Reason for Deletion: Not able to accurately determine the number of research based interventions provided at each health department.

3.20.e. Increase to 48 percent manufacturing facilities that reimburse for smoking cessation services.

Data Source: Workplace Policy Survey. The data includes manufacturing workplaces that have health insurance plans that reimburse for all or part of behavioral counseling or classes for smoking cessation.
Baseline: 26 percent in 2000

HK 2010 Target: 48 percent

Mid-Decade Status: 26.3 percent in 2004

![Bar chart showing the proportion of manufacturing facilities with health plans that reimburse for smoking cessation services, Kentucky, 2000, 2002, and 2004.](chart)

Figure 3.24 Proportion of Manufacturing Facilities with Health Plans that Reimburse for Smoking Cessation Services, Kentucky, 2000, 2002, and 2004 (Source: Workplace Policy Survey)

Strategies to Achieve Objective:

- Encourage health insurers to offer coverage for evidence-based cessation treatment and pharmacotherapy

3.21. Establish a comprehensive research-based tobacco control program in Kentucky. (See Revision)

3.21R. (REVISION) Establish a comprehensive research-based tobacco control program in Kentucky, as evidenced by the following criteria:

1. The number of local health departments (LHDs) that are funded for tobacco prevention and cessation
2. The number of LHDs that offer the Cooper Clayton Method to Stop Smoking Program
3. The number of full-time state-level tobacco control program staff
4. The percentage of schools with research-based tobacco prevention curricula

The Tobacco Prevention Program has grown since funding for it began in 1994. In 1999, 10 LHDs were funded for tobacco prevention and control, 21 LHDs provided Cooper Clayton Stop Smoking Programs, and there were four (4) full-time state-level staff in the Kentucky Tobacco Prevention and Cessation Program.
Currently, all of Kentucky’s 56 LHDs (covering all 120 counties) are funded for tobacco prevention and control (2005); 52 LHDs provide Cooper Clayton Stop Smoking Programs (2004); there are 5 full-time state-level staff in the Kentucky Tobacco Prevention and Cessation Program (2005); and 73 percent of schools have research-based prevention curricula (2003).

3.22. Increase the proportion of localities that adopt ordinances and/or policies to restrict tobacco use. (See Revision)

3.22R. (REVISION) Increase the number of localities that adopt ordinances and/or policies to restrict tobacco use.

Data Source: Local Ordinance Data

Baseline: 0 in 2000

HK 2010 Target: 5

Mid-Decade Status: 2 in 2004

Strategies to Achieve Objective:

- Encourage tobacco-free policies in all public places including bars and restaurants
- Offer technical assistance to cities on model tobacco-free policies

Terminology
Cessation Programs: a full range of services to identify and advise users of tobacco products to quit, including brief advice/counseling, intensive individual and group counseling, pharmaceutical aids (nicotine gum/patch, nasal inhaler, Zyban, etc.), computer-assisted interventions, mass media campaigns, and telephone quit lines.

Chronic Bronchitis: an inflammation of the bronchi, the main air passages in the lungs, which persists for a long period or repeatedly recurs.

Community-Based Approaches: prevention approaches that focus on the problems or needs of an entire community, including large cities, small towns, schools, worksites, and public places.

Disparate Populations: groups of people that are more adversely affected by tobacco use (either underserved—too few services or underutilizing existing services).

Emphysema: a chronic, irreversible disease of the lungs characterized by abnormal enlargement of air spaces in the lungs accompanied by destruction of the tissue lining the walls of the air spaces.

Low Birth Weight: a baby weighing less than 2500 grams (5 pounds 8 ounces) at birth.

Postpartum: the 6-week period immediately following birth.

Public Place: any area to which the public is invited or in which the public is permitted.

Research-Based: information obtained from research studies conducted to evaluate the effectiveness of interventions and typically published in peer-reviewed journals.

Secondhand Smoke: exhaled tobacco smoke and side stream smoke from the burning end of a cigarette and other tobacco product. Frequently referred to as “environmental tobacco smoke”, “involuntary smoking”, or “passive smoking.”

Spit Tobacco: also known as smokeless tobacco, comes in two forms: moist snuff and chew. Snuff is a finely ground tobacco, of which users put a pinch (also called a "dip" or a "rub") between the cheek and gum in the mouth and hold it there. Chewing tobacco comes in leaf and plug forms and is chewed.

Sudden Infant Death Syndrome (SIDS): sudden and unexplained death of an infant from an unknown cause.

Youth: any person or persons under 18 years of age.
References

- Kentucky Alcohol Beverage Control Illegal Tobacco Sales to Minors Database, 1998-2004
- Kentucky Department for Public Health Food Service Establishment Survey, 1999-2003
- Kentucky Youth Risk Behavior Surveillance Survey, 1997-2003
- Kentucky Youth Tobacco Survey, 2000-2004
- Behavioral Risk Factor Surveillance System, 1997-2004
- Local Health Department Cessation Survey, 1999-2004
- Workplace Policy Survey, 1999-2004

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- Barbara Donica, MA, RN, Coordinated School Health Administrator, Division of Nutrition and Health Services, Kentucky Department of Education
### Summary of Objectives for Tobacco

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1. Reduce the proportion of adults (18 and older) who use tobacco products.</td>
<td>Cigarettes 30.8% (1998)</td>
<td>≤25%</td>
<td>27.5% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>Cigars 5.5% (1998)</td>
<td>≤4%</td>
<td>5.9% (2001)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spit Tobacco 3% (1997)</td>
<td>≤2%</td>
<td>5% (2004)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>3.2R. Increase to 58 percent the proportion of cigarette smokers ages 18 and older who smoke every day and stop smoking for a day or more.</td>
<td>47.9% (1998)</td>
<td>≥58%</td>
<td>47.6% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>3.3. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.4. Reduce cigarette smoking among pregnant women to a prevalence of no more than 17 percent.</td>
<td>24.7% (1997)</td>
<td>≤17%</td>
<td>23.9% (2003)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>3.5R. (Developmental) Of new mothers who smoked in the first three months before becoming pregnant, increase the percentage who abstained from using tobacco during pregnancy.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>3.6. Reduce the proportion of young people who have smoked cigarettes within the past 30 days.</td>
<td>High School 37% (2000)</td>
<td>≤27%</td>
<td>28% (2004)</td>
<td>Yes</td>
<td>YTS</td>
</tr>
<tr>
<td></td>
<td>Middle School 22% (2000)</td>
<td>≤14%</td>
<td>15% (2004)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>3.7R. Reduce the proportion of high school youth who smoked a whole cigarette before age 13.</td>
<td>32.5% (1997)</td>
<td>≤22%</td>
<td>29.4% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>3.8. Increase to 32 percent the proportion of young people in grades 9 to 12 who have never smoked.</td>
<td>26% (2000)</td>
<td>≥32%</td>
<td>31% (2002)</td>
<td>Yes</td>
<td>YTS</td>
</tr>
<tr>
<td>3.9R. Increase to 56 percent the proportion of students in high school who smoke who quit for at least a day or more.</td>
<td>60% (2000)</td>
<td>≥62%</td>
<td>55.2% (2004)</td>
<td>No</td>
<td>YTS</td>
</tr>
<tr>
<td>3.10R. Reduce the proportion of high school and middle school students who think smoking cigarettes makes young people</td>
<td>High School 11.5% (2000)</td>
<td>≤10.4%</td>
<td>11.8% (2002)</td>
<td>No</td>
<td>YTS</td>
</tr>
<tr>
<td>Summary of Objectives for Tobacco</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
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</tr>
<tr>
<td>look cool or fit in.</td>
<td>Middle School 16.5% (2000)</td>
<td>≤11.1%</td>
<td>12.1% (2002)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>3.11R. Increase to 100 percent the proportion of high school students who think secondhand smoke is harmful.</td>
<td>91.5% (2000)</td>
<td>100%</td>
<td>92.2% (2002)</td>
<td>Yes</td>
<td>YTS</td>
</tr>
<tr>
<td>3.12. Increase the proportion of schools (middle and high) that provide research-based tobacco use prevention curricula.</td>
<td>73.8% (2003)</td>
<td>≥81.2%</td>
<td>73.8% (2003)</td>
<td>N/A</td>
<td>School Policy Survey</td>
</tr>
<tr>
<td>3.13R. Increase the proportion of stores that are compliant with youth tobacco access laws.</td>
<td>86% (1998)</td>
<td>≥96%</td>
<td>95% (2004)</td>
<td>Yes</td>
<td>KY ABC</td>
</tr>
<tr>
<td>3.14. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.15R. Increase the proportion of schools with tobacco-free environments (both indoors and outdoors) for students and staff, and at all school events.</td>
<td>Indoor for everyone 98.7% (2001)</td>
<td>100%</td>
<td>99% (2003)</td>
<td>Yes</td>
<td>School Policy Survey</td>
</tr>
<tr>
<td></td>
<td>School grounds for students 96.8% (2001)</td>
<td>100%</td>
<td>96.6% (2003)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>School grounds for teachers and staff 44.7% (2001)</td>
<td>≥49.2%</td>
<td>41.7% (2003)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Indoor school-related events 95.5% (2001)</td>
<td>100%</td>
<td>92.7% (2003)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Outdoor school-related events 41.4% (2001)</td>
<td>≥45.5%</td>
<td>43.6% (2003)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>3.16R. Increase to 47.3 percent the proportion of manufacturing worksites that prohibit smoking indoors.</td>
<td>43% (2000)</td>
<td>≥50.3%</td>
<td>49.3% (2004)</td>
<td>Yes</td>
<td>Workplace Policy Survey</td>
</tr>
<tr>
<td>3.17R. Increase to 51 percent the proportion of food service establishments that prohibit smoking.</td>
<td>32% (1999)</td>
<td>≥51%</td>
<td>45% (2003)</td>
<td>Yes</td>
<td>Food Service Estab. Survey</td>
</tr>
<tr>
<td>3.18. Increase to 95 percent the proportion of patients who receive advice to quit smoking from a health care provider.</td>
<td>73.3% (2003)</td>
<td>≥95%</td>
<td>70.8% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td></td>
<td>LHDs 7% (2000)</td>
<td>≥8%</td>
<td>23.7% (2004)</td>
<td>Target Achieved</td>
<td></td>
</tr>
<tr>
<td>3.20a. Increase the proportion of health departments that have a tobacco-user identification system for patients.</td>
<td>83% (2000)</td>
<td>≥91.3%</td>
<td>94.6% (2004)</td>
<td>Target Achieved</td>
<td>LHD Survey</td>
</tr>
<tr>
<td>Summary of Objectives for Tobacco</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
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</tr>
<tr>
<td>3.20b. Increase the proportion of health departments that dedicate staff to provide research-based smoking cessation treatment.</td>
<td>43.6% (2000)</td>
<td>≥48%</td>
<td>92.9% (2004)</td>
<td>Target Achieved</td>
<td>LHD Survey</td>
</tr>
<tr>
<td>3.20cR. Increase to 100 percent the proportion of health departments that provide annual training on smoking cessation programs for health care providers.</td>
<td>15.1% (2000)</td>
<td>100%</td>
<td>30.4% (2004)</td>
<td>Yes</td>
<td>LHD Survey</td>
</tr>
<tr>
<td>3.20d. (DELETED)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>3.20e. Increase to 48 percent manufacturing facilities that reimburse for smoking cessation services.</td>
<td>26% (2000)</td>
<td>≥48%</td>
<td>26.3% (2004)</td>
<td>Yes</td>
<td>Workplace Policy Survey</td>
</tr>
<tr>
<td>3.21R. Establish a comprehensive research-based tobacco control program in Kentucky, as characterized by the following: 1. The number of local health department (LHD) districts that are funded for tobacco prevention and cessation 2. The number of LHD districts that offer Cooper Clayton Method to Stop Smoking Programs. 3. The number of full-time state-level tobacco control program staff. 4. The percentage of schools with research-based tobacco prevention curricula.</td>
<td>1) 10 (1999)</td>
<td>1) 56</td>
<td>1) 56 (2005)</td>
<td>Target Achieved</td>
<td>Plan/Budget Records</td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
<td>LHD Survey</td>
</tr>
<tr>
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<td>Personnel Records</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>School Policy Survey</td>
</tr>
<tr>
<td>3.22R. Increase the proportion of localities that adopt ordinances and/or policies to restrict tobacco use.</td>
<td>0 (2000)</td>
<td>≥5</td>
<td>2 (2004)</td>
<td>Yes</td>
<td>Local Ordinance Data</td>
</tr>
</tbody>
</table>

R = Revised objective  
N/A = Only baseline data are available. Not able to determine progress at this time.  
TBD = To be determined. No reliable data currently exist.
4. Educational and Community Based Programs

Goal

Increase the quality, availability and effectiveness of educational and community-based programs designed to prevent disease, prevent disability and premature death, and promote the health and quality of life of all Kentuckians (*Healthy People 2010*, 1998)

Overview

The health of our communities depends in large part on whether the physical and social aspects of the communities make it possible for people to live healthy lives. There is a dynamic and unavoidable interaction between individuals and their environment. While lifestyle choices are ultimately individual choices, these personal decisions are made in the midst of a complex mix of social and community relationships and environments that can actively support or obstruct personal change. Research has shown that behavior change is more likely to happen and be maintained when a person’s environment is altered in a manner that supports the change.

This complex of interrelationships between people and their social and community networks is termed “the Socioecological Model”. The different levels of the model include: Individual (personal behavior change), Interpersonal and Group (family or peer groups), Institutions and Organizations (such as schools, faith organizations or worksites), Community (local policy makers, planners and civic organizations), and Societal or Public Policy (state or national level policy or law). The most effective community promotion programs are those that take into account the different levels of the Socioecological Model, implementing multiple intervention strategies across multiple settings. For example, community promotion programs that involve educational, policy and environmental strategies within schools, workplaces, and health care facilities within the community have a greater chance of succeeding. These settings serve as channels for reaching the “targeted” population and, at the same time, generate the possibility of intervening at the policy level to facilitate healthy choices (i.e., smoking cessation classes may lead to a decision for an agency to become “smoke–free”).

The school, ranging from preschool through college, provides an important setting for reaching the entire population, over time. Schools have more influence on the lives of youth than any other social institution, except the family. Because healthy children learn better than children with health problems, to achieve their educational mission, schools and colleges must address the health and related social problems of youth. A focal point of their efforts, in this respect, must be to reduce health risks and improve the health status of youth.
The growing cost of health care coupled with the increasing problems of preventable acute and chronic illness have brought health education to the forefront of workplace concerns. Health promotion in the workplace is critical to the long-term maintenance of our nation’s health. Increasing awareness, promoting healthy individual lifestyles, fostering health-related behavior changes, and creating supportive work environments are core to workplace health promotion. This, in turn, is beneficial to managers, employees, and the community at large.

Summary of Progress

Progress has been made in several areas of educational and community based programs. The high school dropout rate has actually been reduced, which means that more Kentucky citizens are in a position to hold better jobs, earn a better income, and are more likely to have health insurance. Progress has been made in school health programs. The decrease in the ratio of students to school nurses and the implementation of a coordinated school health program statewide will impact policies and programs in all Kentucky schools. In community health programming, local health departments are offering more and more programs to Kentucky citizens which address multiple Healthy Kentuckians 2010 objectives. They are also offering culturally appropriate programming to meet the needs of different social and ethnic groups. as well as serving more older citizens than ever before.

Progress toward Achieving Each HK 2010 Objective

Objectives for the School Setting

High School Completion

4.1. Increase to at least 90 percent the number of individuals, through age 24, who have completed high school.

Data Source: 2000 U.S. Census

Baseline: 74.7 percent: Analysis of 2000 census by the Kentucky State Data Center (KSDC) at the University of Louisville. KSDC Demographic, Education and Workforce Data Tables (Series 1)

HK 2010 Target: 90 percent

Mid-Decade Status: See baseline

Strategies for Achieving Objective:

● Objective 1.1 and sub-objectives 1.1.1 and 1.1.1.a of the Kentucky Department of Education’s (KDE) Strategic Plan states that… “Every student is in school and making strong progress… with a decrease in the
dropout rate overall and an increase in the graduation rate overall. The KDE is addressing all objectives through focused and coordinated initiatives. Special emphasis has been placed on dropout reduction and reducing performance gaps among subgroups of students to meet requirements adopted by the General Assembly in 2002 (Senate Bill 168)." 


4.2. **Reduce the annual dropout rate for students enrolled in grades 9-12, to a rate of less than 5 percent.**

**Data Source:** 1993-2004 Nonacademic Briefing Packet (State Summary) Kentucky Department of Education Office of Assessment and Accountability

**Baseline:** 5.2 percent in 1997

**HK 2010 Target:** 5 percent or less

**Mid-Decade Status:** 3.4 percent in 2004

**Strategies for Achieving Objective:**

Same strategies as for Objective 4.1

School Health Education

4.3. **Increase to 100 percent the number of Kentucky’s elementary, middle/junior and senior high schools that require the equivalent of 1 full year of health education.** (DELETED)

**Reason for Deletion:** The KDE is not working toward a statewide initiative to require one full year of health education at this time.

4.4. **Implement effective health education curricula in Kentucky’s elementary, middle/junior and senior high schools addressing the 6 risk behavior areas that are the leading causes of morbidity and mortality among youth.** (See Revision for 4.4.1 to 4.4.6)

4.4.1. **Implement effective health education curricula addressing injuries and safety (personal injury and safety including seat belt use, bicycle/motorcycle helmet use and drinking and driving).** (See Revisions – note that objectives 4.4.1 to 4.4.6 are condensed into one objective listed as 4.4R in revisions.)
4.4.2. Implement effective health education curricula addressing Violence and Suicide (addresses suicide, physical fighting, weapons and fear). (See Revision – note that objectives 4.4.1 to 4.4.6 are condensed to one objective listed as 4.4R.)

4.4.3. Implement effective health education curricula addressing the use of Alcohol, Tobacco and Other Drugs (ATOD) (alcohol, tobacco products, marijuana, cocaine, steroids, and other illegal drugs, age at first use). (See Revision – note that objectives 4.4.1 to 4.4.6 are condensed into one objective listed as 4.4R.)

4.4.4. Implement effective health education curricula addressing sexual behavior (where students have received information about sexually transmitted disease (STD) such as HIV infection, sexual intercourse, and pregnancy prevention). (See Revision – note that objectives 4.4.1 to 4.4.6 are condensed into one objective listed as 4.4R.)

4.4.5. Implement effective health education curricula addressing body weight and nutrition (how students feel about their weight; what, if anything, students are doing to control their weight; how often students eat healthy foods and foods with limited nutritional value). (See Revision – note that objectives 4.4.1 to 4.4.6 are condensed into one objective listed as 4.4R.)

4.4.6. Implement effective health education curricula addressing physical activity (how often students engage in physical activities improving or maintaining aerobic capacity, flexibility and muscle strength; school-based physical activities including physical education classes and team sports). (See Revision – note that objectives 4.4.1 to 4.4.6 are condensed into one objective listed as 4.4R.)

4.4R. (REVISION 4.4.1 – 4.4.6) Increase to or maintain at 95 percent the proportion of public middle and high schools that require instruction in the areas that contribute to the leading causes of morbidity and mortality among youth.

Reason for Revision: This revision reflects how the data on health education are collected through the School Health Education Profiles (SHEP).

Data Source: SHEP (Only 2002 data are available)

<table>
<thead>
<tr>
<th>Baseline: in 2002</th>
<th>Percent of Middle Schools</th>
<th>Percent of High Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Prevention</td>
<td>97.3%</td>
<td>98.2%</td>
</tr>
</tbody>
</table>
Sexually Transmitted Disease 94.7% 98.2%  
Human Sexuality 77.6% 92.0%  
Accident or Injury Prevention 93.4% 96.4%  
Alcohol or Other Drug Use Prevention 97.4% 98.2%  
Suicide Prevention 66.7% 83.6%  
Tobacco Use Prevention 98.7% 98.2%  
Violence Prevention 85.5% 90.1%  
Benefits of Healthy Eating 100% 98.2%  
Risks of Unhealthy Weight Control 96.0% 97.3%  
Accepting Body Size Differences 89.3% 95.5%  
Decreasing Sedentary Activity 89.2% 93.6%  

*Public Schools Only

**HK 2010 Target:** Increase or maintain all areas to at least 95 percent

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Promote at both the state and local levels the value of instruction regarding behaviors which contribute to morbidity and mortality in youth
- Continue to collect SHEP data
- Continue to promote local health departments providing health education to students in schools and community settings. (Evidence based curricula and best practices such as Reducing the Risk (RTR), Postponing Sexual Involvement (PSI), Take 10!, TEG/TAP, etc. are used.)

4.5. Increase the CATS (Commonwealth Accountability Testing System) Practical Living area of assessment to 14 percent to be equivalent to other academic areas at all grade levels. (DELETED)

**Reason for Deletion:** The CATS System is currently being revised to meet the requirements of the “No Child Left Behind” Act.

**College Health Education**

4.6. Increase to at least 12 percent, the proportion of undergraduate students attending postsecondary institutions who receive information from their college or university on all six priority health risk behavior areas (behaviors that cause unintentional and intentional injuries, tobacco use, alcohol and other drug use, sexual behaviors, dietary patterns that cause disease, and inadequate physical activity). (DELETED)
Reason for Deletion: There are no statewide data on college health risk behaviors, and these types of data are not expected to be collected in the near future.

School Nurses

4.7. Increase to 100 percent the proportion of Kentucky’s elementary, middle/junior, and senior high schools that have a nurse-to-student ratio of at least 1:750. (See Revision)

4.7R. (REVISION) Increase the nurse to student ratio to 1:750 among Kentucky’s elementary, middle/junior, and senior high schools.

Reason for Revision: Revision reflects how data on the nurse to student ratio are collected.

Note: This objective was listed as 4.6 in HK 2010. It will now be referenced as 4.7R.

Data Source: Kentucky Department of Education, Office of Student and Family Support

Baseline: In the 1997-98 school year there was a nurse-to-student ratio of 1:1831.25 (342 nurses for 626,288 students). In that same school year, there were 29 school districts with no nurses (Kentucky Legislative Task Force on Health in Schools, 1999).

HK 2010 Target: 1:750

Mid-Decade Status: In the 2004-2005 school year there was a nurse-to-student ratio of 1:1426 (458 nurses for 653,248 students). In that same year, there were 22 school districts with no nurses (KDE Max People Manager Directory Verification 2005).

Strategies to Achieve Objective:

- Identify resources to improve student health through consultation, technical assistance, and development of quality measures
- Facilitate statewide and local data collection and reporting of school health services
- Encourage school nurse certification as defined by the Kentucky Educational Professional Standards Board

Objectives for the Workplace Setting
4.8. (Developmental) Increase to at least 50 percent of worksites in Kentucky that offer a health promotion activity, preferably as part of a comprehensive worksite health promotion program.

**Data Source:** 2001 Kentucky Cardiovascular Health Worksite Survey

**Baseline:** Of Kentucky Worksites with 100 or more employees, 39 percent offered a health promotion activity in conjunction with a comprehensive worksite health promotion program in 2001.

**HK 2010 Target:** 50 percent

**Mid Decade Status:** See baseline

**Data Needs:** Repeat Worksite Survey to assess 2010 status

**Strategies to Achieve Objective:**

- Cabinet for Health and Family Services (CHFS) will lead by example in maintaining an employee worksite wellness program which includes physical activity and nutrition activities.
- Kentucky Department for Public Health (KDPH) will continue to work with local health departments to provide assistance to any worksite interested in developing and/or expanding a comprehensive worksite health promotion program.
- KDPH will continue to work with local health departments to provide health promotion activities to community worksites as well as local health department staff.
- Provide statewide training on “Winners Circle”. “Winner’s Circle” will provide guidelines and implementation strategies to promote healthful eating in worksite vending and cafeterias.
- Provide information to employers on incentive-based programs to encourage physical activity, such as pedometer walking challenges.
- Encourage employers to enact policies to support new mothers in breastfeeding.
- Encourage employers to develop policies or guidelines for providing healthy food and beverage options at work related gatherings (work meetings or social events).

4.9. (Developmental) Increase to at least 37 percent the number of employees who participate in one or more “employer-sponsored” health promotion activities.

**Data Source:** 2001 Kentucky Cardiovascular Health Worksite Survey

**Baseline:** 23 percent in 2001
HK 2010 Target: 37 percent

Mid Decade Status: See baseline

Data Needs: Repeat worksite survey to assess 2010 status

Strategies to Achieve Objective:

- See strategies for Objective 4.8.

Objectives for the Community Setting

Community Health Education and Health Promotion

4.10. (Developmental) Increase by 25 percent the percentage of patients who report they are satisfied with the communication they receive from their health care providers about how decisions are made about their health care. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are anticipated in the near future.

4.11. Increase by 65 percent the percent of health care organizations that provide patient and family education. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are anticipated in the near future.

4.12. (Developmental) Increase to 50 percent the proportion of managed care organizations and hospitals that provide community disease prevention and health promotion activities that address the priority health needs identified by their communities. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are anticipated in the near future.

4.13. Maintain the annual operating standard of 100 percent of Local Health Departments that submit a community health promotion plan that addresses multiple Healthy People 2010 focus areas.

Note: In HK 2010 this objective was listed as 4.12. The objective will now be referenced as 4.13.
Data Source: Annual Community Based Activity Plans of Local Health Departments submitted to the Division of Administration and Financial Management.

Baseline: 100 percent of Local Health Departments submitted a Community Based Plan which included assessment, targeted objectives, strategies and evaluation as of July 1999.

HK 2010 Target: 100 percent

Mid-Decade Status: 100 percent of Local Health Departments submitted a Community Based Plan which included assessment, targeted objectives, strategies and evaluation as of July 2005.

Strategies to Achieve Objective:

- This objective has been met. However, KDPH will strive to maintain this high level of achievement by continuing to require local health departments to submit a community based plan of activities which addresses Healthy Kentuckians 2010 Prevention Initiatives on a yearly basis.
- KDPH staff will provide technical assistance to local health departments to enable full implementation of each community plan.
- Continue to improve coordination and collaboration across programs and branches within the KDPH.
- Focus on Public Health CORE Functions/Activities/Services and Mandated Preventive Health Care.
- Develop new initiatives as needed.
- Concentrate efforts on communities/public health agencies that have yet to meet objective(s).

4.14. (Developmental) Increase by 50 percent the proportion of Local Health Departments that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs for racial and ethnic minority populations.

Data Source: Annual Community Based Activity Plans of Local Health Departments submitted to the Division of Administration and Financial Management.

Baseline: 5 local health departments reported providing 27 activities to 615 participants addressing objective 4.14 during Fiscal Year 2002.

HK 2010 Target: 8 local health departments
Mid-Decade Status: During Fiscal Year 2003, 6 local health departments reported providing 19 activities to 2,176 participants addressing Objective 4.14.

Strategies to Achieve Objective:

- Provide education and training on cultural diversity to local health department staff
- Utilize the Migrant Network Coalition, Hispanic Coalition, Korean/Asian Coalition and the African/American community in assessing, planning, implementing and evaluating programs for targeted populations
- Utilize the Department for Adult Education and Literacy in planning programs for this population
- Utilize the Minority Management Training Coordinator from the Public Health Training Branch
- Designate monthly, a different cultural diversity topic for local health departments

4.15. (Developmental) Increase by 25 percent the proportion of people age 65 and older that have participated during the preceding year in at least one organized health promotion program sponsored by local health departments.

Data Source: Community Based Planning Data Warehouse

Baseline: 30,544 people age 65 and older participated in at least one community-based health education/promotion program conducted by local health departments during Fiscal Year 2003.

HK 2010 Target: 25 percent increase over baseline would equal 38,180 seniors participating in a program conducted by local health departments.

Mid-Decade Status: During Fiscal Year 2004, 49,872 people age 65 and older participated in at least one community-based health education/promotion program conducted by local health departments. This is a 61 percent increase from the previous fiscal year.

Strategies to Achieve Objective:

- Increase the number of local health department community-based plans that target people age 65 and older.
- Increase participation in Pacesetters Walking Program.
- Encourage participation/attendance at seminars especially for the elderly, such as the Summer Series on Aging and the “Brown Bag” at local health departments--which consists of nutritional screening, treatment, dentistry checks, etc.
• Increase the number of local health departments who offer “Body Recall” aerobic workout classes.

References

• 1993-2004 Nonacademic Briefing Packet (State Summary), Kentucky Department of Education Office of Assessment and Accountability
• Kentucky Board of Education, Strategic Plan Progress Report, 2005
• Kentucky Legislative Task Force on Health in Schools, 1999
• Kentucky Department of Education Max People Manager Directory Verification, 2005

Contributors

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• Karen Erwin, RN, MSN, Education School Nurse Consultant, Division of Nutrition and Health Services, Kentucky Department of Education
## 4. Educational and Community Based Programs – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Educational and Community Based Programs</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1. Increase to at least 90 percent the number of individuals, through age 24, who have completed high school.</td>
<td>74.7% (2000)</td>
<td>≥90%</td>
<td>74.7% (2000)</td>
<td>N/A</td>
<td>Census</td>
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<tr>
<td>4.2. Reduce the annual dropout rate for students enrolled in grades 9-12, to a rate of less than 5 percent.</td>
<td>5.2% (1997)</td>
<td>≤5%</td>
<td>3.4% (2004)</td>
<td>Target Achieved</td>
<td>KY Dept. of Education</td>
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<td>4.3 (DELETED)</td>
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<tr>
<td>4.4R. Increase to or maintain at 95 percent the proportion of public middle and high schools that require instruction in the areas that contribute to the leading causes of morbidity and mortality among youth.</td>
<td>See Below</td>
<td>Increase to or Maintain at 95%</td>
<td>See Below</td>
<td></td>
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<tr>
<td>2002 Baseline</td>
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<td></td>
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<tr>
<td>HIV Prevention</td>
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<td>Sexually Transmitted Diseases</td>
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<td>Human Sexuality</td>
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<td>Accident or Injury Prevention</td>
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<td>Alcohol or Other Drug Prevention</td>
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<td>97.4</td>
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<td>Suicide Prevention</td>
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<td>83.6</td>
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<td>Tobacco Use Prevention</td>
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<td>Violence Prevention</td>
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<td>90.1</td>
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<td>Benefits of Healthy Eating</td>
<td>100</td>
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<td>Risks of Unhealthy Weight Control</td>
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<td>Accepting Body Size Differences</td>
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<td>Decreasing Sedentary Activity</td>
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<tr>
<td>4.7R. Increase the nurse to student ratio to 1:750 among Kentucky’s elementary, middle and junior high schools.</td>
<td>1:1831.25 (1997-98)</td>
<td>1:750</td>
<td>1:1426 (2004-05)</td>
<td>Yes</td>
<td>KY Dept. of Education</td>
</tr>
<tr>
<td>Summary of Objectives for Educational and Community Based Programs</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
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<td>---------------------------------------------------------------</td>
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<tr>
<td>4.8. (Developmental) Increase to at least 50 percent of worksites in Kentucky that offer a health promotion activity, preferably as part of a comprehensive worksite health promotion program.</td>
<td>39% (2001)</td>
<td>≥50%</td>
<td>39% (2001)</td>
<td>N/A</td>
<td>CHWS</td>
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<tr>
<td>4.9. (Developmental) Increase to at least 37 percent the number of employees who participate in one or more “employer-sponsored” health promotion activities.</td>
<td>23% (2001)</td>
<td>≥37%</td>
<td>23% (2001)</td>
<td>N/A</td>
<td>CHWS</td>
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<td>4.10 – 4.12. (DELETED)</td>
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<tr>
<td>4.13. Maintain the annual operating standard of 100 percent of Local Health Departments that submit a community health promotion plan that addresses multiple Healthy People 2010 focus areas.</td>
<td>100% (1999)</td>
<td>100%</td>
<td>100% (2005)</td>
<td>Target Achieved</td>
<td>Activity Plans of LHDs</td>
</tr>
<tr>
<td>4.14. (Developmental) Increase by 50 percent the proportion of Local Health Departments (LHDs) that have established culturally appropriate and linguistically competent community health promotion and disease prevention programs for racial and ethnic minority populations.</td>
<td>5 LHDs reported providing 27 activities to 615 participants (FY 2002)</td>
<td>8 LHDs During fiscal year 2003, 6 LHDs reported providing 19 activities to 2,176 participants (FY 2003)</td>
<td>Yes</td>
<td>Activity Plans of LHDs</td>
<td></td>
</tr>
<tr>
<td>4.15. (Developmental) Increase by 25 percent the proportion of people age 65 and older that have participated during the preceding year in at least one organized health promotion program.</td>
<td>30,544 65 and older participants via LHD programs (FY 2003)</td>
<td>≥38,180</td>
<td>49,872 65 and older participants via LHD programs (FY 2004)</td>
<td>Target Achieved</td>
<td>Community Based Planning Data Warehouse</td>
</tr>
</tbody>
</table>

N/A = Only baseline data are available. Not able to determine progress at this time.
5. Environmental Health

Goal

Health for all through a healthy environment.

Overview

According to the National Center for Environmental Health of the Centers for Disease Control and Prevention—Environmental public health is the discipline that focuses on the interrelationships between people and their environment, promotes human health and well-being, and fosters a safe and healthful environment.

As one can tell from the definition, environmental health is very broad and all encompassing. Just the portion of the definition associated with fostering a safe and healthful environment covers a wide range of issues from assuring safe drinking water to reducing beach and recreational water contamination, air pollution, lead exposure in our homes, and environmental exposures to mercury, hepatitis A, and other toxins and pathogens.

The Kentucky Department for Public Health and its partners have strived to protect and ensure a safe environment through policies, enforcement, inspections, and implementation of new processes for emerging environmental health problems and concerns. We will continue to work jointly to protect the health and safety of Kentuckians as well as the environment of Kentucky.

Summary of Progress

Kentucky, through its partnerships with the Poison Control Center, Department for Environmental Protection, Division of Conservation, Department of Fish and Wildlife, and Department for Public Health, has made considerable progress towards a healthier environment. Progress has been made toward reaching the targets of many of the HK 2010 objectives; however, efforts need to be refocused on other objectives to achieve their targets.

Some steps that have been taken include: continued surveillance of waterborne diseases (Kentucky had no outbreaks associated with drinking water as of 2005) and a continued focus on reducing the number of children who are poisoned each year. The baseline for receiving best management plans for agricultural water quality in 2000 was 5,500 plans. By midyear of 2005, 59,000 plans had been received, far exceeding the target. The Kentucky Lead Program has also experienced success. The Lead Program implemented an abatement permits and risk assessment/inspection review to ensure
corrective action is taken on homes found to have lead. Progress has been made

 toward achieving targets in lead abatement activities pertaining to housing.

Other program areas which will be implementing new initiatives are the Consumer

 Products Section which will begin a partnership with the Department for Environmental

 Protection. The Consumer Products Section will establish a product safety database in

 2006 to monitor and report on injuries and deaths to children from defective products.

 The database will enable the Department for Public Health to better monitor injuries and

 allow the Department to take timely action to avoid preventable deaths in children.

The ongoing relationship between the Departments for Environmental Protection and

 Public Health has facilitated the creation of more dynamic and robust objectives in the

 areas of health and environmental air quality. These new objectives will be

 benchmarked in 2005 and 2006. As a result of these new objectives, the impact of air

 toxins as a whole can be assessed and non-attainment areas for ozone and particulates

 can be identified. Consequently, Kentucky will be better able to assess the impact of air

 quality on Kentuckians with asthma, chronic obstructive pulmonary disease (COPD),

 and other respiratory illnesses. Kentucky will also be in a better position to monitor the

 impact of state initiatives on air quality and on our citizens’ health.

Progress toward Achieving Each HK 2010 Objective

5.1.  (Developmental) Ensure that there are no outbreaks of waterborne
disease arising from water intended for drinking.

Data Source: Kentucky Electronic Public Health Records

 System (KYEPHRS)

Baseline: 0 outbreaks in 2000

HK 2010 Target: 0 outbreaks per year

Mid-Decade Status: 0 outbreaks in 2005

Strategies to Achieve Objective:

• Continued surveillance and use of the new reportable disease system,

  KYEPHRS which will be upgraded to include as part of each case a
  designation for waterborne related event/disease

5.2.  (Developmental) Reduce the potential human exposure to toxic
chemicals by reducing fish contaminant levels. (DELETED)

Reason for Deletion: This objective is similar to objective 6.10 in Chapter

  6, Food Safety.

5.3.  (Developmental) Reduce the number of beach closings and water
recreational use restrictions due to harmful bacteria. (DELETED)

Reason for Deletion: No database exists for tracking closings associated with a bacterial cause, and none is anticipated in the near future.

5.4. (Developmental) Support and track compliance with the “Best Management Practices” as set forth by the Agriculture Water Quality Authority.

5.4R. Increase the number of Best Management Plans set forth by the Agriculture Water Quality Act by 80 percent.

Revision: Objective was revised so that it could be measured with an appropriate data source.

Data Source: Best Management Plan Database

Baseline: 5,500 plans in 2000

HK 2010 Target: 9,900 plans

Mid-Decade Status: 59,296 plans in 2005

Strategies to Achieve Objective:

- Assure an ongoing professional working relationship among agencies concerned with water quality --Ensuring the quality of Kentucky’s water is largely dependent on compliance with non-pollution waste management practices. Malfunctioning septic systems and municipal treatment plants, along with mismanagement of agricultural waste, are major factors in water pollution in Kentucky. Government agencies in public health, environmental protection, and agriculture must work together to establish and enforce acceptable water treatment and protection practices. (Kentucky Natural Resources and Environmental Protection Cabinet, 1999)

5.5. Eliminate the risk of lead exposure from improper abatement activities in target housing or child occupied facilities.

5.5.1R. Increase the number of abatement permits for lead housing projects to 115 per grant fiscal year.

Revision: Objective was revised so that it could be measured with an appropriate data source.
Data Source: Environmental Lead Program Reporting System

Baseline: 7 permits issued in 2000

HK 2010 Target: 115 permits issued during grant fiscal year

Mid-Decade Status: 85 permits issued in 2004 grant fiscal year

5.5.2R. For lead in housing, increase the number of risk assessments/inspections reviewed to 400 reports per grant fiscal year.

Revision: Objective was revised so that it could be measured with an appropriate data source.

Data Source: Environmental Lead Program Reporting System

Baseline: 7 reviewed in 2000

HK 2010 Target: 400 reviewed

Mid-Decade Status: 307 reviewed in 2004
5.6. (Developmental) **Reduce the prevalence of respiratory disease, cardiovascular disease, and cancer resulting from exposure to tobacco smoke.** *(DELETED)*

**Reason for Deletion:** This objective is deleted because there are similar objectives in Chapter 3, Tobacco Use.

5.7. (Developmental) **Reduce deaths and nonfatal poisonings of children from exposures to household chemicals.** *(See Revision)*

5.7R. (REVISION) **Reduce nonfatal poisonings of children less than 19 years of age from exposures to household chemicals by 1 percent.**

**Revision:** Objective was revised so that it could be measured with an appropriate data source.

**Data Source:** TESS (Toxic Exposure Surveillance System)

**Baseline:** 8,400 children poisoned in 2000

**HK 2010 Target:** 8,316 children poisoned

**Mid-Decade Status:** 9,044 children poisoned in 2004
Strategies to Achieve Objective:

- Assure quality in the content of poison prevention educational materials and to facilitate distribution of these materials to families with young children, daycare centers, schools, and local health departments, and to promote educational presentations in poison prevention for health professionals.
- Promote awareness of the Poison Control Center’s toll free telephone number by distribution of stickers and by publication of the number in local telephone directories across Kentucky.
- Assure the publication of the Poison Control Center’s annual report which provides information/data on the statistical trends of poisoning prevention efforts.
- Undertake periodic assessments and recommend needed policy or regulatory changes which may reduce poison exposures and deaths.

5.8. (Developmental) Decrease the risk of lung cancer and other respiratory illnesses due to radon exposure (See Revision)

5.8R. (REVISION) Increase the number of “short” radon test kits conducted.

Reason for Revision: Objective was revised so that it could be measured with an appropriate data source. Short term radon tests remain in the home from 2 to 90 days depending on the device.

Baseline: 2042 tests in 2000
HK 2010 Target:  3000 tests

Mid-Decade Status:  2801 tests in 2003

![Figure 5.4 Number of "Short" Radon Test Kits Conducted by Year, Kentucky, 2000-2003 (Source: TESS)](image)

Strategies to Achieve Objective:

- Codify Radon Regulations by 2006
- Develop tracking mechanisms in late 2005 for number of radon laboratory tests conducted
- Develop tracking mechanisms in 2006 for number of homes which install commercial radon mitigation systems

5.9.  (Developmental) Monitor diseases that can be caused by exposure to environmental hazards.  (DELETED)

Reason for Deletion:  No comprehensive and uniform data is collected on diseases associated with environmental hazards.

5.10.  (Developmental) Reduce the annual incidence of illness caused by human exposure to infectious diseases transmitted from domestic and wild animals. (DELETED)

Reason for Deletion: Kentucky has a surveillance system but has limited capacity for tracking all cases caused by animal exposure.

5.11.  (Developmental) To reduce the health effects due to indoor air pollution in public schools. (DELETED)
Reason for Deletion: No data are available, and none are anticipated in the near future.

5.12. (Developmental) **Reduce the number of injuries and deaths in children caused by defective consumer products.**

**Data Source:** Product Safety Database

**Baseline:** Unknown

**HK 2010 Target:** Reduce the number of injuries and deaths in children from defective consumer products

**Mid-Decade Status:** Unknown

**Strategies to Achieve Objective:**

- The Division epidemiologist and assigned staff will monitor the number of displays, demonstrations, exhibits, and promotional/educational materials distributed by the Product Safety Program.
- The epidemiologist/staff will review data from the National Center for Injury Prevention and Control and other sources to determine if Kentucky has a higher rate of children injured by defective consumer products than the rest of the Nation.
- Develop database in 2006 to track the number of injuries and deaths due to defective consumer products; baseline to be established in 2006
- Develop data system to capture number of events conducted and persons contacted regarding consumer product safety issues and defective products

5.13. (Developmental) To reduce health effects due to air pollution. *(DELETED)*

**Reason for Deletion:** New objectives for air pollution, objectives 5.14N and 5.15N, have been created per guidance issued by the Environmental Protection and Promotion Cabinet.

5.14N. *(NEW OBJECTIVE)* Ensure all areas of the state designated by U.S EPA as not meeting an Ambient Air Quality Standard are brought into compliance to provide healthy air quality for all citizens of the Commonwealth.
Data Source: Federal AQS (Air Quality Systems) database. (Kentucky and all states submit criteria pollutant monitoring information into this database.)

Baseline: In 2004, 8 counties within Kentucky were designated as non-attainment areas for the 8-hr ozone standard, and in April 2005, 6 counties and a portion of a 7\textsuperscript{th} were designated as not meeting the fine particulate standard.

HK 2010 Target: All areas brought into compliance with federal standards by 2010.

Mid-Decade Status: In fall 2005, 8 counties still remained as non-attainment areas and 6 counties still did not meet the fine particulate standard.

Strategies to Achieve Objective:

- Monitor air quality by continuing to operate ozone monitors and fine particulate samplers as appropriate
- Track emissions of air pollutants within the state that contribute to ozone and fine particulate formation
- Prepare and evaluate plans (State Implementation Plans) for the attainment and maintenance of fine particulate and 8-hour ozone standards as required by the U.S. EPA or as determined appropriate by the Commonwealth of Kentucky
- Promulgate regulations to implement federal and state emission reduction strategies or programs to attain 8-hour ozone and fine particulate standards, including the \textit{Clean Air Interstate Rule} to keep emissions within acceptable levels once attainment has been achieved
- Maintain existing methods and research additional methods of partnering with state/local/private organizations to focus on the importance of maintaining compliance with ambient air quality standards and reducing air pollution

5.15N. (NEW OBJECTIVE) Reduce hazardous and toxic air pollutants to levels that protect Kentucky's citizens from excess cancer incidence and/or unacceptable risks.

Data Source: Kentucky emissions inventory database

Baseline: Unknown

HK 2010 Target: Reduce air pollutants to acceptable levels

Mid-Decade Status: Unknown
Strategies to Achieve Objective:

- Agency (Environmental Protection and Promotion Cabinet) is developing a revised air toxins program which will further define and establish specific actions by sources of air toxins in the Commonwealth. This may include enhanced emissions reporting and comparisons of such data to deminimus values.
- Air toxins database will be completed in 2006

Terminology

**Best Management Practices (BMP):** Each BMP includes definitions and descriptions, regulatory requirements, Agriculture Water Quality Authority requirements, design information, practice maintenance, technical assistance, cost share assistance, recommendations and references. The statewide plan serves as the guide to individual landowners/land users as they develop water quality plans for their individual operations.

**Air toxins:** Known as hazardous air pollutants, these are those pollutants in the air that are known or suspected to cause cancer or other serious health effects, such as reproductive effects or birth defects, or adverse environmental effects. Listed presently are 188 pollutants /air toxins.

Contributors

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- Kurtis Kirk, Division of Conservation, Environmental Public Protection Cabinet
• Steve Coleman, Division of Conservation, Environmental Public Protection Cabinet
• Henry Spiller, Kentucky Regional Poison Control Center
## 5. Environmental Health – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Environmental Health</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1. (Developmental) Ensure that there are no outbreaks of waterborne disease in water intended for drinking.</td>
<td>0 (2000)</td>
<td>0</td>
<td>0 (2005)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
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<td>5.2 – 5.3. (DELETED)</td>
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<tr>
<td>5.5.1R. Increase the number of abatement permits for lead housing projects to 115 per grant fiscal year.</td>
<td>7 (2000)</td>
<td>≥115</td>
<td>85 (2004)</td>
<td>Yes</td>
<td>Env. Lead Rep. System</td>
</tr>
<tr>
<td>5.5.2R. For lead in housing, increase the number of risk assessments/inspections reviewed to 400 reports.</td>
<td>7 (2000)</td>
<td>≥400</td>
<td>307 (2004)</td>
<td>Yes</td>
<td>Env. Lead Rep. System</td>
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<td>5.6. (DELETED)</td>
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<tr>
<td>5.8R. Increase number of “short” radon test kits conducted.</td>
<td>2042 (2003)</td>
<td>≥3000</td>
<td>2801 (2003)</td>
<td>Yes</td>
<td>Public Protection and Safety Database</td>
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<tr>
<td>5.12. Reduce the number of injuries and deaths to children caused by defective consumer products.</td>
<td>Database to be developed in 2006</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td></td>
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<tr>
<td>5.13. (DELETED)</td>
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<tr>
<td>5.14N. Ensure all areas of the state designated by U.S EPA, as not meeting an Ambient Air Quality Standard, are brought into compliance to provide healthy air quality for all citizens of the Commonwealth.</td>
<td>8 counties deemed non-attainment for 8 hour ozone (2004); 6 counties deemed non-attainment for fine particulate (2005)</td>
<td>All counties Re-designated to attainment</td>
<td>8 counties deemed non-attainment for 8 hour ozone (2005); 6 counties deemed non-attainment for fine particulate (2005)</td>
<td>No</td>
<td>Federal Air Quality Systems Database</td>
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<tr>
<td>Summary of Objectives for Environmental Health</td>
<td>Baseline</td>
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<tr>
<td>5.15N. Reduce hazardous and toxic air pollutants to levels that protect Kentucky's citizens from excess cancer incidences and/or unacceptable risks.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

R = Revised objective, N = New objective  
TBD = To be determined. No reliable data currently exist.
6. Food Safety

Goal

Reduce the number of foodborne illnesses.

Overview

The Centers for Disease Control and Prevention (CDC) receive confirmed reports of thousands of foodborne illnesses each year. The number of foodborne illnesses increases significantly when unreported cases are taken into account: an estimated 76 million illnesses, 325,000 hospitalizations, and 5,000 deaths in the United States may be attributable to foodborne illnesses. While the number of foodborne illnesses reported annually in Kentucky is only in the hundreds, it is recognized that only a small percentage of cases are actually reported.

Many factors make foodborne illnesses a growing problem in Kentucky as well as the rest of the nation. The numbers of elderly and immuno-compromised are on the rise. Our food industry has a large number of employees. This creates a high turnover rate, In addition, the employees are increasingly diverse, which may create language barriers. Not all consumers are knowledgeable about safe food preparation practices in the home. Many foods found in our groceries and restaurants may have been produced in another country. We are also becoming cognizant of new and emerging pathogens which were previously not recognized as pathogens in food. Many of these new and emerging pathogens may be resistant to previously effective antibiotics. Another significant factor in increased reporting of pathogens is the database management and data reporting practices now available to capture information. Lastly, sensitivity to possible deliberate contamination of the food supply has increased reporting.

Summary of Progress

Solid progress has been made toward the 2010 objectives. Kentucky is on schedule for adopting the 2001 FDA Food Code this year, which will be utilized in the regulation of food safety in all retail food establishments. Also in 2006, Kentucky plans to adopt a statewide food manager certification program. A field prototype program is underway. The Program will require that at least one certified manager will be on duty at all times that a retail food establishment is in operation.

Additionally, a food-borne illness surveillance investigation collection form and the Kentucky reportable disease forms are being utilized so that data may be collected for food related diseases stemming from bacteria and parasites. Cryptosporidium has been added to the Kentucky Reportable Disease Surveillance System.
There has been an increased effort to inform consumers of key food safety practices. The food safety curriculum for teaching students throughout Kentucky has been maintained, and both Spanish and Chinese FSAST (Food Safety Accreditation Student Training) videos are being developed.

**Progress toward Achieving Each HK 2010 Objective**

6.1. (Developmental) Reduce the proportion of infections caused by bacteria, parasites, and key foodborne pathogens. Reduce the yearly outbreaks of infections due to *Salmonella* serotype *Enteritidis* and *Escherichia coli* O157:H7.

**Data Source:** Kentucky Electronic Public Health Records System (KYEPHRS)

**Baseline:** *Escherichia coli* O157:H7 - 40 reported cases in 2000

**HK 2010 Target:** Reduce by 5 percent the number of reported cases of *Escherichia coli* 0157: 38 reported cases

**Mid-Decade Status:** Escherichia coli 0157:H7 – 31 reported cases in 2004

![Figure 6.1 Number of Escheria coli O157H7 Cases, Kentucky, 2000-2004](Source: KYEPHRS)

**Data Needs:** Data on *Salmonella* serotype *Enteritidis*. Salmonella is being reported currently, but there is no serotype.

**Strategies to Achieve Objective:**
• Pursue the addition of *Salmonella* serotype *Enteritidis* to the list of food related illnesses to be reported and investigated

• Improve the method of collecting and reporting data for foodborne bacteria and foodborne parasites

6.1a. (Developmental) Reduce foodborne infections caused by the parasitic pathogens *Cryptosporidium parvum*, *Cyclospora cayetanensis*, hepatitis A virus, and Norwalk virus.

**Data Source:** Kentucky Electronic Public Health Records System (KYEPHRS)

**Baseline:** *Cryptosporidium parvum* – 7 cases reported in 2000; Hepatitis A – 63 cases reported in 2000

**HK 2010 Target:**
*Cryptosporidium parvum* cases - 6 cases reported
Hepatitis A - 60 cases reported

**Mid-Decade Status:** *Cryptosporidium parvum* – 47 cases reported in 2004
Hepatitis A virus – 31 cases reported in 2004

![Figure 6.2 Number of Cryptosporidium parvum Cases, Kentucky, 2000-2004](Source: KYEPHRS)
**Data Needs:** Data on *Cyclospora cayetanensis*, Norwalk virus, and postdiarrheal hemolytic uremic syndrome are not being reported currently.

**Strategies to Achieve Objective:**

- Pursue the addition of *Cyclospora cayetanensis* and Norwalk virus to the list of food related illnesses to be reported and investigated
- Currently working on adopting the 2001 FDA Food Code
- Currently working on implementing a Food Protection Manager Certification Program for retail food managers
- Implement the Primary Education Food Safety Curriculum
- Make available educational food safety materials at public gatherings
- Improve the method of collecting and reporting data for foodborne infections

**6.1.b.(Developmental) Reduce the incidence of postdiarrheal hemolytic uremic syndrome (DELETED).**

**Reason for Deletion:** Corresponds to data in objective 6.1 for *Escherichia coli* O157:H7

**6.2. Reduce the annual incidence of infection from *Listeria monocytogenes* and *Vibrio vulnificus*.**

**Data Source:** KYEPHRS

**Baseline:** *Listeria monocytogenes* – 4 cases reported in 2000
*Vibrio vulnificus* - 0 cases reported in 2000

---

**Figure 6.3 Number of Cases of Hepatitis A, Kentucky, 2000-2004 (Source: KYEPHRS)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>63</td>
</tr>
<tr>
<td>2001</td>
<td>145</td>
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<tr>
<td>2002</td>
<td>47</td>
</tr>
<tr>
<td>2003</td>
<td>36</td>
</tr>
<tr>
<td>2004</td>
<td>31</td>
</tr>
<tr>
<td>2005</td>
<td>60</td>
</tr>
</tbody>
</table>

**HK 2010 Mid-Decade Review**
HK 2010 Target: *Listeria monocytogenes* – at or below 3 cases per year

*Vibrio vulnificus* – at or below 1 case per year

Mid-Decade Status: *Listeria monocytogenes* - 4 cases reported in 2004

*Vibrio vulnificus* – 1 case reported in 2004. No cases reported from 2000 – 2003.

**Figure 6.4** Number of Cases of *Listeria monocytogenes*, Kentucky, 2000-2004
(Source: KYEPHRS)

Strategies to Achieve Objective:

- Implement same strategies as for Objectives 6.1 and 6.1a

6.3. (Developmental) Reduce foodborne infections caused by antimicrobial-resistant bacterial pathogens of the species *Salmonella*, *Campylobacter*, and *Escherichia coli* in humans and the prevalence of resistant pathogens collected from animals.

6.3R. (Developmental) Reduce foodborne infections caused by antimicrobial-resistant bacterial pathogens of the species *Salmonella* and *Campylobacter*.

Reason for Revision: *Escherichia coli* was removed from this objective because it is tracked by objective 6.1. No reliable data set exists for tracking resistant pathogens collected from animals.

Data Source: KYEPHRS

Baseline:

*Salmonella* - 393 cases reported in 2000;

*Campylobacter* - 213 cases reported in 2000
HK 2010 Target: Reduce by 5 percent the number of cases of reported *Salmonella* and *Campylobacter*
*Salmonella* - 373 cases
*Campylobacter* - 202 cases

Mid-Decade Status: *Salmonella* - 361 cases reported in 2004
*Campylobacter* - 273 cases reported in 2004

**Figure 6.5** Number of Cases of the Species *Salmonella*, Kentucky, 2000-2004
(Source: KYEPHRS)

**Figure 6.6** Number of Cases of the Species *Campylobacter*, Kentucky, 2000-2004 (Source: KYEPHRS)

Strategies to Achieve Objective:

- Implement similar steps as those for Objectives 6.1 and 6.1a

6.4. (Developmental) Make food-induced anaphylaxis death a reportable condition. Because allergens are present in a variety of foods, and
because even trace amounts of these allergens can induce anaphylaxis, education and clear ingredient information are critical to the management of food allergy.

**Potential Data Source:** Reports to the Division of Epidemiology and Health Planning

**Mid-Decade Status:** Food-induced anaphylaxis death is not a reportable disease.

**Data Needs:** Data on food-induced anaphylaxis death

**Strategies to Achieve Objective:**

- Ensure that these food related deaths are reported to and investigated by the Division of Epidemiology and Health Planning

6.5. **(Developmental) Increase the proportion of consumers who practice each of the four key food handling practices:**

1) Clean: wash hands after touching raw meat or poultry
2) Separate: clean and sanitize cutting board or use a different board after cutting raw meat or poultry
3) Cook hamburgers thoroughly
4) Chill: refrigerate promptly

**Potential Data Source:** A survey to be developed by the Food Safety Branch in 2006

**Data Needs:** Data on the proportion of consumers who practice each of the four key food handling practices

**Strategies to Achieve Objective:**

- Develop and administer a survey(s) that would measure if consumers are practicing the four key food handling practices
- Provide food safety educational press releases that list the four key food handling practices

6.6. **(Developmental) Reduce the occurrences of the following factors in retail food establishments: improper holding temperatures, inadequate cooking, poor personal hygiene, contaminated equipment, and using foods from unsafe sources.**

**Potential Data Source:** This retail food establishment inspection data will be collected in 2006
Data Needs: Data on the following factors in retail food establishments: improper holding temperatures, inadequate cooking, poor personal hygiene, contaminated equipment, and foods from unsafe sources

Strategies to Achieve Objective:
- Conduct training in the use of the Food Code by retail food handlers

6.7. (Developmental) Assess the effect of changes in pesticide residue tolerances mandated by the Food Quality Protection Act.

Potential Data Source: Office of Pesticide Programs, Environmental Protection Agency.

Data Needs: Data on the effect of changes in pesticide residue tolerances mandated by the Food Quality Protection Act.

Strategies to Achieve Objective:
- Attempt to get data from the Environmental Protection Agency
- Analyze data from the Department for Public Health’s raw agricultural produce pesticide sampling program
- Determine what additional monitoring, if any, is necessary

6.8. (Developmental) Increase to at least 75 percent the proportion of households in which principal food preparers routinely refrain from leaving perishable food out of the refrigerator for over 2 hours and clean and sanitize cutting boards and utensils after contact with raw meat and poultry.

Potential Data Sources: Conduct surveys to measure progress at the Kentucky State Fair. Local health departments could conduct surveys for the same purpose at local public gatherings. Plan to implement these surveys in FY 2006-2007.

Data Needs: Data are needed on households in which principal food preparers routinely refrain from leaving perishable food out of the refrigerator for over 2 hours and clean and sanitize cutting boards and utensils after contact with raw meat and poultry.

Strategies to Achieve Objective:
- Provide food safety educational handout materials for distribution at fairs, special public events, church and civic group meetings
• Provide food safety training video and educational materials to all local health departments for use in educating the general public
• Develop a survey that would measure the percentage of households in which principal food preparers routinely refrain from leaving perishable food out of the refrigerator for over 2 hours and clean and the percentage that sanitize cutting boards and utensils after contact with raw meat and poultry

6.9. Maintain raw agricultural produce pesticide sampling and monitoring program (approximately 200 samples annually) for produce grown in Kentucky.

Data Source: Department for Public Health test samples

Mid-Decade Status: Program is being maintained

Strategies to Achieve Objective:

• Maintain the raw agricultural produce pesticide sampling and monitoring program for testing produce grown for sale
• Collect random samples of fresh fruits and vegetables grown for retail sale
• Analyze the samples
• Report results from the analysis
• Maintain results in database

6.10. (Developmental) Conduct fish tissue contaminant analysis (approximately 20 samples annually) for methyl mercury, PCB and chlordane on samples of edible fish species collected from Kentucky-permitted commercial fish processing establishments and harvested from Kentucky waterways open to commercial fishing.

Data Source: Completed Lab form 504, Report of Laboratory Analysis, for fish samples which are analyzed for pesticide and chemical residues in accordance with established federal tolerance/action levels for fish harvested for commercial processing and distribution

Baseline: 28 fish tissue contaminant analyses conducted in 2000

HK 2010 Target: At least 20 fish tissue contaminant analyses conducted annually

Mid-Decade Status: 18 fish tissue contaminant analyses conducted in 2004
Figure 6.6 Number Fish Tissue Contaminant Analyses, Kentucky, 2000-2004
(Source: Lab Form 504, Report of Laboratory Analysis)

Strategies to Achieve Objective:

- Maintain the fish-sampling objective of testing edible fish tissue in fish harvested from the state’s waterways that are subject to fish consumption advisories

6.11. Maintain inspection surveillance (approximately 1,000 inspections annually) and enforcement under the authority of KRS 217.005 to 217.285 for Kentucky’s approximately 1400 food manufacturing and storage firms.

Data Source: Department for Public Health surveillance inspection reports

Baseline: 1,049 inspections conducted in 2000

HK 2010 Target: at least 1,000 inspections annually

Mid-Decade Status: 1,180 inspections conducted in 2004
Figure 6.7 Number of Inspections of Food Manufacturing and Storage Firms, Kentucky, 2000-2004 (Source: Inspection Surveillance Reports)

Strategies to Achieve Objective:

- Maintain the mandated surveillance level necessary to achieve safe food handling in the state’s food manufacturing and storage establishments which consists of:
  - Routine inspection surveillance
  - Collection of food samples to determine wholesomeness of foods
  - Review of food product labels to determine the status of misbranded foods

References

- Kentucky Reportable Disease Surveillance System, 2000-2004
- Kentucky Environmental Health Management Information System (EHMIS), 2000-2004
- Centers for Disease Control and Prevention (CDC) Surveillance for foodborne disease outbreaks-United States

Contributors

- Guy Delius, Assistant Director, Division of Public Health Protection and Safety, Department for Public Health, Chapter Co-Coordinator
- Pam Hendren, Retail Food Section Supervisor, Food Safety Branch, Division of Public Health Protection and Safety, Department for Public Health, Chapter Co-Coordinator
- David Jones, Epidemiologist, Division of Public Health Protection and Safety, Department for Public Health
- Mark Reed, Food Manufacturing Supervisor, Food Safety Branch, Division of Public Health Protection and Safety, Department for Public Health

HK 2010 Mid-Decade Review
• Anita Travis, Former Manager, Food Safety Branch, Division of Public Health Protection and Safety, Department for Public Health
### 6. Food Safety - Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Food Safety</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 (Developmental) Reduce the proportion of infections caused by bacteria, parasites and key foodborne pathogens. Reduce the yearly outbreaks for infections due to <em>Salmonella</em> serotype <em>Enteritidis</em> and <em>Escherichia coli</em> 0157:H7.</td>
<td>40 cases of <em>E Coli</em> 0157:H7 (2000)</td>
<td>38</td>
<td>31 cases of <em>E Coli</em> 0157:H7; Serotypes on <em>Salmonella</em> are not collected (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td></td>
<td><em>Cyclospora cayetanensis</em>: TBD (2000)</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hepatitis A: 63 cases (2000)</td>
<td>60</td>
<td>31</td>
<td>Target Achieved</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Norwalk virus: TBD (2000)</td>
<td>TBD</td>
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<td></td>
</tr>
<tr>
<td>6.1b. (DELETED)</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>6.2. Reduce the annual incidence of infection from <em>Listeria monocytogenes</em> and <em>Vibrio vulnificus</em>.</td>
<td><em>Listeria monocytogenes</em>: 4 cases; (2000)</td>
<td>At or below 3 cases per year</td>
<td>4 (2004)</td>
<td>No</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td></td>
<td><em>Vibrio vulnificus</em>: 0 cases (2000)</td>
<td>At or below 1 case per year</td>
<td>1 (2004)</td>
<td>Target Achieved</td>
<td></td>
</tr>
</tbody>
</table>
### Summary of Objectives for Food Safety

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.4. Make food-induced anaphylaxis death a reportable condition. Because allergens are present in a variety of foods, and because even trace amounts of these allergens can induce anaphylaxis, education and clear ingredient information are critical to the management of food allergy.</td>
<td>Not a reportable disease</td>
<td>Make food-induced anaphylaxis death a reportable condition</td>
<td>Not a reportable disease</td>
<td>No</td>
<td>Data on food-induced anaphylaxis death</td>
</tr>
<tr>
<td>6.5. (Developmental) Increase the proportion of consumers who practice each of the four key food handling practices.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>6.6. (Developmental) Reduce occurrences of improper holding temperatures, inadequate cooking, poor personal hygiene, contaminated equipment and foods from unsafe sources.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>6.7. (Developmental) Assess the changes in pesticide residue tolerances mandated by the Food Quality Protection Act.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>6.8. (Developmental) Increase to at least 75% the proportion of households in which principal food preparers routinely refrain from leaving perishable food out of the refrigerator for over 2 hours and clean and sanitize cutting boards and utensils after contact with raw meat and poultry.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>6.9. Maintain raw agricultural produce pesticide sampling and monitoring (approx. 200 samples annually).</td>
<td>Program has been maintained</td>
<td>Maintain Program</td>
<td>Program has been maintained</td>
<td>Target Achieved</td>
<td>Dept. for Public Health Test Samples</td>
</tr>
<tr>
<td>6.11. Maintain inspection surveillance (approx. 1,000 inspections annually) and enforcement under the authority of KRS 217.005 to 217.285 for Kentucky’s approximately 1400 food manufacturing and storage firms.</td>
<td>1,049 (2000)</td>
<td>1,000 (2004)</td>
<td>1,180 (2004)</td>
<td>Target Achieved</td>
<td>Inspection Surveillance Reports</td>
</tr>
</tbody>
</table>

TBD = To be determined. Reliable data do not exist.

HK 2010 Mid-Decade Review
7. Injury/Violence Prevention

Goal

To reduce the incidence and severity of injuries from unintentional causes, as well as death and disabilities due to violence.

Overview

In 2000, there were 4,005 unintentional injury deaths in Kentucky with an unintentional injury death rate of 46 deaths per 100,000 population, the 14th highest rate in the nation (National Safety Council, 2004). This rate is 29 percent above the national unintentional injury death rate of 35.6 deaths/100,000. Nonfatal occupational injury and illness incidence rates are also higher at 7.4 non-fatal injuries and illnesses per 100 full-time workers compared with the national rate of 5.7 injuries and illnesses per 100 full-time workers.

In Kentucky, the leading cause of unintentional death by injury is motor vehicle related incidents (21.1 deaths per 100,000 population), followed by poisoning (5.4 deaths per 100,000 population), falls (3.7 deaths per 100,000 population), choking (2.5 deaths per 100,000 population), and fire and burns (2.1 deaths per 100,000).

Summary of Progress

Significant progress has been made for a number of objectives: nonfatal spinal cord injury rates have decreased; safety belt and child restraint usage have increased; suffocations and unintentional drownings have decreased; fire-related and fall-related deaths have decreased; and homicide rates have declined. With regard to surveillance improvements, pilot collection of emergency department data for 10 Kentucky hospitals has started, and child fatality review teams cover about 50 percent of the state. Increased funding is needed to obtain statewide coverage.

Education, increased awareness, and targeted interventions are necessary for a number of 2010 objectives that are unlikely to be met. These include goals for reducing motor vehicle crash and pedestrian deaths, nonfatal motor vehicle crashes, nonfatal head injuries, nonfatal unintentional injuries, firearm-related deaths, and unintentional injury and poisoning deaths. Poisoning death rates have doubled as a consequence of the increase in illicit prescription drug use. A number of objectives related to violence need to be further addressed: child maltreatment, adult forcible rapes, and sexual assault.

Progress toward Achieving Each HK 2010 Objective
7.1. Reduce to 65 per 100,000 the rate of nonfatal head injuries.  (See Revision)

7.1R. (REVISION) Reduce to 59 per 100,000 the rate of nonfatal head injuries that are hospitalized.

Reason for Revision: In 2000 case reporting for the hospital discharge data pertaining to injury was significantly lower than for 2001-2003, so the 2001 rate was used as the baseline, instead of the 2000 rate.

Data Source: Kentucky Hospital Inpatient Discharge Database (UB92)

Baseline: 73.9 per 100,000 for 2001 as measured by hospitalization, age adjusted to year 2000

HK 2010 Target: 59 per 100,000

Mid-Decade Status: 70.6 per 100,000 in 2003

Strategies to Achieve Objective:

- Enact state laws that require all motorcyclists and bicyclists to wear helmets
- Enact state laws that require drivers and automobile occupants to be restrained by safety belts or child safety restraints
- Encourage dissemination and implementation of the National Action Plan for Playground Safety
- Promote use of protective gear in sports events

7.2. Reduce to 4 per 100,000 the rate of nonfatal spinal cord injuries.

Data Source: Kentucky Hospital Inpatient Discharge Database (UB92)
Baseline: 6.4 per 100,000 for 2001 as measured by hospitalization, age-adjusted to year 2000. Case reporting for the hospital discharge data pertaining to injury in 2000 was significantly lower than for 2001-2003, so the 2001 rate was used as the baseline, instead of the 2000 rate.

HK 2010 Target: 4 per 100,000

Mid-Decade Status: 4.3 per 100,000 in 2003

![Chart showing age-adjusted nonfatal spinal cord injury rates, Kentucky, 2001-2003](source: Hospital Inpatient Discharge Database)

Strategies to Achieve Objective:

- Prevention efforts should target motor vehicle crashes, falls, firearm injury, diving, and water safety.

7.3. Reduce firearm-related deaths to less than 12 per 100,000. (See Revision)

7.3R. (REVISION) Reduce firearm-related deaths to less than 11 per 100,000.

Reason for Revision: The baseline was not correct for year 2000. The firearm-related death rate was 13.1 per 100,000 not 14 per 100,000.

Data Source: Kentucky Vital Statistics Surveillance System - Death Certificates, Kentucky Violent Death Reporting System (KVDRS)

Baseline: 13 per 100,000, age-adjusted to year 2000
### Select Populations

<table>
<thead>
<tr>
<th></th>
<th>2000-2003 Average</th>
</tr>
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<tbody>
<tr>
<td>Homicides</td>
<td>3.2/100,000</td>
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<tr>
<td>Suicides</td>
<td>9.0/100,000</td>
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<td>Unintentional</td>
<td>0.9/100,000</td>
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<td>African American</td>
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</tr>
<tr>
<td>White</td>
<td>13.0/100,000</td>
</tr>
</tbody>
</table>

**HK 2010 Target:** 11 per 100,000

**Mid-Decade Status:** 13.7 per 100,000 in 2003

![Age-adjusted Rate per 100,000](chart.png)

**Figure 7.3** Age-adjusted Firearm Related Death Rates, Kentucky, 2000-2003 (Source: Vital Statistics Surveillance System, KVDRS)

### Strategies to Achieve Objective:

- Enact laws that require the use of trigger locks
- Promote gun and ammunition safe storage
- Make parents or caregivers responsible for children’s use of firearms to harm others

### 7.4.  (Developmental) Extend multi-agency, multidisciplinary case review of all unexpected child fatalities (Coroners’ cases) among children less than 18 years to all 120 counties.

**Data Sources:** Vital Statistics Surveillance System - Death Certificates, Coroner’s Report forms, Annual State Child Fatality Review System reports.

**Baseline:** Data not available

**HK 2010 Target:** Case review extended to all 120 counties
Mid-Decade Status: Child fatality review is being conducted in about half (50 percent) of Kentucky counties. Additional funding is needed to extend multi-agency, multidisciplinary review to all 120 counties.

Strategies to Achieve Objective:

- Explain/clarify the goals of the Child Fatality Review teams to local agencies and individuals (The goals are to identify the cause of death and determine whether or not the death was preventable.)
- Research availability of federal, state, and local dollars to assist in expanding multidisciplinary review to all 120 counties

7.5. Reduce deaths caused by poisoning to no more than 3.0 per 100,000. (See Revision)

7.5R. (REVISION) Reduce deaths caused by poisoning to no more than 6.0 per 100,000.

Reason for Revision: The baseline was not correct for year 2000. The total poisoning death rate was 7.1 per 100,000 not 3.6 per 100,000.

Data Source: Kentucky Vital Statistics Surveillance System - Death Certificates

Baseline: 7.1 per 100,000, age-adjusted to year 2000

HK 2010 Target: 6.0 per 100,000

Mid-Decade Status: 14 per 100,000

Figure 7.4 Age-adjusted Poisoning Death Rates, Kentucky, 2000-2003 (Source: Vital Statistics Surveillance System)
Strategies to Achieve Objective:

- The increase in poisoning deaths is largely attributable to unintentional drug overdose, primarily prescription drugs. More targeted interventions are necessary to reduce illicit prescription drug use.
- Encourage prominent placement of the Poison Control Center number in all homes
- Install carbon monoxide alarms in all residential buildings
- Educate parents and caregivers to store medications and toxic chemicals out of the reach of children

7.6. Reduce deaths caused by suffocation to 2 per 100,000. (See Revision)

7.6R. (REVISION) Reduce deaths caused by suffocation to 4.4 per 100,000.

Reason for Revision: The baseline was not correct for year 2000. The total suffocation death rate was 5.8 per 100,000 not 3 per 100,000.

Data Source: Kentucky Vital Statistics Surveillance System - Death Certificates, age adjusted

Baseline: 5.8 per 100,000, in 2000

HK 2010 Target: 4.4 per 100,000

Mid-Decade Status: 4.9 per 100,000 in 2003

![Figure 7.5 Age-adjusted Suffocation Death Rates, Kentucky, 2000-2003 (Source: Vital Statistics Surveillance System)]

7.7. (Developmental) Extend the collection of Uniform Hospital data to include emergency departments.
**Data Source:** Uniform Emergency Department (ED) Visits (UB-92ED)

**Baseline:** Data not available

**HK 2010 Target:** Complete coverage to include emergency departments

**Mid-Decade Status:** Preliminary 2004 data are available from a pilot test.

**Strategies to Achieve Objective:**
- Increased funding is needed to obtain statewide population based data
- Introduce statutory change to require reporting of ED data

7.8. **Reduce deaths caused by unintentional injuries to no more than 31 per 100,000 people. (See Revision)**

7.8R. **(REVISION) Reduce deaths caused by unintentional injuries to no more than 35 per 100,000 people.**

**Reason for Revision:** The baseline was not correct for year 2000. The unintentional injury death rate was 40.9 per 100,000 not 36 per 100,000.

**Data Source:** Kentucky Vital Statistics Surveillance System - Death Certificates

**Baseline:** 40.9 per 100,000, age-adjusted to year 2000

**HK 2010 Target:** 35 per 100,000

**Mid-Decade Status:** 49.2 per 100,000 in 2004

![Figure 7.6 Age-adjusted Unintentional Injury Death Rates, Kentucky, 2000-2003](Source: Vital Statistics Surveillance System)
Strategies to Achieve Objective:

- The increase in unintentional injury death rates is driven primarily by the increase in poisonings in persons 15 to 64, and motor vehicle collisions in persons aged 25 to 84. Targeted interventions are needed to reduce both motor vehicle collision deaths and poisonings in these age groups.
- Raise awareness that injuries are not “accidents”, and that they can be prevented by behavioral and environmental changes
- Support the development and implementation of injury prevention programs that target populations most affected by specific types of injuries
- Emphasize the substantial risk posed by alcohol for all unintentional injuries
- Support surveillance efforts to characterize those at risk and develop targeted prevention programs

7.9. (Developmental) Reduce nonfatal unintentional injuries so that hospitalizations for this condition are no more than 641 per 100,000. (See Revision)

7.9R. (REVISION) Reduce nonfatal unintentional injuries so that hospitalizations for this condition are no more than 317 per 100,000.

Reason for Revision: Data are now available for this objective and the 2010 target was not accurate. The new objective should be to reduce nonfatal unintentional injury hospitalizations to no more than 317 per 100,000 residents.

Case reporting for the hospital discharge data pertaining to injury in 2000 was significantly lower than for 2001-2003, so the 2001 rate was used as the baseline, instead of the 2000 rate.

Data Source: Kentucky Hospital Inpatient Discharge Database (UB92)

Baseline: 374.7 per 100,000 residents for 2001, age-adjusted to year 2000

HK 2010 Target: 317 per 100,000

Mid-Decade Status: 387.7 per 100,000 in 2003
Strategies to Achieve Objective:

- Same strategies as for Objective 7.8

7.10. Reduce deaths caused by motor vehicle crashes to no more than 12 per 100,000 and 1 per 100 million vehicle miles traveled.

**Data Source:** Kentucky Vital Statistics Surveillance System - Death Certificates

**Baseline:** 16.5 per 100,000 residents, age-adjusted to year 2000, 1.6 deaths per 100 million vehicle miles traveled

**HK 2010 Target:** 12 per 100,000 residents, 1.0 deaths per 100 million vehicle miles traveled

**Mid-Decade Status:** 18.8 per 100,000, 1.9 deaths per 100 million vehicle miles traveled in 2003
Strategies to Achieve Objective:

- Promote passage of primary enforcement safety belt laws that include trucks and sport utility vehicles
- Promote passage of universal helmet laws
- Increase support to programs that promote the use of safety belts and child restraints
- Promote extension of Graduated Driver Licensing Program restrictions for the provisional driver stage from six months to one year
- Establish data linkages between police and hospital records and other non-fatal injury records to enhance early detection of shifts in trends and better understand the medical costs associated with motor vehicle crashes

7.11. Reduce pedestrian deaths on public roads to no more than 1 per 100,000.

Data Source: Kentucky Vital Statistics Surveillance System - Death Certificates

Baseline: 1.2 per 100,000 in 2000, age-adjusted

HK 2010 Target: 1.0 per 100,000

Mid-Decade Status: 1.3 per 100,000 in 2003
Figure 7.9 Age-adjusted Motor Vehicle Pedestrian Death Rates, Kentucky, 2000-2003 (Source: Vital Statistics Surveillance System)

Strategies to Achieve Objective:

- Raise awareness of the need for safe pedestrian walkways
- Target senior citizen areas for special walkways

7.12. Reduce nonfatal injuries caused by motor vehicles crashes to 1,000 per 100,000. (See Revision).

7.12R. (REVISION) Reduce hospitalizations for nonfatal injuries caused by motor vehicles crashes to 72 per 100,000.

Reason for Revision: Case reporting for the hospital discharge data pertaining to injury in 2000 was significantly lower than for 2001-2003, so the 2001 rate was used as the baseline, instead of the 2000 rate.

Data Source: Kentucky Hospital Inpatient Discharge Database (UB-92)

Baseline: 85 per 100,000 for 2001, age-adjusted to year 2000

HK 2010 Target: 72 per 100,000

Mid-Decade Status: 85.4 per 100,000 in 2003
Strategies to Achieve Objective:

Same as for Objective 7.10

7.13. Increase use of safety belts to 93 percent of motor vehicle occupants. (See Revision).

7.13R. (REVISION) Increase use of safety belts to 69 percent of motor vehicle occupants.

Reason for Revision: The baseline was not correct for year 1997. Safety belt usage was 54 percent not 69 percent. Updated baseline to use in 2000: 60 percent.

Data Sources: Kentucky Transportation Center

Baseline: 60 percent in 2000

HK 2010 Target: 69 percent

Mid-Decade Status: 66 percent of all front seat drivers and passengers
Strategies to Achieve Objective:

- Develop, implement, and evaluate intervention programs for promoting highway safety education

7.14. Increase use of child restraints to 93 percent of motor vehicle occupants ages 4 years and younger.

7.14R. Increase use of child restraints to 96 percent of motor vehicle occupants ages 4 years and younger

Reason for Revision: The baseline was not correct for year 1997. Child restraint usage was 82 percent not 61 percent. A new baseline will be set for 2000.

Data Sources: Kentucky Transportation Center

Baseline: 87 percent in 2000

HK 2010 Target: 96 percent

Mid-Decade Status: 95 percent in 2003
Strategies to Achieve Objective:

- Develop, implement, and evaluate intervention programs for promoting correct use of child safety seats
- Encourage enforcement of child safety seat laws by promoting alternative sentencing programs
- Encourage local health departments and other agencies to train personnel about the correct procedures for child occupant safety
- Increase counseling efforts by health care providers

7.15. Reduce fire-related deaths to no more than 1.2 per 100,000. (See Revision)

7.15R. (REVISION) Reduce fire-related deaths to no more than 1.9 per 100,000.

Reason for Revision: The baseline was not correct for year 2000. The fire-related death rate was 2.2 per 100,000 not 1.4 per 100,000.

Data Source: Kentucky Vital Statistics Surveillance System - Death Certificates

Baseline: 2.2 per 100,000 in 2000, age-adjusted

HK 2010 Target: 1.2 per 100,000

Mid-Decade Status: 1.8 per 100,000 in 2003
Strategies to Achieve Objective:

- Promote revision of state and local ordinances and building codes to require smoke alarms in new and existing housing, including manufactured housing
- Support programs that provide public education that includes positioning of smoke alarms in residences, ‘stop, drop, and roll’ when clothing ignites, the role of alcohol use in residential fires, and the dangers of playing with matches and lighters
- Promote development and practice of exit drills in the home
- Develop and implement fire prevention and education programs that target the elderly
- Encourage and support fire departments and emergency response teams to be proactive in preventing residential fires

7.16. Increase to 100 percent the presence of functional smoke alarms to at least one on each habitable floor of all inhabited residential dwellings, including the basement. (DELETED)

Reason for Deletion: No ongoing data source. Behavioral Risk Factor Surveillance System data is not available for 2000-2004. This survey question is no longer asked.

7.17. Reduce deaths from falls to no more than 5 per 100,000. (See Revision)

7.17R. (REVISION) Reduce deaths from falls to no more than 3.7 per 100,000.
**Reason for Revision:** The baseline was not correct for year 2000. The fall death rate was 4.3 per 100,000 not 6 per 100,000. The objective should be to reduce deaths from falls to no more than 3.3 per 100,000.

**Data Source:** Kentucky Vital Statistics Surveillance System - Death Certificates

**Baseline:** 4.3 per 100,000 in year 2000, age-adjusted

**HK 2010 Target:** 3.3 per 100,000

**Mid-Decade Status:** 3.7 per 100,000 in year 2003

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**Figure 7.14** Age-adjusted Death Rates Due to Falls, Kentucky, 2000-2003 (Source: Vital Statistics Surveillance System)

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**Strategies to Achieve Objective:**

- Educate persons ages 65 and older concerning prevention of falls in the home and in public places
- Perform environmental evaluations to remove hazards causing falls

**7.17. Reduce unintentional drownings to no more than 1.5 per 100,000.** (See Revisions).

**7.17R. Reduce unintentional drownings to no more than 1.1 per 100,000.**

**Reason for Revision:** The baseline was not correct for year 2000. The unintentional drowning rate was 1.3 per 100,000 not 1.8 per 100,000. The objective should be to reduce drownings to no more than 1.1 per 100,000.

**Data Source:** Kentucky Vital Statistics Surveillance System - Death Certificates
Baseline: 1.3 per 100,000 in year 2000, age-adjusted

HK 2010 Target: 0.5 per 100,000

Mid-Decade Status: 0.9 per 100,000 in year 2003

Figure 7.15 Age-adjusted Death Rates Due to Unintentional Drowning, Kentucky, 2000-2003 (Source: Vital Statistics Surveillance System)

Strategies to Achieve Objective:

- Educate the public about hazards of open bodies of water and about the dangers associated with drinking alcohol while engaged in aquatic activities
- Promote swimming and water safety classes for children and teenagers
- Promote cardiopulmonary resuscitation (CPR) training for adolescents and parents
- Encourage enforcement of laws prohibiting the operation of boats and personal watercraft while under the influence of drugs or alcohol
- Promote licensure and standard training for boat and personal watercraft operators

7.18. Reduce homicides to less than 5 per 100,000 people. (See Revision)

7.19R. (REVISION) Reduce homicides to less than 4.2 per 100,000 people.

Reason for Revision: The baseline was not correct for year 2000. The homicide rate was 4.9 per 100,000 not 6 per 100,000. The objective should be to reduce homicides to less than 4.2 per 100,000 people.

Data Sources: Kentucky Vital Statistics Surveillance System - Death Certificates
Baseline: 4.9 per 100,000, age adjusted to year 2000

Select Populations 2000
Black males 29.9
White 3.7
Infants aged <1 13.2
Children aged 1-4 1.9
Children 10-14 1.4
Adolescents aged 15-19 4.2

HK 2010 Target: 4.2 per 100,000

Mid-Decade Status: 4.6 per 100,000 in 2003, age-adjusted

![Graph showing age-adjusted homicide rates from 2000 to 2005.](image)

Figure 7.16 Age-adjusted Homicide Rates, Kentucky, 2000-2003 (Source: Kentucky Vital Statistics Surveillance System)

Strategies to Achieve Objective:

- Pass laws that reduce inappropriate access to firearms
- Support programs that promote firearm safety
- Develop surveillance system to provide accurate data about firearm injuries and deaths

7.20. (Developmental) Reduce to less than 4 per 1,000 children the incidence of maltreatment of children younger than age 18.
(See Revision)

7.20R. (REVISION) Reduce to less than 15.9 per 1,000 children the incidence of maltreatment of children younger than age 18.
Reason for Revision: The data source for this objective is the Children's Bureau, Administration on Children, Youth and Families, U.S. Department of Health and Human Services. The objective should be to reduce to less than 15.9 per 1,000 children the incidence of maltreatment of children younger than age 18.

Data Source: *Child Maltreatment* Report

Baseline: 18.7 per 100,000 children in 2000

HK 2010 Target: 15.9 per 100,000

Mid-Decade Status: 18.3 per 100,000 in 2003

Strategies to Achieve Objective:

- Support programs that accumulate information about the incidences and causes of maltreatment; a need exists for Kentucky specific incidence data to describe the magnitude of the problem
- Evaluate existing interventions and the impact of those interventions
- Support programs that provide protection services to maltreated children
- Develop and support programs that are designed to prevent child maltreatment

**7.21.** (Developmental) **Reduce to less than 7 per 1,000 the incidence of maltreatment of persons aged 60 and older.**

Potential Data Source: Department for Community Based Services

Baseline: Data not available
HK 2010 Target:  Less than 7 per 1,000

Mid-Decade Status: Preliminary data are now becoming available for analysis.

Strategies to Achieve Objective:

- Support programs that collect information about the incidences and causes of maltreatment; a need exists for Kentucky specific incidence data to describe the magnitude of the problem
- Evaluate existing interventions and the impact of those interventions
- Support programs that provide protection services to maltreated elders
- Develop and support programs that are designed to prevent child maltreatment

7.22. (Developmental) **Reduce physical abuse by current or former intimate partners to less than 23 per 10,000.**

Potential Data Sources: Department for Community Based Services

Baseline: Data not available

HK 2010 Target: 23 per 10,000

Mid-Decade Status: Preliminary data are now becoming available for analysis.

Strategies to Achieve Objective:

- Support programs that collect information about the incidence and causes of intimate partner violence (IPV), including Kentucky-specific incidence data
- Evaluate existing interventions and their impact
- Support programs that provide protection services to IPV victims
- Develop and support programs that are designed to prevent IPV

7.23. **Reduce the rate of forced sexual intercourse or attempted forced sexual intercourse of persons aged 18 and older to less than 6 per 10,000 persons. (See Revision)**

7.23R. (REVISION) **Reduce the rate of forced sexual intercourse or attempted forced sexual intercourse of persons aged 18 and older to less than 9.4 per 10,000 persons.**
Reason for Revision: This revision reflects the use of the Kentucky State Police Uniform Crime Report data.

Data Source: Uniform Crime Reports - adult forcible rape reports

Baseline: 11 per 100,000 in 1995

HK 2010 Target: 9.4 per 100,000

Mid-Decade Status: 11.9 per 100,000 in 2004

Strategies to Achieve Objective:

- Increase support to the rape crisis centers that provide services to persons who have experienced rape or other sexual assault
- Develop population-based educational programs that teach that rape is never excusable
- Promote college-based programs that counsel and educate about date rape

7.24. Reduce sexual assault other than rape to less than 0.3 per 1,000 people. (See Revision)

7.24R. (REVISION) Reduce sexual assault other than rape to less than 0.43 per 1,000 people.

This revision reflects the use of the Kentucky State Police Uniform Crime Report data.
Data Source: Uniform Crime Reports- Sex Offenses (except forcible rape and prostitution)

Baseline: 0.5 per 1,000 people in 1995

HK 2010 Target: 0.43 per 1,000

Mid-Decade Status: 0.52 per 1,000 in 2004

Figure 7.19 Sexual Assault Rate Other Than Rape, Kentucky, 2000-2004 (Source: Uniform Crime Reports)

Strategies to Achieve Objective:

Same as for Objective 7.23

References

- Kentucky State Police, Crime in Kentucky- (2000-2004), Frankfort, Kentucky
- Kentucky Transportation Center, 2003 Safety Belt Usage Survey in Kentucky, University of Kentucky, Lexington, Kentucky

Contributors

- Terry Bunn, Ph.D. Kentucky Injury Prevention and Research Center (KIPRC), University of Kentucky, Chapter Coordinator
- Michael Singleton, Surveillance Coordinator, Crash Outcome Data Evaluation System (CODES) Program and Traumatic Brain Injury (TBI) Program, Department for Public Health
- Susan Pollack, MD, Pediatrician and Program Manager, KIPRC, University of Kentucky
Appendix

1. All rates are for singular calendar year

2. All fatality indicators are for KY residents who died in KY

3. All nonfatal hospitalization indicators are for KY residents and use the case definition for injury published in "Consensus Recommendations for Using Hospital Discharge Data in Injury Surveillance, by the State and Territorial Injury Prevention Directors Association (STIPDA) in 2003

4. Indicator definitions:

a. All fatal poisonings
   1. Underlying cause of death codes- X40-X49, X60-X69, X85-X90, Y10-Y19, Y35.2

b. All fatal suffocation
   2. Underlying cause of death codes- W75-W84, X70, X91, Y20

c. All fatal motor vehicle traffic crashes:
   1. Underlying cause of death codes V30-V79 (.4-.9), V81.1, V82.1, V83-V86 (.0-.3), V20-V28 (.3-.9), V29 (.4-.9), V12-14 (.3-.9), V19 (.4-.6), V02-V04 (.1,.9), V09.2, V80 (.3-.5), V87 (.0-.8), V89.2

d. All pedestrian deaths:
   1. Underlying cause of death codes V02-V04 (.1,.9), V09.2

e. All fire-related deaths:
   1. Underlying cause of death codes X00-X09, X76, X97, Y36.3, Y26

f. All fall deaths:
   1. Underlying cause of death codes W00-W19, X80, Y01, Y30
g. Unintentional drowning deaths:
   1. Underlying cause of death codes W65-W74

h. Unintentional injury deaths:
   1. Underlying cause of death codes V01-X59, Y85-Y86

i. Nonfatal TBI hospitalizations:
   1. Diagnosis codes of 800, 801, 803, 804, 850-853, 854.0, 854.1, or 959.01

j. Nonfatal SCI hospitalizations
   1. Any of first three diagnosis codes contains 806 or 952

k. Nonfatal motor vehicle traffic crash hospitalizations:
   1. E-code1 or E-code2 in the range E810-E819

l. Nonfatal unintentional injury hospitalizations:
   1. E-code1 or E-code2 in the range E800-E869 or E880-E929
### 7. Injury/Violence Prevention – Summary Tables

#### Summary of Objectives for Injury/Violence Prevention

<table>
<thead>
<tr>
<th>Summary of Objectives for Injury/Violence Prevention</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1R. Reduce to 59 per 100,000 the rate of nonfatal head injuries that are hospitalized.</td>
<td>73.9/100,000 (2001)</td>
<td>≤59/100,000</td>
<td>70.6/100,000 (2003)</td>
<td>No</td>
<td>HOSP</td>
</tr>
<tr>
<td>7.2R. Reduce to 4 per 100,000 the rate of nonfatal spinal cord injuries.</td>
<td>6.4/100,000 (2001)</td>
<td>≤4/100,000</td>
<td>4.3/100,000 (2003)</td>
<td>Yes</td>
<td>HOSP</td>
</tr>
<tr>
<td>7.3R. Reduce firearm-related deaths to less than 11 per 100,000.</td>
<td>13/100,000 (2000)</td>
<td>&lt;11/100,000</td>
<td>13.7/100,000 (2003)</td>
<td>No</td>
<td>Vital Statistics, KVDRS</td>
</tr>
<tr>
<td>7.4. (Developmental) Extend multi-agency, multidisciplinary case review of all unexpected child fatalities (Coroner’s cases) among children less than 18 years to all 120 counties.</td>
<td>0 counties reviewed</td>
<td>120 counties</td>
<td>Approx. 60 counties</td>
<td>Yes</td>
<td>Vital Statistics and Coroner Report Forms</td>
</tr>
<tr>
<td>7.5R. Reduce deaths caused by poisoning to no more than 6.0 per 100,000.</td>
<td>7.1/100,000 (2000)</td>
<td>≤6.0/100,000</td>
<td>14/100,000 (2003)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.6R. Reduce deaths caused by suffocation to 4.4 per 100,000.</td>
<td>5.8/100,000 (2000)</td>
<td>≤4.4/100,000</td>
<td>4.9/100,000 (2003)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.7 (Developmental) Extend the collection of Uniform Hospital data to include emergency departments.</td>
<td>No coverage</td>
<td>Complete coverage</td>
<td></td>
<td>Pilot testing</td>
<td>Yes</td>
</tr>
<tr>
<td>7.8R. Reduce deaths caused by unintentional injuries to no more than 35 per 100,000 people.</td>
<td>40.9/100,000 (2000)</td>
<td>≤35/100,000</td>
<td>49.2/100,000 (2003)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.9R. Reduce nonfatal unintentional injuries so that hospitalizations for this condition are no more than 317 per 100,000.</td>
<td>374.7/100,000 (2001)</td>
<td>≤317/100,000</td>
<td>387.7/100,000 (2003)</td>
<td>Yes</td>
<td>HOSP</td>
</tr>
<tr>
<td>7.10. Reduce deaths caused by motor vehicle crashes to no more than 12 per 100,000 and 1 per 100 million vehicle miles.</td>
<td>16.5/100,000 (2000)</td>
<td>≤12/100,000</td>
<td>18.8/100,000 (2003)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.11. Reduce pedestrian deaths on public roads to no more than 1 per 100,000.</td>
<td>1.2/100,000 (2000)</td>
<td>≤1/100,000</td>
<td>1.3/100,000 (2003)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.12. Reduce hospitalizations for nonfatal injuries caused by motor vehicle crashes to 72 per 100,000.</td>
<td>85/100,000 (2001)</td>
<td>≤72/100,000</td>
<td>85.4/100,000 (2003)</td>
<td>No</td>
<td>HOSP</td>
</tr>
<tr>
<td>7.13R. Increase use of safety belts to 69 percent of motor vehicle occupants.</td>
<td>60% (2000)</td>
<td>≥69%</td>
<td>66% (2003)</td>
<td>Yes</td>
<td>KY Transportation Center</td>
</tr>
<tr>
<td>Summary of Objectives for Injury/Violence Prevention</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>----------------------------------------------------</td>
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<td>-------------</td>
</tr>
<tr>
<td>7.14R. Increase use of child restraints to 96 percent of motor vehicle occupants ages 4 years and younger.</td>
<td>87% (2000)</td>
<td>≥96%</td>
<td>95% (2003)</td>
<td>Yes</td>
<td>KY Transportation Center</td>
</tr>
<tr>
<td>7.15R. Reduce fire-related deaths to no more than 1.2 per 100,000.</td>
<td>2.2/100,000 (2000)</td>
<td>≤1.2/100,000</td>
<td>1.8/100,000 (2003)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.16. (DELETED).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.17R. Reduce deaths from falls to no more than 3.7 per 100,000.</td>
<td>4.3/100,000 (2000)</td>
<td>≤3.3/100,000</td>
<td>3.7/100,000 (2003)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.18R. Reduce unintentional drownings to no more than 1.1 per 100,000.</td>
<td>1.3/100,000 (2000)</td>
<td>≤.5/100,000</td>
<td>0.9/100,000 (2003)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.19R. Reduce homicides to less than 4.2 per 100,000 people.</td>
<td>4.9/100,000 (2000)</td>
<td>&lt;4.2/100,000</td>
<td>4.6/100,000 (2003)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>7.20R. Reduce to less than 15.9 per 1,000 children the incidence of maltreatment of children younger than age 18.</td>
<td>18.7/100,000 (2000)</td>
<td>&lt;15.9/100,000</td>
<td>18.3/100,000 (2003)</td>
<td>Yes</td>
<td>Child Maltreatment Report</td>
</tr>
<tr>
<td>7.21. (Developmental) Reduce to less than 7 per 1,000 the incidence of maltreatment of persons aged 60 and older.</td>
<td>Data not available</td>
<td>&lt;7/1,000</td>
<td>Preliminary data now available.</td>
<td>TBD</td>
<td>Dept. for Community Based Services</td>
</tr>
<tr>
<td>7.22. (Developmental) Reduce physical abuse by current or former intimate partners to less than 23 per 10,000.</td>
<td>Data not available</td>
<td>&lt;23/10,000</td>
<td>Preliminary data now available.</td>
<td>TBD</td>
<td>Dept. for Community Based Services</td>
</tr>
<tr>
<td>7.23R. Reduce the rate of forced sexual intercourse or attempted forced sexual intercourse of persons aged 18 and older to less than 9.4 per 10,000 persons.</td>
<td>11/10,000 (1995)</td>
<td>&lt;9.4/10,000</td>
<td>11.9/10,000 (2004)</td>
<td>No</td>
<td>Uniform Crime Reports</td>
</tr>
<tr>
<td>7.24R. Reduce sexual assault other than rape to less than 0.43 per 1,000 people.</td>
<td>0.5/1,000 (1995)</td>
<td>&lt;0.43/1,000</td>
<td>0.52/1,000 (2004)</td>
<td>No</td>
<td>Uniform Crime Reports</td>
</tr>
</tbody>
</table>

R = Revised objective
TBD = To be determined. No reliable data currently exist.
8. Occupational Safety and Health

Goal

Promote worker health and safety through prevention and early intervention.

Overview

Currently, Kentucky’s occupational fatality rate is 7.0 deaths per 100,000 workers (Kentucky Fatality Assessment and Control Evaluation (FACE) program data, 2004), 72.5 percent above the national rate of 4 per 100,000 workers. The nonfatal worker injury rate is also greater in Kentucky at 6.4 injuries and illnesses per 100 workers compared to a total worker injury rate of 5.0 injuries and illnesses per 100 workers nationwide (Bureau of Labor Statistics [BLS], 2004). FACE data indicate that a total of 2,248 years of potential life were lost (YPLL) in 2003 due to work-related injuries. Lost future productivity attributable to these injuries is an estimated $65.2 million dollars.

From 1994 through 2004, 1,445 Kentucky workers were killed on the job, averaging 131 per year (Kentucky FACE data). Kentucky’s occupational fatality rates are in the range of twice as high as national rates in agriculture, forestry, fishing, transportation, and mining.

Summary of Progress

While interventions have been developed for the workplace, targeted prevention interventions are needed in the transportation and construction sectors. Kentucky’s construction worker fatal injury rate has not improved since 1998.

Strides have been made in the agriculture, forestry, and fishing industry sectors for the prevention of occupational injuries. Tractor rollover protection structures (ROPS) continue to be promoted by disseminating prevention materials, FACE tractor report text analysis results, and a CD developed by the Community Partners for Healthy Farming project. These materials focus on reducing tractor fatalities by retrofitting tractors with a ROPS and encouraging safe tractor operation through public service announcements, exercises, simulations, motor vehicle crash prevention materials, and other similar materials. This information is designed to be used by local health educators and injury prevention coordinators.

Statewide nonfatal occupational injury and illness surveillance will begin in 2005 for a number of injuries and illnesses, including pneumoconiosis hospitalizations and mortality, occupational poisonings, blood lead levels, amputations, work-related burns, malignant mesothelioma incidence, and carpal tunnel syndrome, among others. This program will bring a consistent approach to the analysis of existing data sets through
the use of uniform methods, results, and interpretation of findings within Kentucky and among states.

**Progress toward Achieving Each HK 2010 Objective**

8.1. **Reduce deaths from work-related injuries to no more than 5.5 per 100,000 full time workers. (See Revision)**

8.1R. (REVISION) **Reduce deaths from work-related injuries to no more than 3.6 per 100,000 full-time workers.**

**Reason for Revision:** The baseline was not correct for 1998. The occupational fatality rate for 1998 was 6.0 per 100,000 not 11 per 100,000.

**Data Source:** Fatality Assessment and Control Evaluation (FACE) data, Kentucky Injury Prevention and Research Center

**Baseline:** 6 per 100,000 in 1998

**HK 2010 Target:** 3.6 per 100,000

**Mid-Decade Status:** 6.8 per 100,000 in 2004

![Graph showing Death Rates from Occupational Injuries, Kentucky, 1998-2004](Source: FACE)

**Strategies to Achieve Objective:**

- Support programs to accomplish statewide injury surveillance in order to develop the data sets that identify occupational injury risk factors
• Quantify and prioritize risk factors through analytic injury research projects
• Identify existing strategies and develop new strategies to prevent occupational injuries (prevention and control)
• Implement the most effective injury control measures by communication, dissemination, and technology transfer
• Monitor the results of intervention efforts (evaluation)

8.2. Reduce deaths from work-related injuries among agriculture and forestry occupations to no more than 40 per 100,000 full time agricultural, forestry, and fishing workers.

Data Source: FACE data, Kentucky Injury Prevention and Research Center

Baseline: 79 per 100,000 in 1998

HK 2010 Target: 40 per 100,000

Mid-Decade Status: 46 per 100,000 in 2004

![Fatality Rates Graph](Figure 8.2)

**Figure 8.2** Agriculture, Forestry, and Fishing Industry Worker Fatality Rates, Kentucky, 1998, 2000-2004 (Source: FACE)

**Strategies to Achieve Objective:**

• Support programs to accomplish statewide injury surveillance in order to develop the data sets that can identify occupational injury risk factors
• Quantify and prioritize risk factors through analytic injury research projects
- Identify existing strategies and develop new strategies to prevent occupational injuries (prevention and control)
- Implement the most effective injury control measures by communication, dissemination, and translation
- Monitor the results of intervention efforts (evaluation)

8.3. **Reduce deaths from work-related injuries among construction occupations to no more than 12.5 per 100,000 fulltime construction workers.**

**Data Source:** FACE data, Kentucky Injury Prevention and Research Center

**Baseline:** 25 per 100,000 in 1998

**HK 2010 Target:** 12.5 per 100,000

**Mid-Decade Status:** 24 per 100,000 in 2004

![Figure 8.3 Construction Industry Worker Fatality Rates, Kentucky, 1998, 2000-2004](Source: FACE)

**Strategies to Achieve Objective:**

- Same as for Objective 8.2

8.4. **(Developmental) Reduce the number of work-related disorders by 10 percent. (See Revision)**

8.4R. **(REVISION) Reduce the number of pneumoconiosis deaths by 10 percent.**
**Reason for Revision:** The original objective was too broad. Since Kentucky has the 2nd highest pneumoconiosis incidence rate in the nation, a reduction in pneumoconiosis deaths by 10 percent, a current national Healthy People 2010 objective, is an appropriate Kentucky objective.

**Data Sources:** Kentucky Vital Statistics Surveillance System, death certificate files will be utilized.

**Baseline:** Not yet determined

**HK2010 Target:** 10 percent improvement over baseline

**Mid-Decade Status:** Not yet determined

**Strategies to Achieve Objective:**

- This data will soon be collected by the Kentucky Injury Prevention and Research Center and the Kentucky Department for Public Health. Appropriate strategies will be developed following analysis of the data.

**References**


**Contributors**

- Terry Bunn, PhD, Manager, Occupational Injury and Illness Prevention Program Kentucky Injury Prevention and Research Center, University of Kentucky, Chapter Coordinator
- Deborah Wingate, Director, Information and Research, Kentucky Office of Workers’ Claims
- Julia Costich, PhD, Director, Kentucky Injury Prevention and Research Center, University of Kentucky
### 8. Occupational Safety and Health – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Occupational Safety and Health</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.1R. Reduce deaths from work-related injuries to no more than 3.6 per 100,000 full time workers.</td>
<td>6/100,000 (1998)</td>
<td>≤3.6/100,000</td>
<td>6.8 /100,000 (2004)</td>
<td>No</td>
<td>FACE</td>
</tr>
<tr>
<td>8.2. Reduce deaths from work-related injuries among agriculture and forestry occupations to no more than 40 per 100,000 full time agriculture, forestry, and fishing workers.</td>
<td>79/100,000 (1998)</td>
<td>≤40/100,000</td>
<td>46/100,000 (2004)</td>
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<td>FACE</td>
</tr>
<tr>
<td>8.3. Reduce deaths from work-related injuries among construction occupations to no more than 12.5 per 100,000 full-time construction workers.</td>
<td>25/100,000 (1998)</td>
<td>≤12.5/100,000</td>
<td>24/100,000 (2004)</td>
<td>Yes</td>
<td>FACE</td>
</tr>
<tr>
<td>8.4R. Reduce the number of pneumoconiosis deaths by 10 percent.</td>
<td>Data not yet available</td>
<td>Reduce by 10%</td>
<td>Data not yet available</td>
<td>TBD</td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective  
TBD = To be determined. No reliable data currently exist.
9. Oral Health

Goal

To improve the health and quality of life for individuals and communities by preventing and controlling oral disease and injuries, and to improve access to oral health care for all Kentuckians.

Overview

Oral disease is a major health problem for Kentuckians. Much of this problem can be prevented through primary prevention efforts, including community water fluoridation, the application of dental sealants and fluoride varnish, oral cancer screenings and routine dental care as well as oral health education and health promotion.

In 1987, the Office of Oral Health conducted a statewide oral health survey (Kentucky Oral Health Survey - KOHS) consisting of an interview component and a clinical screening component. The findings from this survey were alarming.

Dental caries were a significant problem, with 26 percent of adult Kentuckians 18 to 64 years of age having untreated decay, compared to 6 percent on a national survey conducted by the National Institute of Dental Research in the same year. Additionally, KOHS found that 34 percent of Kentuckians had not visited a dentist within the past 12 months. This number became more disturbing when, nine years later, the 1996 Behavioral Risk Factor Surveillance System (BRFSS) reported that the measure had increased to 38 percent.

Children fared no better than adults with respect to oral health outcomes. In 1987, 30 percent of children aged 0-4 had caries. In the 5-9 age range, 58 percent of children had a decayed filled surface in a primary tooth (dfs) and 34 percent had a decayed filled surface in a permanent tooth (DFS). Twenty-eight percent of children aged 0-4 had untreated decay while this number rose to 38 percent (dfs) and 27 percent (dfs) for the 5-9 aged children.

Kentucky adolescents proved to have even worse oral health. Eighty-four percent of 14-17 year olds had one or more caries (filled or unfilled) while 67 percent had untreated cavities in primary and permanent teeth.

This information was a catalyst for additional surveys specific to three populations: children, adults, and elders, to be implemented in the current decade. Details about these three surveys are provided, as is updated information about other projects undertaken by the Oral Health Program.
Summary of Progress

Ninety percent of Kentucky's 4.1 million residents receive optimally fluoridated water. The remaining 10 percent of Kentuckians have wells, cisterns, or springs as their source of water.

The KIDS SMILE Children's Oral Screening and Fluoride Varnish application program has increased the number of children (aged 0 to 5) who have received oral health screenings. The program has also provided over 27,000 topical applications of fluoride varnish. Additionally, Kentucky has begun a sealant program in partnership with local health departments to encourage front-line public health agencies and local dental professionals to work together to combat childhood decay in permanent molars.

The oral health status of adults has also improved since the inception of this document. Data from the BRFSS indicate that the proportion of edentulous Kentuckians decreased from 42.9 percent in 1996 to 38.1 percent in 2004. Additionally, the proportion of adults using the oral health care system increased from 62 percent in 1996 to nearly 70 percent in 2004. And the proportion of oral cancer lesions detected early (in situ and local), has improved from 47 percent in 2000 to 49 percent in 2003. While this is a modest increase, it does bring Kentucky closer to the 2010 goal of 57 percent.

To meet the needs for data acquisition and analysis in the area of oral health, two surveys have been completed during this period: the Kentucky Children's Oral Health Profiles 2001 (University of Kentucky College of Dentistry) and the Kentucky Adult Oral Health Survey 2002 (University of Louisville School of Dentistry). A third survey, the Elder Oral Health Survey, is currently near completion (University of Kentucky College of Dentistry) and results will be reported by the end of 2006.

To monitor the health status of children and adults throughout the state on a continuous basis, the Children’s Oral Health Surveillance System (visual screening) and an adult surveillance program (using the BRFSS methodology) will be implemented in FY06.

Funding from the Health Resources and Services Administration and the Maternal and Child Health Bureau, has made possible the development of a statewide Oral Health Strategic Plan and a Dental Professional Workforce Study.

Progress toward Achieving Each HK 2010 Objective

9.1. Reduce the proportion of children who have had one or more dental caries in the primary and permanent teeth (filled or unfilled).

Data Source: 2001 Children's Oral Health Profiles

Baseline: 2001
• 46.8 percent of 2-5 year olds had caries
• 56.1 percent of children ages 6 to 8 had caries experience
• 56.1 percent of children age 12 had caries experience.
• No data available for adolescents age 15

**HK 2010 Target:**
• 15 percent among children ages 2 to 4
• 40 percent among children ages 6 to 8
• 50 percent among children age 12
• 55 percent among adolescents age 15

**Mid-Decade Status:** Data are not yet available

**Data Needs:** On-going data collection is necessary and will be achieved through the Children's Oral Health Surveillance System which will begin collecting data in the fall of 2005.

**Strategies to Achieve Objective:**

Current Strategies:
• Implement Kentucky Children's Oral Health Surveillance System, fall of 2005
• Continue Fluoride Varnish Program and Sealant Programs, in cooperation with local health departments
• Continue funding through HRSA/MCHB the Oral Health Collaborative Systems Grant
• Participate in Seal Kentucky, providing preventive sealants to children in Dental Professional Shortage Areas
• Continue to expand base of health professionals who are working to reduce childhood decay, including physicians, nurses and other health providers
• Maintain the community fluoridation program through the Kentucky Oral Health Program

9.2. Reduce the proportion of children with untreated cavities in the primary and permanent teeth (decayed teeth not filled).

**Data Source:** 2001 Children's Oral Health Profiles

**Baseline:**
• 28.7 percent of 2-5 year olds had caries

---

1 Convenience Sampling (n = 572) of children, 24-59 months of age, screened by dental and non-dental professionals in pediatric, family practice, health department and dental offices.
2 Kentucky 3rd and 6th graders (n = 5962) screened using a scientific sampling methodology (CI 95%) in public and private schools.
• 28.7 percent of children ages 6 to 8\textsuperscript{4} had untreated tooth decay
• Children age 12 – same as above
• Adolescents age 15 – data not available

**HK 2010 Target:**
• 12 percent among children ages 2 to 4
• 22 percent among children ages 6 to 8
• 20 percent among children age 12
• 15 percent among adolescents age 15

**Mid-Decade Status:** Data are not yet available.

**Data Needs:** On-going data collection is necessary and will be achieved through the Children’s Oral Health Surveillance System which will begin collecting data in the fall of 2005.

**Strategies to Achieve Objective:**

Current Strategies
• Implement Kentucky Children’s Oral Health Surveillance System, fall 2005
• Continue Fluoride Varnish Program and Sealant Programs, in cooperation with local health departments
• Continue funding through HRSA/MCHB the Oral Health Collaborative Systems Grant
• Participate in Seal Kentucky, providing preventive sealants to children in Dental Professional Shortage Areas
• Continue to expand base of health professionals who are working to reduce childhood decay, including physicians, nurses and other health providers
• Maintain the community fluoridation program through the Kentucky Oral Health Program

9.3. (Developmental) **Increase to at least 80 percent the number of edentulous or partially edentulous Kentuckians who have adequate replacement of natural dentition. (DELETED)**

**Reason for Deletion:** There are no data to track this objective, and none is anticipated in the near future.

9.4. **Reduce to no more than 23 percent the proportion of Kentuckians who have lost all of their natural teeth (edentulous).**

\textsuperscript{3} Convenience Sampling (n = 572) of children, 24 -59 months of age, screened by dental and non-dental professionals in pediatric, family practice, health department and dental offices.
\textsuperscript{4} Kentucky 3rd and 6th graders (n = 5962) screened using a scientific sampling methodology (CI 95\%) in public and private schools.
9.4R. (REVISION) Reduce the proportion of Kentuckians aged 65+ who have lost all of their natural teeth (edentulous).

**Reason for Revision:** The original objective measured a total population proportion. Data are being revised to reflect the national 2010 goal from CDC WONDER Data 2010.

**Data Source:** Behavioral Risk Factor Surveillance System (BRFSS)

**Baseline:** 42.9 percent in 1996

**HK 2010 Target:** 20 percent

**Mid-Decade Status:** 38.1 percent in 2004

![Figure 9.1 Percent of Edentulous Kentuckians Age 65 and Older, Kentucky, 1996, 2002, and 2004 (Source: BRFSS)](image)

**Strategies to Achieve Objective:**

**Current Strategies:**
- Completion of Elder Oral Health Survey (fall of 2005)
- Develop Oral Health Strategic Plan specific to Elder population (Special Populations Workgroup)

**Future Strategies:**
- Increase awareness of the importance of replacement of natural dentition through oral health education
- Work with the Kentucky Dental Association and the Kentucky Dental Health Coalition to increase options for replacement of natural dentition

9.5. **Increase the proportion of oropharyngeal cancer lesions detected at Stage I (local).**
9.5R. (REVISION) Increase the proportion of oral cancer lesions detected at Stage 0 and I (in-situ and local).

**Reason for Revision:** Oropharyngeal cancer refers to a cancer that occurs in a very limited and specific anatomic site. However, program planners follow the prevalence of the broader category of oral cancers because diagnosis at either stage of 0 (in situ) or 1 (local) may improve clinical outcomes.

**Data Sources:** The Kentucky Cancer Registry, University of Kentucky, Lexington, Kentucky.

**Baseline:** 47 percent in 2000

**HK 2010 Target:** 57 percent

**Mid-Decade Status:** 49 percent in 2003

![Figure 9.2 Percent of Oral Cancer Cases Diagnosed at Stage 0 (in situ) and 1 (local), Kentucky, 2000 - 2003 (Source: Kentucky Cancer Registry)](image)

**Strategies to Achieve Objective:**

**Current Strategies:**
- Through educational efforts, promote screening of high-risk populations by dental and medical providers during regular visits
- Work with physicians and other health care providers to identify and target high-risk populations of snuff users and to develop and integrate oral cancer screenings with other screenings
- Implement Kentucky's Spit Tobacco Cessation Program in partnership with local health departments

**Future Strategies:**
- Develop a list of questions for screening and self-assessment for disbursement to high risk populations through health care providers
9.6. Incorporate oral health information into school health programs

Increase the proportion of 8 year-olds, 12 year-olds and 15 year-olds who have received protective sealants in permanent molar teeth.

**Data Sources:** 2001 Children's Oral Health Profiles

**Baseline:** 29.1 percent of Kentucky 3rd and 6th graders have dental sealants.

**HK 2010 Target:** 50 percent

**Mid-Decade Status:** Same as baseline

**Data Needs:** On-going data collection is necessary and will be achieved through the Children's Oral Health Surveillance System which will begin collecting data in the fall of 2005.

**Strategies to Achieve Objective:**

**Current Strategies:**
- Implement Kentucky Children's Oral Health Surveillance System, fall 2005
- Continue Fluoride Varnish Program and Sealant Programs, in cooperation with local health departments
- Continue funding through HRSA/MCHB the Oral Health Collaborative Systems Grant
- Participate in Seal Kentucky, providing preventive sealants to children in Dental Professional Shortage Areas
- Continue to expand the base of health professionals who are working to reduce childhood decay, including physicians, nurses and other health providers

9.7. Increase the proportion of the population served by community water systems with optimally fluoridated water.

**Data Source:** Kentucky Oral Health Program Community Fluoridation Database

**Baseline:** 90 percent in 1996

**HK 2010 Target:** 95 percent or higher

**Mid-Decade Status:** 90 percent in 2004

**Strategies to Achieve Objective:**
Current Strategies:
• The Department for Public Health will continue to install equipment, provide maintenance, provide upgrades utilizing the latest technologies, and supply technical support to community water systems.
• Encourage local governments to expand water lines
• Explore ways to enhance referral from local health departments and the WIC Program for dental screening and consideration of oral supplements, when indicated
• Urge testing of private wells for fluoride content
• Provide oral supplements as needed

9.8. (Developmental) Increase to at least 70 percent the proportion of children ages 6, 7, 12, and 15 who have participated in an oral health screening, including those who have been referred, and those who have received the appropriate follow-up.

Note: There is currently an effort to establish a screening and referral system for these age groups. We anticipate that the first data from this system will be available before 2010.

9.9. Increase the proportion of adults aged 18 and older using the oral health care system (those who have visited a dentist at least once each year).

Data Source: BRFSS

Baseline: 62 percent in 1996

HK 2010 Target: 70 percent or higher

Mid-Decade Status: 69.8 percent in 2004
Figure 9.3 Percentage of Adult Kentuckians Who have Used the Oral Health System in the Past Year, Kentucky, 1996, 2002, and 2004 (Source: BRFSS)

Strategies to Achieve Objective:

Current Strategies:
- Collaborate with dentists, physicians and health educators to provide information to the public on the importance of keeping their teeth and the necessity of annual visits to an oral health care provider
- Collaborate with dental organizations to arrange screening opportunities (e.g. "screening days" at events such as the Kentucky State Fair, Bluegrass State Games, etc.)
- Support the expansion of regional dental clinics, mobile vans and other clinical resources to provide access to care for all of Kentucky's citizens
- Continue to expand the base of health professionals who are working to improve oral health, including physicians, nurses, and other health care providers

9.10. Increase to 100 percent the proportion of Family Resource Centers, Youth Service Centers and Family Resource/Youth Services Centers offering oral health education, screening, referral and follow-up activities. (DELETED)

Reason for Deletion: No current data source

9.11. (Developmental) Increase the proportion of local health departments that have an oral health education component focusing on adults and children from infancy through 5 years of age.

Data Source: Oral Health Program

Baseline: 25 percent in 1997

2010 Target: 100 percent
Mid-Decade Status: 90 percent in 2005

Strategies to Achieve Objective:

- Continue Kids Smile Screening and Fluoride Varnish Program as well as Sealant Programs, in cooperation with local health departments.
- Continued support of these programs from the state-level health educator
- Data collection from the Patient Services Reporting System (PSRS) regarding oral health education services
- Continued financial support of local health departments for oral health activities using state and federal funding sources.

9.12. (Developmental) Design, implement and fund on-going oral health surveillance systems to include components to measure youth, adult, and elder oral health.

Baseline: No systems exist as of 2000.

HK 2010 Target: Completion of surveys and surveillance system implementation

Mid-Decade Status:

- The Kentucky Children's Oral Health Profiles 2001 Survey (completed)
- The Kentucky Adult Oral Health Survey 2002 (completed)

Strategies to Achieve Objective:

Current Strategies:

- The Kentucky Elder Oral Health Survey to be completed in the fall of 2005
- The Children's Oral Health Surveillance System implemented in the fall of 2005
- Collaboration with the University of Louisville, the University of Kentucky and other academic health care professionals on these and other infrastructure activities
- Support for the Oral Health Program budget to include state funding as well as federal funding

Future Strategies:

- Kentucky Dental Workforce Analysis Survey to be completed in 2006
- Kentucky Adult Surveillance Program scheduled for implementation in 2006
9.13. (Developmental) Enhance the capability of long term care facilities to provide oral examinations and initiate necessary prevention, education and oral health treatment services no later than 90 days after entry into these facilities.

9.13R. (REVISION) Increase the proportion of long-term care residents who use the oral health care system each year.

Reason for Revision: The objective was revised to reflect the National 2010 objective.

Data Source: Kentucky Elder Oral Health Survey, 2005

Baseline: 28.3 percent in 2005

HK2010 Target: 50 percent

Mid-Decade Status: Same as baseline

Strategies to Achieve Objective:

Current Strategies:
- Collaborate with accreditation organizations to assure that facilities provide examinations and services
- Work with professional dental organizations to enhance dental access
- Collaborate with senior citizens agencies to assure nursing home residents and homebound elders have access to dental care

9.14. Ensure that Kentucky has a viable system for recording and referring infants and children up to age 5 with cleft lips, cleft palates, and other craniofacial anomalies to craniofacial anomaly rehabilitative teams.

Data Source: Kentucky Birth Surveillance Registry (KBSR)

Baseline: 18.3 (rate per 10,000) in 1998

HK 2010 Target: Statewide recording and referrals

Mid-Decade Status: 15.1 (rate per 10,000) in 2002
The Kentucky Birth Surveillance Registry intends to develop referral systems starting in early 2006.

**Data Needs:** Continued support of the Kentucky Birth Surveillance Registry.

**Strategies to Achieve Objective:**

- Collaborate with appropriate agencies within the Cabinet for Health and Family Services to plan and implement a system for the timely referral of infants and children up to age 5 with cleft lip, cleft palates and other craniofacial anomalies to craniofacial anomaly teams.

9.15. (Developmental) **Increase the proportion of children ages 2 through 5 who have received at least one annual fluoride varnish application and oral health screening, including adequate referral and follow-up as needed.**

**Data Source:** KIDS SMILE Children's Screening and Fluoride Varnish Database.

**Baseline:** 2005

- 11 percent of children age 2
- 9 percent of children age 3
- 11 percent of children age 4
- 7 percent of children age 5

**HK 2010 Target:** 50 percent for all age categories

**Mid-Decade Status:** Same as baseline

**Strategies to Achieve Objective:**
Current Strategies:
- Continue and expansion of the KIDS SMILE initiative
- Continue to expand the number of health professional partners who are educated in the competencies associated with children's oral health screenings; through the KIDS Smile Program and other public health venues
- Support the expansion of regional dental clinics, mobile vans and other clinical resources to provide access to care for all of Kentucky's children
- Continue to expand the base of health professionals who are working to reduce childhood decay, including physicians, nurses, and other health providers

Future Strategies:
- Develop and implement a school-based dental care management program initially targeted to Medicaid and KCHIP populations
- Ultimately expand the program to all children in these age groups
- Explore ways to enhance the availability of adequate referral sources and follow-up

Terminology

**BRFSS**: Behavioral Risk Factor Surveillance System; an adult telephone survey co-sponsored by the Centers for Disease Control and Prevention (CDC) and the Kentucky Department for Public Health—a major source of adult oral health data.

**COHSS**: Children's Oral Health Surveillance System

**Dental Caries**: Dental Cavities (decay)

**Dental Sealants**: Clear or opaque plastic resinous materials designed for professional application to the pit-and-fissure surfaces of teeth. This material hardens into a thin, protective coating.

**Edentulous**: Loss of natural teeth without replacement.

**Fluoride Varnish**: A viscous, resinous lacquer which, when painted onto the teeth, incorporates into the enamel, thereby strengthening the child's teeth.

**HRSA**: The Health Resources and Services Administration, (Washington, D.C.)

**Kentucky Birth Surveillance Registry**: The Kentucky Birth Surveillance Registry (KBSR) is a state mandated surveillance system designed to provide information on the incidence, prevalence, trends and possible causes of stillbirths, birth defects, and disabling conditions.
**KIDS SMILE:** Kentucky Children's Oral Screening and Fluoride Varnish Application Program.

**KIDS NOW:** Kentucky's Early Childhood Initiative, providing funding for many children's health programs including KIDS SMILE.

**MCHB:** Maternal and Child Health Bureau (Washington, D.C.)

**Oral Cancers:** Cancers occurring in all sites of the oral cavity and pharynx.

**Oral Health Collaborative Systems Grant:** A federal grant provided by the Health Resources and Services Administration and the Maternal and Child Health Bureau which funds many of Kentucky's Oral Health Programs.

**Oral Health Screening:** A visual exam by a trained, certified health professional for the purpose of oral health disease status assessment and referral (if indicated).

**Oropharyngeal Cancer:** Cancer occurring in the oropharynx only, which is a portion of the pharynx extending from the place of the superior surface of the soft palate to the superior surface of the hyoid bone (or the floor of the vallecula).

**Surveillance:** On-going systematic review and analysis of health data for the purpose of assessment and policy development.

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9. Oral Health – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Oral Health</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.1. Reduce the proportion of children who have had one or more dental caries in the primary and permanent teeth (filled or unfilled)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children Ages 2-5</td>
<td>46.8% (2001)</td>
<td>≤15%</td>
<td>46.8% (2001)</td>
<td>N/A</td>
<td>COHSS</td>
</tr>
<tr>
<td>Children Ages 6 to 8</td>
<td>56.1%</td>
<td>≤40%</td>
<td>56.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children Age 12</td>
<td>56.1%</td>
<td>≤50%</td>
<td>56.1%</td>
<td></td>
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</tr>
<tr>
<td>Adolescents Age 15</td>
<td>No Data</td>
<td>≤55%</td>
<td>No Data</td>
<td></td>
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</tr>
<tr>
<td>9.2. Reduce the proportion of children with untreated cavities in the primary and permanent teeth (decayed teeth not filled)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children Ages 2-5</td>
<td>28.7% (2001)</td>
<td>≤12%</td>
<td>28.7% (2001)</td>
<td>N/A</td>
<td>COHSS</td>
</tr>
<tr>
<td>Children Ages 6 to 8</td>
<td>28.7%</td>
<td>≤22%</td>
<td>28.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children Age 12</td>
<td>28.7%</td>
<td>≤20%</td>
<td>28.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescents Age 15</td>
<td>No Data</td>
<td>≤15%</td>
<td>No Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.3. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>9.4R. Reduce the proportion of Kentuckians 65+ who have lost all of their natural teeth (edentulous)</td>
<td>42.9% (1996)</td>
<td>≤20%</td>
<td>38.1% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>9.5R. Increase the proportion of oral cancer lesions detected at Stage 0 and 1 (in situ and local)</td>
<td>47% (2000)</td>
<td>≥57%</td>
<td>49% (2003)</td>
<td>Yes</td>
<td>KCR</td>
</tr>
<tr>
<td>9.6. Increase the proportion of 8 year olds, 12 year olds and 15 year olds who have received protective sealants in permanent molar teeth.</td>
<td>29.1% of Kentucky 3rd &amp; 6th graders have dental sealants. (2001)</td>
<td>≥50%</td>
<td>29.1% of Kentucky 3rd &amp; 6th graders have dental sealants. (2001)</td>
<td>N/A</td>
<td>COHSS</td>
</tr>
<tr>
<td>9.7. Increase proportion of the population served by community water systems with optimally fluoridated water.</td>
<td>90% of Kentucky's population received optimally fluoridated water in 1996.</td>
<td>≥95%</td>
<td>90% (2004)</td>
<td>No</td>
<td>Fluoridation Database</td>
</tr>
<tr>
<td>9.8. Increase the proportion of children aged 6, 8, 12 and 15 who have received an oral health screening.</td>
<td>TBD</td>
<td>≥70% of children Ages 6, 8, 12 and 15.</td>
<td>TBD</td>
<td>TBD</td>
<td>COHSS</td>
</tr>
</tbody>
</table>
## Summary of Objectives for Oral Health

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.9. Increase the proportion of adults aged 18 and older using the oral health care system each year.</td>
<td>62% of Kentuckian visited a dentist or dental clinic within the past 12 months. (1996)</td>
<td>≥70%</td>
<td>69.8% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>9.10. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.11. (Developmental) Increase the proportion of local health departments that have an oral health education component focusing on adults and children from infancy though 5 years of age.</td>
<td>25% (1997)</td>
<td>100%</td>
<td>90% (2005)</td>
<td>Yes</td>
<td>Local Health Dept. Survey</td>
</tr>
<tr>
<td>9.12. (Developmental) Design, implement and fund on-going oral health surveillance systems to include components to measure youth, adult and elder oral health</td>
<td>No systems in 2000</td>
<td>Surveillance Systems in Place</td>
<td>Children Adult and Elder Oral Health Surveys Completed</td>
<td>Yes</td>
<td>COHSS; Adult Oral Health Survey</td>
</tr>
<tr>
<td>9.13R. Increase the proportion of long term care residents who use the oral health care system each year.</td>
<td>28.3% (2005)</td>
<td>≥50%</td>
<td>28.3% (2005)</td>
<td>N/A</td>
<td>Elder Oral Health Survey</td>
</tr>
<tr>
<td>9.14. Insure that Kentucky has a viable system for recording and referring all infants and children up to age 5 with cleft lip, cleft palate and other craniofacial anomalies to craniofacial anomaly rehabilitative teams.</td>
<td>KBSR system in place</td>
<td>Referral system in operation</td>
<td>KBSR system in place</td>
<td>Yes</td>
<td>KBSR</td>
</tr>
<tr>
<td>9.15. (Developmental) Increase the proportion of children ages 2 through 5 who have received at least one annual fluoride varnish application and oral health screening, including adequate referral and follow-up as needed.</td>
<td>Age 2</td>
<td>11% (2005)</td>
<td>≥50%</td>
<td>11% (2005)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age 3</td>
<td>9%</td>
<td>≥50%</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age 4</td>
<td>11%</td>
<td>≥50%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Age 5</td>
<td>7%</td>
<td>≥50%</td>
<td>7%</td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective  
N/A = Only baseline data are available. Not able to determine progress at this time.  
TBD = To be determined. No reliable data currently exist.
10. Access to Quality Health Services

Goal

Improve access to a continuum of comprehensive, high quality health care using both the public and private sectors in Kentucky.

Overview

*Healthy Kentuckians 2010 built on the Healthy Kentuckian 2000* goals in the priority areas of Clinical Preventive Services and Health Services, which included both access and barrier issues in primary and preventive health care. *Healthy Kentuckians 2010* acknowledged those past efforts and looked at the many disparities remaining with the intent of eliminating as many of those disparities as possible in the arenas of Clinical Preventive Services, Primary Care, Emergency Medical Services, and Long-Term Care and Rehabilitative Services. The goals and objectives outlined focus on areas of large disparity where attention to prevention and quality can demonstrate improved health care delivery and outcomes. The Mid-Decade Review examines these goals for relevance and provides an update on progress.

Summary of Progress

Access to Quality Health Service objectives of Chapter 10 have seen mixed progress in the last five years. Much of the progress has been shaped by national events and initiatives not solely within the scope of control of a state agency. Other objectives are no longer under the purview of the state health agency, having been moved to agencies outside the Cabinet for Health and Family Services. Objectives previously associated with the Cabinet are not priorities for the reorganized agencies. Other objectives are still developmental and need constant and reliable data sources to be useful as tracking objectives.

Objectives 1 through 5 have seen an increase in uninsured over the period, despite hopeful signs of progress in reducing the degree of under or uninsured. Objectives 9 through 11 have seen some activity and recommendations are made to merge some of those objectives. The Emergency Medical Services (EMS) objectives (10.13, 10.14, and 10.17) were originally listed as developmental and are still that way. Progress has not been made toward institutionalizing these objectives. In fact, responsibility for the EMS program has been transferred out of the Cabinet for Health and Family Services to an independent body—the Kentucky Board of Emergency Medical Services (KBEAM). Over the next five years it is anticipated that the Cabinet would have an opportunity for input into EMS goals, objectives, and data needs. In the interim, however, the status of the EMS objectives remains undetermined.
Long Term Care (LTC) development Goals (Objectives 20, 21) are all still valid but will be difficult to validate without a reliable data source. Additionally, responsibility for health policy has been transferred to the newly created Office of Health Policy in the Secretary's Office, Cabinet for Health and Family Services. Further discussion needs to be held to determine if and how these objectives can be met. What is clear is that the occupancy rate in LTC facilities continues to drop while the population of elderly increases. This means that citizens are entering later stages of life in better physical health, and/or that adult day care and home health are providing increasingly sophisticated services that allow individuals to stay at home. The role of assisted living facilities is also important to the decrease in LTC stays. For future reference a look at the increased use of LTC insurance would be helpful because most policies have as a primary goal that of keeping people in their homes.

It is expected that over the next five years the new Office of Health Policy will have an opportunity to address some of the acute care and long term care objectives and data needs. In the interim, the status of Objectives 10.12, 10.16, and 10.18-10.23) remains undetermined.

**Progress toward Achieving Each HK 2010 Objective**

**Clinical Preventive Services**

**10.1. Reduce to zero the proportion of children and adults without health care coverage.**

**Data Sources:** Medical Expenditure Panel Survey (MEPS), Agency for Health Care Policy and Research (AHCPR), Behavioral Risk Factor Surveillance System (BRFSS)

**Baseline:** In 1998, 14.3 percent of adult Kentuckians were uninsured. (BRFSS data)

**HK 2010 Target:** 0 percent

**Mid-Decade Status:** 14.9 percent (2004)
**Data Needs:** Data on children and adolescents under age 18

**Strategies to Achieve Objective:**
- Continue to provide education regarding Medicaid benefits
- Explore opportunities to work with small businesses and other employers to help provide health insurance benefits to their employees

**10.2. Increase the proportion of patients who have coverage for clinical preventive services as part of their health insurance.**

**Potential Data Sources:**
- Rural Health Clinics, Primary Care Centers and Federally Qualified Health Centers
- Department of Personnel – Insurance Analysis Branch

**Strategies to Achieve Objective:**
- Include coverage for clinical preventive services in state employees insurance as a pilot program to test for viability
- Awareness is always the first step. Start a statewide campaign on the value and cost effectiveness of preventive health services

**10.3. (Developmental) Increase the proportion of current smokers and problem drinkers who report being counseled about smoking and alcohol use at the last visit to their health care provider.**

**Data Source:** BRFSS. This is a developmental objective and baseline data was not available in 2000. The question on the survey only addressed smokers.
Baseline: 73.3 percent in 2003

HK 2010 Target: 75 percent

Mid-Decade Status: 70.8 percent in 2004

Data Needs: Data on problem drinkers who report being counseled about smoking and alcohol use at the last visit to their health care provider

Strategies to Achieve Objective:

- Develop assessment tools to be used within communities to identify current smokers and problem drinkers
- Utilize the Health Risk Assessment at the initial visit to the local health department and every three years thereafter as directed in the Public Health Practice Reference
- Update information with appropriate counseling at each visit to the health department
- Provide appropriate education for nurses on smoking cessation and alcohol abuse to assure knowledge of the latest statistics and management options that will be used in counseling clients
- Write and utilize additional questions as needed for BRFSS
  Assess smoking and problem drinking among 18-24 year olds

10.4. Increase the collection and reporting of information on delivery of recommended clinical preventive services, by provider group, health plan, health system and payer status.

Potential Data Sources:

- Department of Personnel – Insurance Analysis Branch
- Department for Adult and Child Health Databases

Baseline: Has not been established

HK 2010 Target: Increase collection and reporting on clinical preventive services

Mid-Decade Status: Baseline has yet to be established; efforts have not been undertaken to achieve this objective

Data Needs: Data on preventive health services by health plan and provider type

Strategies to Achieve Objective:
• Develop a statewide awareness campaign on the value of preventive services
• Work with the Department of Personnel to get this information from the state employees’ self-insurance plan

10.5. Increase the proportion of physicians, PA’s, nurses and other clinicians who receive appropriate training to address important health disparities: disease prevention and health promotion, minority health, women’s health, and geriatrics.

Potential Data Sources:
• Local Health Departments
• Senior Citizens Center programs
• Home Health Providers
• CEU’s from KY Medical Licensure Board
• CEU’s from KY Board of Nursing
• TRAIN System

Baseline: Has not been established

HK 2010 Target: Increase the proportion of physicians, PA’s, and other practitioners who receive training to address health disparities

Mid-Decade Status: Baseline has yet to be established; efforts have not been undertaken to achieve this objective

Data Needs: Health disparity training data by provider type from appropriate institutions

Strategies to Achieve Objective:
• Grant incentives to medical schools for addressing and requiring interaction on important health disparities in the above named groups
• Review Minimum Data Sets (MDS) used in determining the Long Term Care resident’s acuity level for payment
• Promote geriatric health contacts in Senior Citizens Centers by bringing medical and nursing students in as a part of their course of study
• CEU’s from KY Medical Licensure Board
• CEU’s from KY Board of Nursing
• TRAIN System data
10.6. Increase to at least 90 percent the proportion of people who have a specific source of ongoing primary care.

**Data Source:** BRFSS

**Baseline:** 84.4 percent (Established with BRFSS data in 2001)

**HK 2010 Target:** 90 percent

**Mid Decade Status:** 82.9 percent in 2004

![Figure 10.2 Percentage of Adults (Age 18+) with a Specific Source of Ongoing Primary Care, Kentucky, 2001-2004 (Source: BRFSS)](image)

**Strategies to Achieve Objective:**

- Continue to recommend the placement of primary care physicians through the Conrad State 30 J-1 Visa Waiver Program, the Appalachian Regional Commission, the Health and Human Services, and the Delta Regional Authority J-1 Visa Waiver Programs
- Continue to partner with National Health Service Corps in placement of primary care physicians in Health Professional Shortage Areas
- Continue to provide support to the participants of the Charitable Health Care Provider Program
- Continued use of safety net providers such as Community Health Centers, local health departments, primary care centers, and free clinics
- In view of the suggested emphasis on children, attention should be given to alternatives such as school-based clinics. For young adults, insurance coverage is likely an issue. Thus attention to insurance,
college-based, and work-place initiatives (education and service) should be considered

10.7. Increase to at least 95 percent the proportion of children 18 years and under who have a specific source of primary care. (DELETED)

**Reason for Deletion:** Lack of a data source

10.8. Reduce to no more than 7 percent, the proportion of individuals/families who report that they did not obtain all of the health care that they needed.

**Data Source:** BRFSS

**Baseline:** 13.8 percent in 2000

**HK 2010 Target:** 7 percent

**Mid-Decade Status:** For year 2001, the question was not asked on the BRFSS survey. BRFSS data from 2003 showed that 17.9 percent of people reported they did not obtain all the health care they needed.

**Data Needs:** An ongoing yearly data source for reporting patient information

**Strategies to Achieve Objective:**

- Assure that health care providers understand the importance of validating with the patient their perception of the care received at the conclusion of an encounter. This may involve statewide training in the delivery of primary care.

10.9. Reduce the percentage of the population reporting no type of health insurance coverage to 10.0 percent (DELETED)

**Reason for Deletion:** Combined with Obj. 10.1

10.10. Reduce by 25 percent the number of individuals lacking access to a primary care provider in underserved areas.

**Data Source:** The Bureau of Primary Health Care Shortage Designation database in HRSA provides estimates of the number of people who lack access to a primary care provider in underserved areas.
Baseline: An estimated 987,322 people lacked access to primary care providers in underserved areas in 1997.

HK 2010 Target: The target is a 25 percent reduction in the number of underserved which would be 740,492 people.

Mid-Decade Status: Data from HRSA showed that in 2004 the total population of Kentucky was 4,041,769. The total underserved population was 707,271 or a 28.3 percent reduction in the number of underserved from 1997.

Data Needs: Continued availability of HRSA database

Strategies to Achieve Objective:

- Implement a State Loan Repayment Program using federal and local funding
- Monitor use of International Medical Graduates in underserved areas
- Coordinate free health clinic programs, Kentucky Physicians’ Care Program, and other mechanisms for low cost or free care to those who cannot afford care

10.11. Increase by 2.0 percent the proportion of all degrees in the health professions and allied and associated health professions fields awarded to members of under represented racial and ethnic minority groups. (See Revision)

10.11R. (REVISION) Increase the proportion of individuals from under represented racial and ethnic minority groups that have registered for licensure with the Board of Nursing.

Reason for Revision: Objective reflects data collected from the Kentucky Board of Nursing.

Data Sources: Kentucky Board of Nursing

Baseline: Established in 2005

Mid-Decade Status: Baseline established in 2005 as the following:
2005 Kentucky Board of Nursing RN Licensure
Count by Racial/Ethnic Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>1305</td>
<td>2.5</td>
</tr>
<tr>
<td>Asian Indian</td>
<td>28</td>
<td>.05</td>
</tr>
<tr>
<td>Asian- Other</td>
<td>287</td>
<td>.6</td>
</tr>
<tr>
<td>Hispanic</td>
<td>144</td>
<td>.3</td>
</tr>
<tr>
<td>Native American</td>
<td>184</td>
<td>.4</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>33</td>
<td>.06</td>
</tr>
<tr>
<td>White- Not of Hispanic Origin</td>
<td>49690</td>
<td>95.8</td>
</tr>
<tr>
<td>Other</td>
<td>174</td>
<td>.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>51845</td>
<td>100.00</td>
</tr>
</tbody>
</table>

2005 Kentucky Board of Nursing LPN Licensure
Count by Racial/Ethnic Group

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>1370</td>
<td>8.5</td>
</tr>
<tr>
<td>Asian Indian</td>
<td>9</td>
<td>.06</td>
</tr>
<tr>
<td>Asian – Other</td>
<td>32</td>
<td>.2</td>
</tr>
<tr>
<td>Hispanic</td>
<td>61</td>
<td>.4</td>
</tr>
<tr>
<td>Native American</td>
<td>130</td>
<td>.8</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>4</td>
<td>.03</td>
</tr>
<tr>
<td>White – Not of Hispanic Origin</td>
<td>14427</td>
<td>89.7</td>
</tr>
<tr>
<td>Other</td>
<td>57</td>
<td>.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>16090</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Data Needs:** None

**Strategies to Achieve Objective:**

- Work with the nursing schools and other public health organizations and associations to facilitate availability of federal and state funds for scholarships for persons from under represented ethnic groups
10.12. Reduce preventable hospitalization rates by 25 percent for chronic illness for three ambulatory care sensitive conditions – pediatric asthma, immunization preventable pneumonia and influenza in the elderly, and diabetes – by improving access to high quality primary care services.

Potential Data Source:
Hospital Inpatient Discharge Database

Baseline: Baseline has not been established.

HK 2010 Target: Reduce preventable hospitalization rates by 25 percent for certain chronic illnesses

Mid-Decade Status: Baseline has not yet been determined.

Strategies to Achieve Objective:

- Share information with the new Office of Health Planning
- Provide incentives to insurers/insured that require insured to go to ambulatory care centers instead of ER – begin with state employees
- Require Long Term Care Facilities to vaccinate all residents/staff for influenza and preventable pneumonia
- Educational/awareness campaign for patients, communities, and providers emphasizing the effectiveness of preventive care in reducing the need for hospitalization

10.13. Increase the proportion of all individuals who have access to rapidly responding pre-hospital EMS.

Potential Data Sources:

- Data from the KY Board of Emergency Medical Services (KBEAM)
- Data from Area Development Districts

Baseline: Not yet determined

HK 2010 Target: Increase the proportion of Kentuckians who have access to pre-hospital EMS services

Mid-Decade Status: Unknown at this time (responsibility for EMS programs has been transferred to an independent Board)

Data Needs: Data on availability/accessibility of pre-hospital EMS services
Strategies to Achieve Objective:

- Encourage EMS regions to have Memoranda of Understanding (MOU’s) that state deployment of nearest vehicle no matter the service provider

10.14. (Developmental) Increase the proportion of patients whose access to EMS when and where they need them is unimpeded by their health plan’s coverage or payment policies.

Data Source: The ambulance run form database being created through a contract with the SIPP will provide a source of information about payment plans being accepted by ambulance service providers.

Baseline: Not yet determined

HK 2010 Target: Increase the proportion of patients whose access to EMS is not impacted by health plan coverage or payment policies

Mid-Decade Status: Unknown--not yet determined

Data Needs: Data on payment plans/payment sources for EMS runs

Strategies to Achieve Objective:

- Assure that the Cabinet has input on data that is needed re EMS to assess Kentucky’s leading health indicators and 2010 objectives ($500,000 has been allocated from the Cabinet’s Bioterrorism Grant for a Request for Proposal (RFP) to develop a reliable EMS data source.)
- Use a database of ambulance run form information to analyze the payment plans now being accepted for emergency runs
- Design and implement a survey to determine how people perceive their coverage of EMS. This will provide an estimate of the proportion of people who do not call an ambulance because of the cost.
- Develop percentage goals based on the information provided from the ambulance run form database and the survey
- Devise strategies to increase the proportion of patients whose access to emergency services is unimpeded by their health plans’ coverage or payment policies
- Measure progress toward the percentage goals established through continuous monitoring of ambulance run databases (when available) and, if appropriate, conduct repeat surveys
- Revise strategies as necessary
10.15. Partner with the Kentucky Regional Poison Center to facilitate establishment of 1-800-POISON for 24-hour access and to reduce the incidence of poisoning incidents in Kentucky. (DELETED)

**Reason for Deletion:** This objective overlaps Objective 7.5R in Chapter 7-Injury/Violence Prevention and Objective 5.7R in Chapter 5-Environmental Health. These Chapter Objectives adequately address the intent of Objective 10.15, thus it is being deleted.

10.16. (Developmental) **Assess the proportion of eligible patients with acute myocardial infarction (AMI) who currently receive clot-dissolving therapy within an hour of symptom onset, and establish a realistic plan for improvement.**

**Data Source:** The Operation Heartbeat Program will provide information about the proportion of patients with AMI who receive clot dissolving therapy.

**Baseline:** Unknown

**HK 2010 Target:** Establish an improvement plan to increase the number of persons with AMI who receive clot-dissolving therapy

**Mid-Decade Status:** Unknown at this time

**Data Needs:** Availability and access to data from Operation Heartbeat

**Strategies to Achieve Objective:**

- Share the 2010 objectives and strategies with the new Office of Health Policy in the Secretary’s Office, Cabinet for Health and Family Services
- Utilize contacts with individuals administering the Operation Heartbeat program to assess the proportion of eligible patients with AMI currently receiving clot-dissolving therapy within an hour of symptom onset
- From the baseline data, develop percentage goals for improvement
- Develop a plan of action for achieving the established percentage goal
- Measure progress toward the percentage goal through periodic querying of Operation Heartbeat program personnel
- Revise strategies as necessary to obtain positive results

10.17. (Developmental) **Assess the proportion of persons with witnessed, out-of hospital cardiac arrest currently receiving their first therapeutic shock within 10 minutes of collapse recognition, and establish a realistic plan for improvement.**
**Data Source:** An ambulance run database will provide information on the proportion of persons with out-of-hospital cardiac arrest who receive therapeutic shock

**Baseline:** Not established

**HK 2010 Target:** Establish a plan of improvement for increasing the proportion of persons with out-of-hospital cardiac arrest who receive therapeutic shock

**Mid-Decade Status:** Unknown at this time

**Data Needs:** Availability of a reliable data source from ambulance runs

**Strategies to Achieve Objective:**

- Use EMS data (when available) to determine the proportion of persons with out-of-hospital cardiac arrest who currently receive their first therapeutic shock within 10 minutes of collapse recognition
- From the baseline data, develop percentage goals for improvement
- Develop a plan of action for achieving the established percentage goals. The plan will include promulgating regulations to require automatic external defibrillators (AED) to be placed in all BLS ambulances and supporting legislation to encourage AED program development in communities.
- Measure progress toward the percentage goals through continuous monitoring of the database runs
- Revise strategies as necessary to obtain positive results

10.18. (Developmental) **Incorporate “model” pediatric ALS and BLS protocols into a comprehensive set of protocols for both adults and children. Facilitate implementation and use of comprehensive protocols through use of the Internet and monitor usage.**

**Data Source:** Medical Standards/Delegated Practice Committee (MS/DPC) of the Kentucky EMS Council, Kentucky Board of Medical Licensure (KBML)

**Baseline:** Unknown

**HK 2010 Target:** Facilitate implementation of comprehensive ALS and BLS protocols

**Mid-Decade Status:** Unknown at this time
Data Needs: Development of protocols and reliable data source on use of protocols

Strategies to Achieve Objective:

- Share information with the new Office of Health Policy
- Develop a protocol template and a comprehensive list of conditions for which protocols must be written
- Utilize members of the MS/DPC and others with recognized expertise in prehospital clinical care to review existing protocols in use, training and practice standards for EMTs and paramedics, and other “model” protocols
- Develop for each medical condition one or more adult and pediatric protocols. The different protocols for each condition will take into account varying degrees to which physician medical directors are willing to authorize procedures or drugs to be utilized without specific “on-line” authorization
- Obtain approval from the KBML for local physicians and ambulance services to use these protocols as written without separate approval for each service
- Establish a means, through the Internet or similar mechanism, for local medical directors to view the protocols, download copies, and notify KBML of their local usage
- Periodically review and revise each protocol to reflect current medical practice

10.19. (Developmental) Develop and implement a voluntary program to identify hospitals that are prepared and committed to provide emergency treatment for children. Disseminate information about such hospitals to ambulance services and the public.

Data Source: Medical professional associations, state emergency medical services organizations, Kentucky hospitals

Baseline: Unknown

HK 2010 Target: Develop and disseminate information about a program to identify hospitals providing emergency services to children

Mid-Decade Status: Unknown

Data Needs: Periodic updating of hospital information

Strategies to Achieve Objective:
Re-determine on a periodic basis which hospitals meet the minimum guidelines and establish a procedure for identifying and recognizing each hospital through certificates of recognition, public service announcements, publications, and dissemination of lists, and other means.

**Long Term Care**

10.20. (Developmental) Increase the number of primary care providers who routinely provide or refer potential long-term care patients for a functional assessment.

- Primary Care Providers:
  - Private Physicians
  - Primary Care Centers
  - Rural Health Clinics
  - Hospitals

NOTE: Currently functional assessments are conducted by Rehabilitation Centers, Home Health providers, Home and Community Based providers, Area Development District In-Home Care and Aging Service providers and Nursing Facilities (includes Intermediate Care for the Mentally Ill and Residential Care), Adult Day Care, and Support for Community Living services.

**Data Source:** Cabinet for Health and Family Services/Division for Aging Services and Division of Licensing and Regulations, Primary Care Providers Survey

**Baseline:** Undetermined

**HK 2010 Target:** Increase the number of primary care providers who provide or refer long term care patients for functional assessments

**Mid-Decade Status:** Unknown

**Data Needs:** Analysis of provider survey to establish baseline data

**Strategies to Achieve Objective:**

- Analyze available data to establish baseline
- Develop educational materials for distribution at potential referral sites
- Develop a sample functional assessment tool for use by primary care providers
- Provide potential referral resource lists for use by primary care providers
10.21. (Developmental) Increase the proportion of primary care providers who routinely evaluate, treat, and, if appropriate, refer their long-term care patients to subacute rehabilitative and other services to address:
  • Physical mobility
  • Urinary incontinence
  • Polypharmacy
  • Communicating and hearing disorders
  • Depression
  • Dementia
  • Mental disorders, including alcoholism and substance abuse.

Data Source: Primary care provider survey and data from the Division of Aging Services

Baseline: Unknown

HK 2010 Target: Increase the proportion of primary care providers who evaluate and refer their long term care patients to subacute rehabilitative services

Mid-Decade Status: Unknown at this time

Data Needs: Analysis of primary care provider survey

Strategies to Achieve Objective:

• Share 2010 objectives with the newly formed Office of Health Policy and develop educational materials addressing need for and benefit of subacute rehabilitative services for long-term care patients
• Educate the general population, with focus on those seeking long term care services, in regards to:
  o The need for and benefit of rehabilitative and other services
  o The potential impact of polypharmacy
  o The need to be knowledgeable about medications and their actions in the long term care population
• Educate potential primary care providers regarding rehabilitative needs and potential impact of polypharmacy on the long term care population

10.22. (Developmental) Assure that every person with long-term care needs has access to the continuum of long-term care services, especially:
  • Nursing home care
  • Home health care
  • Adult day care
• Assisted living

Data Source: National Long Term Care Survey, Medicare Beneficiary Survey, HCFA, and data from Cabinet for Health and Family Services/Division for Aging Services.

Baseline: Undetermined

HK 2010 Target: Assure that every person with long term care needs has access to a continuum of services

Mid-Decade Status: Unknown

Data Needs: Compilation and analysis of available data

Strategies to Achieve Objective:

• Share 2010 objectives with the newly formed Office of Health Policy
• Educate legislators and regulatory bodies on the need for equitable access for long term care services to those with needs
• Investigate potential financial and provider avenues to expand current services and/or develop new services to allow access to the long term care continuum for those in need

10.23. Reduce to no more than 6.0 per 1,000 the proportion of nursing home residents with pressure ulcers at stage 2 or greater.

Data Source: Minimum Data Sets (MDS) used in determining the long term care resident’s acuity level for payment.

• Data extracted from OIG nursing facility inspection reports
• Data from the Divisions of Aging Services and Adult and Child Protection

Baseline: Unknown

HK 2010 Target: Reduce to 6 or less per 1,000 nursing home residents who have stage 2 or greater pressure ulcers

Mid-Decade Status: Unknown

Data Needs: Compilation and analysis of available data

Strategies to Achieve Objective:

• Share 2010 objectives with the newly formed Office of Health Policy
- Mandate the number of first line caregivers per the number of licensed residents or the average occupancy rate

**References**

- BRFSS Data 2000 - 2004,
- Hospital Inpatient Discharge Database
- Kentucky Board of Nursing

**Contributors**

- John Hensley, Health Care Access Branch, Adult and Child Health Improvement Division, Department for Public Health, Chapter Co-coordinator
- Charles Kendell. Assistant to the Commissioner, Department for Public Health, Chapter Co-coordinator
- Martha Graves, Health Policy Branch (now defunct), Department for Public Health
- Sarah Wilding, Chief Nurse, Department for Public Health
## 10. Access to Quality Health Services – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Access to Quality Health Services</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>10.1. Reduce to zero the proportion of children and adults without health care coverage.</strong></td>
<td>Adults: 14.3% (1998)</td>
<td>0%</td>
<td>14.9% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>10.2. Increase the proportion of patients who have coverage for clinical preventive services as part of their health insurance.</strong></td>
<td>TBD</td>
<td>Increase</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>10.3. (Developmental) Increase the proportion of current smokers and problem drinkers who report being counseled about smoking and alcohol use at the last visit to their health care provider.</strong></td>
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<td>75%</td>
<td>70.8% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>10.4. Increase the collection and reporting of information on delivery of recommended clinical preventive services, by provider group, health plan, health system and payer status.</strong></td>
<td>TBD</td>
<td>Increase</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>10.5. Increase the proportion of physicians, PA’s, nurses and other clinicians who receive appropriate training to address important health disparities: disease prevention and health promotion, minority health, women’s health, geriatrics.</strong></td>
<td>TBD</td>
<td>Increase</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td><strong>10.6. Increase to at least 90 percent the proportion of people who have a specific source of ongoing primary care.</strong></td>
<td>84.4% (2001)</td>
<td>90.0%</td>
<td>82.9% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>10.7. (DELETED).</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10.8. Reduce to no more than 7 percent, the proportion of individuals/families who report that they did not obtain all of the health care that they needed.</strong></td>
<td>13.8% (2000)</td>
<td>7%</td>
<td>17.9% (2003)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>10.9. (DELETED)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>10.10. Reduce by 25 percent the number of individuals lacking access to a primary care provider in underserved areas.</strong></td>
<td>987,322 (1997)</td>
<td>740,492</td>
<td>707,271 (2004)</td>
<td>Target Achieved</td>
<td>HRSA</td>
</tr>
<tr>
<td><strong>10.11R. Increase the proportion of individuals from under represented racial and ethnic minority groups that have registered for licensure with the Board of Nursing.</strong></td>
<td>RN (2005) Af. Am. 2.5% Asian Indian .05% Asian Oth. .55% Hispanic .28% Native Am. .36% Pac. Isl. .06% White/NH 95.84% LPN (2005)</td>
<td>Increase from under represented minority groups</td>
<td>RN (2005) Af. Am. 2.5% Asian Indian .05% Asian Oth. .55% Hispanic .28% Native Am. .36% Pac. Isl. .06% White/NH 95.84% LPN (2005)</td>
<td>N/A</td>
<td>KY Board of Nursing</td>
</tr>
</tbody>
</table>
### Summary of Objectives for Access to Quality Health Services

<p>| 10.12. | Reduce preventable hospitalization rates by 25 percent for chronic illness for three ambulatory care sensitive conditions – pediatric asthma, immunization preventable pneumonia and influenza in the elderly, and diabetes – by improving access to high quality primary care services. | TBD | Reduce by 25% | TBD | TBD |
| 10.13. | Increase the proportion of all individuals who have access to rapidly responding pre-hospital EMS. | TBD | Increase | TBD | TBD |
| 10.14. | Increase the proportion of patients whose access to EMS when and where they need them is unimpeded by their health plan’s coverage or payment policies. | TBD | TBD | TBD | TBD |
| 10.15. | (DELETED) | TBD | TBD | TBD | TBD |
| 10.16. | Assess the proportion of eligible patients with acute myocardial infarction (AMI) who currently receive clot-dissolving therapy within an hour of symptom onset, and establish a realistic plan for improvement. | TBD | TBD | TBD | TBD |
| 10.17. | Assess the proportion of persons with witnessed, out-of-hospital cardiac arrest currently receiving their first therapeutic shock within 10 minutes of collapse recognition, and establish a realistic plan for improvement. | TBD | TBD | TBD | TBD |
| 10.18. | Incorporate “model” pediatric ALS and BLS protocols into a comprehensive set of protocols for both adults and children. Facilitate implementation and use of comprehensive protocols through use of the Internet and monitor usage. | TBD | Incorporate Standards | TBD | TBD |</p>
<table>
<thead>
<tr>
<th>Summary of Objectives for Access to Quality Health Services</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.19. (Developmental) Develop and implement a voluntary program to identify hospitals that are prepared and committed to provide emergency treatment for children. Disseminate information about such hospitals to ambulance services and the public.</td>
<td>TBD</td>
<td>Program developed</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>10.20. (Developmental) Increase the number of primary care providers who routinely provide or refer potential long-term care patients for a functional assessment.</td>
<td>TBD</td>
<td>Increase</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
| 10.21. (Developmental) Increase the proportion of primary care providers who routinely evaluate, treat, and, if appropriate, refer their long-term care patients to subacute rehabilitative and other services to address:  
  - Physical mobility  
  - Urinary incontinence  
  - Polypharmacy  
  - Communicating and hearing disorders  
  - Depression  
  - Dementia  
  - Mental disorders, including alcoholism and substance abuse. | TBD | Increase | TBD | TBD | TBD |
| 10.22. (Developmental) Assure that every person with long-term care needs has access to the continuum of long-term care services, especially:  
  Nursing home care  
  Home health care  
  Adult day care  
  Assisted living | TBD | Assure access | TBD | TBD | TBD |
| 10.23. Reduce to no more than 6.0 per 1,000 the proportion of nursing home residents with pressure ulcers at stage 2 or greater. | TBD | Reduce to no more than 6.0 per 1,000 | TBD | TBD | TBD |

R = Revised objective, N = New objective  
N/A = Only baseline data are available. Not able to determine progress at this time.  
TBD = To be determined. No reliable data currently exist.
11. Family Planning

Goal

Make all pregnancies in Kentucky intended pregnancies.

Overview

The mission of the Kentucky statewide Family Planning Program remains that of providing the target population of low-income men, women and teens the information and the means to choose the number and the spacing of their children. Kentucky’s priorities are identical to those of the federal Title X Program in fulfilling this mission. Reducing unintended pregnancies in Kentucky will have far-reaching effects in both medical and social settings. The social costs of unintended pregnancies include reduced educational achievement, reduced employment opportunities, increased welfare rolls, and increased potential for domestic violence and child abuse. Rising medical costs can create a barrier for individuals seeking family planning services. Limited availability of federally funded family planning services can be directly associated with the resultant number of low birth weight infants, Sudden Infant Death Syndrome (SIDS), neonatal mortality, miscarriages, and follow-up treatment for “babies having babies”.

While most people obtain contraceptive care from a private physician, access can be problematic for those who cannot afford a private physician, for those who need confidential care, or who live in areas where few private physicians are available. Federally funded family planning programs assist in eliminating the disparity in access to preventive and reproductive healthcare. Federally funded family planning services allow individuals the availability and accessibility of contraceptive services and supplies while supporting their motivation to act on that information to protect themselves and their partners from unwanted outcomes.

Summary of Progress

Great strides have been made toward achieving the 2010 objectives. The target was surpassed for objective 11.1 which relates to increasing planned pregnancies among women age 15-44. The target was 60 percent for this objective and the mid-decade status was 85.7 percent. Progress was made toward achieving Objective 11.5R. For this objective, the number of men who received services at family planning clinics increased by 21 percent. For objective 11.6R, the pregnancy rate among adolescents age 15 to 17 declined 19 percent. The Kentucky Family Planning Program plans to increase women’s knowledge about the availability of highly effective contraception since progress was not made in reaching this objective. Only baseline data are available for the other objectives; however, strategies are in place to promote progress in attaining their 2010 targets.
The State Family Planning Program continually reinforces to its delegate agencies the need to increase community access and awareness of family planning services. Increasing the number of clinic days, expanding clinic hours, and broadening community outreach are all ways to eliminate current health disparities.

**Progress toward Achieving Each HK 2010 Objective**

11.1. (Developmental) **Increase to at least 60 percent the proportion of all pregnancies among women 15-44 that are planned (intended)** (See Revision).

11.1R. (REVISION) **Increase to at least 87 percent the proportion of all pregnancies among women 15-44 that are planned.**

**Reason for Revision:** In the developmental objective the target was set below the baseline. The new target is set at least one unit above the baseline.

**Data Source:** Behavioral Risk Factor Surveillance System (BRFSS). Refused and unknown responses are excluded. The BRFSS only surveys adults aged 18 and over so the 15-17 year olds are not reflected in this data. For years 2001, 2002, and 2004 the question was not asked on the survey. The question is currently being asked on the 2005 survey.

This is a developmental objective. At the time the target was set, a data source was not available. In 2000, a question was included on the BRFSS to measure this goal. The prevalence data obtained from this question was actually higher than the original target.

**Baseline:** 85.1 percent in 2000

**HK 2010 Target:** 87 percent

**Mid-Decade Status:** 85.7 percent in 2003
Figure 11.1 Percentage of Pregnancies among Women Age 18-44 that Are Planned, Kentucky, 2000 and 2003 (Source: BRFSS)

Data Needs: Data on 15 to 17 year olds are needed. In the fall of 2005 the Kentucky Department for Public Health will be applying for a grant to administer the Pregnancy Risk Assessment Monitoring System (PRAMS). Data from this survey will be needed to track planned pregnancies among this age group.

Strategies to Achieve Objective:

- Assure Kentuckians easy access to contraceptive services and supplies
- Target hard-to-reach populations through outreach, education and specialized services
- Make preconception services available to women of childbearing age regardless of income
- Provide the most effective contraceptive choice
- Apply for the PRAMS federal grant

11.2. Decrease to no more than 7 percent the proportion of women aged 15-44 experiencing pregnancy despite use of a reversible contraceptive method.

Data Source: BRFSS. Refused and unknown responses are excluded. The BRFSS only surveys adults aged 18 and over, so the 15-17 year olds are not reflected in this data. For years 2000, 2001, 2002, and 2004 the question was not asked on the survey. The question is currently being asked on the 2005 survey.

A baseline was not included with the original HK 2010 objective. Therefore, the baseline will be set with the first year of data available.
Baseline: 17.3 percent in 2003

HK 2010 Target: 7 percent

Mid-Decade Status: Same as baseline

![Figure 11.2 Percentage of Women Experiencing Pregnancy Despite the Use of Reversible Contraception, Kentucky, 2003 (Source: BRFSS)]

Data Needs: Data on 15 to 17 year olds are needed. In the fall of 2005 the Kentucky Department for Public Health will be applying for a grant to administer PRAMS. Data from this survey will be needed to track planned pregnancies among this age group.

Strategies to Achieve Objective:

- Continue availability of funding for family planning services
- Continue to educate sexually active individuals on the efficiency of various contraceptive methods via clinic and educational programs

11.3. Increase to at least 95 percent the proportion of all females aged 15-44 at risk of unintended pregnancy who use highly effective contraception.

Data Sources: BRFSS, Refused and unknown responses are excluded. The BRFSS only surveys adults aged 18 and over so the 15-17 year olds are not reflected in this data. For years 2001, 2003, and 2005, the question was not asked on the survey.

A baseline was not included with the original HK 2010 objective. Therefore, the baseline was set with the first year of data available.

Baseline: 67.9 percent in 2000
HK 2010 Target: 95 percent

Mid-Decade Status: 53.9 percent in 2002

Figure 11.3 Percentage of Females Age 18-44 at Risk for Unintended Pregnancy Who Use Highly-effective Contraception, Kentucky, 2000 and 2002 (Source: BRFSS)

Data Needs: Data on 15 to 17 year olds are needed. In the fall of 2005 the Kentucky Department for Public Health will be applying for a grant to administer PRAMS. Data from this survey will be needed to track planned pregnancies among this age group.

Strategies to Achieve Objective:

- Continue school and community based teen pregnancy prevention programs through Title X Special Initiative
- Increase the percentage of funding for highly effective contraceptive choices
- Expand clinic hours and nontraditional family planning services, exploring opportunities in school based clinics
- Promote implementation of preconception counseling within the education system and include explanations of highly effective contraceptive methods
- Continue Brown-Bag Program and look for expansion opportunities in community settings
- Ensure that all females of childbearing age without permanent contraception are offered Family Planning services in the health department when they present for any service
11.4. Increase to 100 percent the proportion of Title X family planning clinics that provide, either directly or through referral, postcoital hormonal contraception.

**Data Source:** Patient Services Reporting System (PSRS). This data system is specific to local health departments only and does not reflect services received in the private sector.

A baseline was not included with the original HK 2010 objective. Therefore, the baseline will be set with the first year of data available.

**Baseline:** 90 percent in 2004

**HK 2010 Target:** 100 percent

**Mid-Decade Status:** Same as baseline

![Figure 11.4 Percentage of Title X Clinics That Provide Postcoital Hormonal Contraception, Kentucky, 2004 (Source: PSRS)](image)

**Strategies to Achieve Objective:**

- Provide health department staff with ongoing education about emergency contraception
- Offer consumer information via new routes such as Nurse Hotline, etc.

11.5. (Developmental) Increase male involvement in pregnancy prevention and family planning as measured by the increase with which health providers provide outreach, education, or services to males. (See Revision)

11.5R. (REVISION) Increase male involvement in pregnancy prevention and family planning as measured by the increase with which health providers provide outreach, education, or services to males.
Reason for Revision: This objective was misclassified as developmental. Data to track this objective have always been available.

Data Source: Patient Services Reporting System (PSRS). This data system is specific to local health departments only and does not reflect services received in the private sector.

Baseline: 610 in 2000

HK 2010 Target: 915

Mid-Decade Status: 738 in 2004

![Graph showing number of men receiving service at family planning clinics, Kentucky, 2000-2004 (Source: PSRS)](image)

Strategies to Achieve Objective:

- Explore and monitor the level of federal funds available to involve males in family planning
- Seek additional funds to educate and promote male involvement
- Develop an educational program to provide responsible and comprehensive sexuality education that includes information about contraception aimed specifically at the male role in pregnancy prevention, including legal responsibilities of parenting
- Develop a public awareness campaign promoting the services offered

This objective is adapted from *Healthy People 2010*, based on the lack of male participation in Title X programs and the number of unintended pregnancies, as measured by out of wedlock births.
11.6. Reduce pregnancies among females ages 15-17 to no more than 45 per 1,000 adolescents. (See Revisions)

11.6R. (REVISION) Reduce pregnancies among females ages 15-17 to no more than 20 per 1,000 adolescents.

**Reason for Revision:** In the original objective, the target was set higher than the baseline. This was an error, and the revision includes a new target.

**Data Sources:** Kentucky Vital Statistics Surveillance System (Live Birth, Stillbirth, and Induced Terminations of Pregnancy Files) and Kentucky State Data Center, Urban Studies Institute, Population Estimates for years 2000-2004; Vital Statistics data for year 2004 is preliminary and numbers could change.

**Baseline:** 31.9 per 1,000 adolescents in 2000

**HK 2010 Target Setting Method:** 20 percent improvement on best rate in 2004.

**HK 2010 Target:** 20 per 1,000 adolescents

**Mid-Decade Status:** 25.8 per 1,000 adolescents in 2004

**Figure 11.6** Adolescent Pregnancy Rates for Females Age 15-17, Kentucky, 2000-2004 (Source: Kentucky Vital Statistics Surveillance System)

**Strategies to Achieve Objective:**

- Offer most effective family planning options to persons in need of family planning services
- Co-locate services with social programs to enhance accessibility
11.7. Increase by at least 10 percent the proportion of sexually active individuals, ages 15-19, who use barrier method contraception with or without hormonal contraception to prevent sexually transmitted disease and prevent pregnancy.

**Data Sources:** Youth Risk Behavior Surveillance System (YRBSS). The data includes those high school students who reported “Yes” to the question, “The last time you had sexual intercourse did you or your partner use a condom?” The YRBSS was also conducted in 2001, but the question was not the same.

**Baseline:** 62.8 percent in 2003

**HK 2010 Target:** 69.1 percent

**Mid-Decade Status:** Same as baseline

![Figure 11.7 Percentage of Teens, 15-19, Who Used Barrier Contraception at Last Sexual Intercourse, Kentucky, 2003 (Source: YRBSS)](image)

**Strategies to Achieve Objective:**

- Increase student education on prevention of sexually transmitted infections prior to the 10th grade
- Make anonymous condom distribution more accessible

11.8. (Developmental) Increase to 95 percent the proportion of public and private elementary, middle/junior and senior high schools that require instruction on human sexuality, pregnancy prevention, STD prevention, and HIV prevention that provide students with information and skills related to abstinence and contraceptive use. (See Revision)
11.8R. (REVISION) Increase by 10 percent the proportion of health education courses in public and private middle/junior and senior high schools that require instruction on human sexuality, pregnancy prevention, STD prevention, and HIV prevention.

This revision reflects how the data on health education are collected through the School Health Education Profiles (SHEP)

**Data Source:** SHEP. Only 2002 data are available.

<table>
<thead>
<tr>
<th>Baseline: in 2002</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy Prevention</td>
<td>82.9%</td>
<td>96.4%</td>
</tr>
<tr>
<td>HIV Prevention</td>
<td>97.3%</td>
<td>98.2%</td>
</tr>
<tr>
<td>Sexually Transmitted Disease</td>
<td>94.7%</td>
<td>98.2%</td>
</tr>
<tr>
<td>Human Sexuality</td>
<td>77.6%</td>
<td>92.0%</td>
</tr>
</tbody>
</table>

**HK 2010 Target Setting Method:** 10 percent improvement for a non-population based data source

<table>
<thead>
<tr>
<th>HK 2010 Target:</th>
<th>Middle School</th>
<th>High School</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy Prevention</td>
<td>91.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td>HIV Prevention</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Sexually Transmitted Disease</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Human Sexuality</td>
<td>85.4%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Mid-Decade Status:** See Baseline

**Strategies to Achieve Objective:**

- Increase the age appropriate level of knowledge of students concerning human sexuality and methods to prevent pregnancy and sexually transmitted diseases
- Increase the number of questions on the statewide KIRIS tests that relate to pregnancy and STD prevention
- Urge policy makers to require courses in human sexuality that are factually based and age appropriate at each level of elementary, middle, and high school
- Increase media attention to educate parents about the importance of communication with their children concerning sexuality issues before they become sexually active and to encourage education administrators to include health education on sexuality issues in their school’s curricula

**Terminology**
**Brown Bag Program:** Method of condom distribution in which condoms are available in brown bags at community sites for pick up by anyone without any identification required.

**Contraception:** The means of pregnancy prevention. Methods include permanent methods (i.e. male and female sterilization) and temporary methods (i.e. barrier, hormonal and behavioral).

**Family planning:** The process of establishing the preferred number and spacing of one’s children, selecting the means by which this is best achieved, and effectively using that means.

**“Highly effective contraceptives”:** Those methods of contraception which demonstrate the greatest level of success with typical use.

**Intended pregnancy:** A pregnancy that a woman states was wanted at the time of conception, irrespective of whether or not contraception was being used.

**Title X:** A grant program for family planning services offered through the Office of Population Affairs, enacted in 1970 by Congress as the Family Planning Services & Population Research Act.

**Unintended pregnancy:** A general term that includes pregnancies that a woman states were either mistimed or unwanted at the time of conception (and not at the time of birth).

**Mistimed conceptions:** Those that were wanted by the woman at some time, but which occurred sooner than wanted.

**Unwanted conceptions:** Those that occurred when the woman did not want any pregnancy then or in the future.

**Women at risk of unintended pregnancy:** Women who (1) have had sexual intercourse in the previous 3 months; (2) are not pregnant, seeking pregnancy, or postpartum (pregnancy ended within 2 previous months); and (3) are not sterile (surgically or nonsurgically).

**References**

- Kentucky Youth Risk Behavior Surveillance, 2003
- Behavior Risk Factor Surveillance System, 2000-2004
- Title X Family Planning Services Grantee profile
- Consensus Set of Health Status Indicators, Kentucky, 2000-2003
- Contraceptive Needs and Services, Alan Guttmacher Institute, 2002
• A Profile of Women's Health Status in Kentucky, June, 1999

Contributors

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• Tracey Jewell, MPH, Epidemiologist, Division of Adult and Child Health Improvement, Maternal and Child Health Branch, Department for Public Health
• Joy Hoskins, RN, Nurse Consultant, Women's Health Section Supervisor, Division of Adult and Child Health Improvement, Maternal and Child Health Branch, Department for Public Health
## 11. Family Planning – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Family Planning</th>
<th>Baseline (Year)</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status (Year)</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>11.1R. (Developmental) Increase to at least 87 percent the proportion of all pregnancies among women age 15-44 that are planned.</strong></td>
<td>85.1% (2000)</td>
<td>≥87% (2003)</td>
<td>85.7% (2003)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>11.2. Decrease to no more than 7 percent the percentage of women age 15-44 experiencing pregnancy despite use of a reversible contraceptive method.</strong></td>
<td>17.3% (2003)</td>
<td>≤7% (2003)</td>
<td>17.3% (2003)</td>
<td>N/A</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>11.3. Increase to at least 95 percent the proportion of all females aged 15-44 at risk of unintended pregnancy who use highly effective contraception.</strong></td>
<td>67.9% (2000)</td>
<td>≥95% (2002)</td>
<td>53.9% (2002)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td><strong>11.4. Increase to 100 percent the proportion of Title X family planning clinics that provide, either directly or through referral, postcoital hormonal contraception.</strong></td>
<td>90% (2004)</td>
<td>100% (2004)</td>
<td>90% (2004)</td>
<td>N/A</td>
<td>PSRS</td>
</tr>
<tr>
<td><strong>11.5R. Increase male involvement in pregnancy prevention and family planning as measured by the increase with which health providers provide outreach, education or services to males.</strong></td>
<td>610 (2000)</td>
<td>≥915 (2004)</td>
<td>738 (2004)</td>
<td>Yes</td>
<td>PSRS</td>
</tr>
<tr>
<td><strong>11.6 R. Reduce pregnancies among females ages 15-17 to no more than 20 per 1,000 adolescents.</strong></td>
<td>31.9/1,000 (2000)</td>
<td>≤20 / 1,000 (2003)</td>
<td>25.8/1,000 (2003)</td>
<td>Yes</td>
<td>Vital Stats.</td>
</tr>
<tr>
<td><strong>11.7. Increase by at least 10 percent the proportion of sexually active individuals, ages 15-19, who use barrier method contraception with or without hormonal contraception to prevent sexually transmitted disease and prevent pregnancy.</strong></td>
<td>62.8% (2003)</td>
<td>≥69.1% (2003)</td>
<td>62.8% (2003)</td>
<td>N/A</td>
<td>YRBSS</td>
</tr>
<tr>
<td><strong>11.8R. Increase by 10 percent the proportion of health education courses in public and private middle/junior and senior high schools that require instruction on human sexuality, pregnancy prevention, STD prevention, and HIV prevention.</strong></td>
<td>(2002)</td>
<td>(2002)</td>
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</table>

### Middle School

<table>
<thead>
<tr>
<th>Subject</th>
<th>Baseline (Year)</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status (Year)</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pregnancy Prevention</td>
<td>82.9%</td>
<td>≥91.2%</td>
<td>82.9%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>HIV Prevention</td>
<td>97.3%</td>
<td>100.0%</td>
<td>97.3%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>STD Prevention</td>
<td>94.7%</td>
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<td>N/A</td>
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<tr>
<td>Human Sexuality</td>
<td>77.6%</td>
<td>≥85.4%</td>
<td>77.6%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>High School</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>---------</td>
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<td></td>
</tr>
<tr>
<td>Pregnancy Prevention</td>
<td>96.4%</td>
<td>100.0%</td>
<td>96.4%</td>
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<tr>
<td>HIV Prevention</td>
<td>98.2%</td>
<td>100.0%</td>
<td>98.2%</td>
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<tr>
<td>STD Prevention</td>
<td>98.2%</td>
<td>100.0%</td>
<td>98.2%</td>
<td>N/A</td>
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</tr>
<tr>
<td>Human Sexuality</td>
<td>92.0%</td>
<td>100.0%</td>
<td>92.0%</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective
N/A = Only baseline data are available. Not able to determine progress at this time.
12. Maternal, Infant, and Child Health

Goal

Improve maternal health and pregnancy outcomes and reduce the rate of disability in infants, thereby improving the health and well being of women, infants, children, and families in the Commonwealth of Kentucky.

Overview

Improving the health of mothers and infants is a national as well as a state priority. Infant mortality is an important measure of a state’s health and an indicator of health status and social well being. In addition, the disparity in infant mortality rates between whites and African Americans and other specific ethnic groups persists.

Infant mortality is not the only measure of the health of infants. This chapter addresses a range of indicators of maternal, infant, and child health, including those affecting women of childbearing age, pregnant and postpartum women.

Summary of Progress

Great strides have been made toward achieving the 2010 objectives. The target was surpassed for objective 12.16 which relates to decreasing neural tube defects to 12 per 10,000 births by increasing the proportion of women of childbearing age taking daily folic acid supplements. The mid-decade status of neural tube defects is 5.3 per 10,000 births (more than a 50 percent reduction below the 2010 Objective), while the proportion of women of childbearing age taking daily folic acid supplements is 45.6 percent (a 9.4 percent increase from 2000). The 2010 target was also surpassed by 34 percent for Objective 12.20 which relates to increasing the number of pregnant alcohol and drug abusers admitted to publicly funded substance abuse treatment programs. Progress has been made towards meeting the proportion of women who breastfeed their infants at hospital discharge from 54.2% to 56.5%, and a steady increase is being made in the WIC population who have breastfed from 26% in 2001 to 30.1% in 2004. Progress is also being made toward increasing the percent of newborns screened for hearing disorders before discharge, and in decreasing the death rate for children ages 5-14 in the state. The infant mortality rate has declined to 6.5 per 1,000 live births, down from 7.2 per 1,000 in 2002, and the perinatal mortality rate has declined considerably since 2001. Although the maternal mortality rate increased sharply in 2002, the rate has continued to decline since, and is currently at 7.7 per 100,000 live births. For areas in which targets are not being met, interventions and strategies have been put in place to improve the likelihood of achieving our 2010 Objectives.

Progress toward Achieving Each HK 2010 Objective
12.1. To reduce infant mortality to no more than 6 per 1,000 live births.

**Data Source:** Kentucky Vital Statistics Files, Live birth and Death Certificate files; 2004 data is preliminary and numbers could change.

**Baseline:** 6.7 per 1,000 live births in 2000

**HK 2010 Target:** 6.0 per 1,000

**Mid-Decade Status:** 6.5 per 1,000 live births in 2004

![Graph showing infant mortality rate from 2000 to 2005.](image)

**Figure 12.1** Infant Mortality Rate per 1,000 Live Births, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

**Strategies to Achieve Objective:**

- Provide preconception health counseling to all women of childbearing age with the goals of planned pregnancies, early entry into prenatal care, and access to genetic counseling and referrals
- Promote continuing educational opportunities to parents and families, health professionals, child-care providers, and others on the importance of a safe sleeping environment for infants under one year of age, related to Sudden Infant Death Syndrome (SIDS)
- Promote funding and education so that all health professionals, paraprofessionals, child care providers, and parents can be trained in CPR
- Educate the public on the adverse effects of alcohol, tobacco, and other drugs (ATOD)

12.2. Reduce the infant mortality rate due to birth defects to 1.2 per 1,000 live births.
Data Source: Kentucky Vital Statistics files, Live Birth and Death certificate files; 2004 data is preliminary and numbers could change.

Baseline: 1.4 per 1,000 live births in 2000

HK 2010 Target: 1.2 per 1,000 live births

Mid-Decade Status: 1.1 per 1,000 live births in 2004

Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth

Strategies to Achieve Objective:

- Promote preconception care to all women of childbearing age during routine primary care visits to help identify individual risk factors and educate women on healthy lifestyles prior to pregnancy
- Assist pregnant women in early entry to prenatal care and promote continuation of care throughout the pregnancy
- Educate the public on the adverse effects of alcohol and diabetes in women of childbearing age and women who are already pregnant
- Support the Department for Public Health, March of Dimes, and the Kentucky Spina Bifida Association, through a statewide campaign (Kentucky Folic Acid Partnership) to decrease the incidence of neural tube defects (NTD) and premature births

12.3. Reduce the Sudden Infant Death Syndrome (SIDS) mortality rate to 0.3 per 1,000 live births.

Data Sources: Kentucky Vital Statistics files, Live Birth and Death certificate files; 2004 data is preliminary and numbers could change.
Baseline: 0.6 per 1,000 live births in 2000

HK 2010 Target: 0.3 per 1,000 live births

Mid-Decade Status: 0.9 per 1,000 live births

![Graph showing infant mortality rate due to SIDS from 2000 to 2005.]

**Figure 12.3** Infant Mortality Rate Due to SIDS, Kentucky, 2000-2004 (Source: Vital Records Surveillance System)

**Data Needs:** Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth.

**Strategies to Achieve Objective:**

- Increase public awareness about methods and practices to reduce infant deaths in the sleeping environment
- Increase awareness in Spanish population and other language speaking populations about methods and practices to reduce infant deaths
- Assure professional education through the provision of prevention information to reduce infant death associated with SIDS
- Develop an integrated electronic data entry system to track child deaths

**12.4. Reduce the rate of child mortality to 20 per 100,000 children ages 1-4 and 17 per 100,000 children ages 5-14.**

**Data Source:** Kentucky Vital Statistics files, death certificate files, and population estimates for Kentucky as provided by the Kentucky State Data Center, University of Louisville; 2004 data is preliminary and numbers could change.
Baseline: Children 1-4: 33.8 per 100,000 in 2000
Children 5-14: 17.5 per 100,000 in 2000

HK 2010 Target: Children 1-4: 20 per 100,000
Children 5-14: 17 per 100,000

Mid-Decade Status: Children 1-4: 33.9 per 100,000 in 2004
Children 5-14: 17 per 100,000 in 2004

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<td>Mortality Rate Children Aged 5-14</td>
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Strategies to Achieve Objective:

- Develop an integrated electronic data system for evaluating all child death causes
- Publish an annual Kentucky Child Fatality Review Report, including the identification of disparities regarding age, race and sex distributions for children under age 15 and promote child death prevention systems
- Provide professional education on prevention methods and practices to reduce the major causes of child deaths under age 15
- Increase awareness in the Hispanic and other minority populations about methods and practices to reduce the major child death causes under age 15

12.5. Reduce the fetal death rate to no more than 4 per 1,000 live births plus fetal deaths.

Data Sources: Kentucky Vital Statistics files, Fetal Death, and Live Birth Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 6.4 per 1,000 live births plus fetal deaths in 2000
HK 2010 Target: 4 per 1,000 live births plus fetal deaths
Mid-Decade Status: 5.7 per 1,000 live births plus fetal deaths in 2004

Strategies to Achieve Objective:

- Preconception counseling for all women of childbearing age to decrease risk factors prior to conception, including identification of substance abusers, those with chronic medical conditions, women who may be victims of domestic violence, and genetic risk factors
- Promote early and consistent prenatal care by increasing access to include non-traditional sites for pregnancy testing and prenatal care
- Provide access to prenatal care, continuation of prenatal care, and appropriate referral services regardless of income status

12.6. Reduce the perinatal mortality rate to no more than 4.5 per 1,000 live births plus fetal deaths.

Data Sources: Kentucky Vital Statistics files, Death, Fetal Death, and Live Birth Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 9.1 per 1,000 live births plus fetal deaths in 2000

HK 2010 Target: 4.5 per 1,000

Mid-Decade Status: 7.5 per 1,000 live births plus fetal deaths in 2004
Data Needs: Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth

Strategies to Achieve Objective:

- Facilitate early entry into prenatal care by coordinating efforts of health care providers
- Promote both professional and para-professional home visits with emphasis placed on high risk groups, including the use of neighborhood “mentors”
- Focus community education on groups at risk for poor pregnancy outcomes.

12.7. Reduce the maternal mortality rate to no more than 3.3 per 100,000 live births.

Data Sources: Kentucky Vital Statistics files, Live Birth and Death Certificate files; 2004 data is preliminary and numbers could change.

Baseline: 3.6 per 100,000 live births in 2000

HK 2010 Target: 3.3 per 100,000 live births

Mid-Decade Status: 7.7 per 100,000 live births in 2004

Strategies to Achieve Objective:

- Universal routine preconception and prenatal screening for depression, substance abuse, and domestic violence with appropriate referrals
- Provide access to early entry into prenatal care regardless of income status
- Promote continuing education of all health professionals to enhance their knowledge of complications of pregnancy with early identification and acceptable medical management and referrals when indicated
- Continued support of the Maternal Mortality Review Committee in investigation of all maternal deaths and pregnancy associated maternal deaths in Kentucky. The Committee identifies major contributing factors in maternal deaths and develops appropriate interventions for education of health care professionals and the public.

12.8. (Developmental) Increase the proportion of women’s health care providers who routinely provide preconception counseling for women of childbearing age without a permanent method of contraception. (See Revision)

12.8R. (REVISION) Increase to 25 percent the percentage of women of childbearing age who routinely receive preconception counseling in local health departments.

Reason for Revision: This objective has been revised to reflect services received by women of childbearing age provided by local health departments rather than all health care providers since data collected will
only reflect services received in local health departments. Information regarding a permanent method of contraception cannot be obtained and therefore was eliminated from the objective.

**Data Source:** Patient Services Reporting System (PSRS) for local health departments.

**Baseline:** 13.3 percent in 2000

**HK 2010 Target:** 25 percent

**Mid-Decade Status:** 11.1 percent in 2004

![Graph](image-url)

**Figure 12.7** Percentage of Women Receiving Preconception Counseling at Local Health Departments, Kentucky, 2000-2004 (Source: PSRS)

**Data Needs:** Continued availability of data from the Patient Services Reporting System

**Strategies to Achieve Objective:**

- Assure preconception services and referrals to women of childbearing age regardless of income status
- Target hard to reach populations through outreach, education and specialized services
- Expand clinic hours and nontraditional family planning, exploring opportunities to provide services for hard to reach populations
- Develop a public awareness campaign promoting preconception services offered through the health departments
12.9. Increase to at least 90 percent the proportion of all pregnant women who begin prenatal care in the first trimester of pregnancy.

**Data Sources:** Kentucky Vital Statistics files, Live Birth Certificate files; 2004 data are preliminary and numbers could change.

**Baseline:** 85.7 percent in 2000

**HK 2010 Target:** 90 percent

**Mid-Decade Status:** 86.2 percent in 2004

![Bar chart showing percentage of infants born to women receiving prenatal care beginning in the first trimester, Kentucky, 2000-2004](image)

**Data Needs:** Continued maintenance of the Vital Statistics System of Live Births and Deaths for the Commonwealth.

**Strategies to Achieve Objective:**

- Assist all pregnant women to access early prenatal services, and assist with the continuation of prenatal care throughout their pregnancy
- Provide outreach to women of childbearing age and pregnant women about the importance of early entry into prenatal care and target disparate populations
- Continue prenatal funding for uninsured prenatal clients
- Continue to build strong partnerships and contract services with University and private physicians to enable women of low income to access prenatal services
12.10. Increase to at least 95 percent the proportion of all live born infants whose mothers received adequate prenatal care based on ACOG guidelines and the Kessner Index. (See Revision)

12.10R. (REVISION) Increase to at least 95 percent the proportion of all live born infants whose mothers received adequate prenatal care based on the Kotelchuck Index.

**Reason for Revision:** In the original objective, the method of choice for determining adequate prenatal care was the Kessner Index. This Index has recently been replaced with a newer method, the Kotelchuck Index, which is now considered the standard measure of choice in the maternal and child health field for determining adequacy of prenatal care.


**Baseline:** 80.6 percent in 2000

**HK 2010 Target:** 95 percent

**Mid-Decade Status:** 82 percent in 2004

**Figure 12.9** Percentage of Pregnant Women Who Received Adequate Prenatal Care Based on the Kotelchuck Index, Kentucky, 2000-2004 (Source: Vital Statistics Surveillance System)

**Data Needs:** Continued maintenance of the Vital Statistics System of Live Births for the Commonwealth.

**Strategies to Achieve Objective:**
• Assure preconception services and referrals to women of childbearing age regardless of income status
• Target hard to reach populations through outreach, education and specialized services
• Expand clinic hours and nontraditional family planning, exploring opportunities to provide services for hard to reach populations
• Develop a public awareness campaign promoting preconception services offered through local health departments

12.11. (Developmental) **Increase to at least 65 percent the proportion of women who receive a postpartum visit within 42 days after delivery.** (DELETED)

**Reason for Deletion:** This objective was deleted due to lack of a data source for appropriate monitoring.

12.12. **Reduce the incidence of low birth weight to no more than 5 percent, very low birth weight to no more than 1 percent, and reduce the incidence of premature birth to no more than 7.6 percent of all live births.**

**Data Sources:** Kentucky Vital Statistics files, Live Birth Certificate files; 2004 data are preliminary and numbers could change.

**Baseline:**
- Low Birth Weight: 8.2 percent in 2000
- Very Low Birth Weight: 1.5 percent in 2000
- Preterm Birth: 12.7 percent in 2000

**HK 2010 Target:**
- Low Birth Weight: 5 percent
- Very Low Birth Weight: 1 percent
- Preterm Birth: 7.6 percent

**Mid-Decade Status:**
- Low Birth Weight: 8.4 percent in 2004
- Very Low Birth Weight: 1.5 percent in 2004
- Preterm Birth: 15.8 percent in 2004

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<td>Very Low Birth</td>
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<td>Preterm Birth</td>
<td>12.7%</td>
<td>13.3%</td>
<td>13.6%</td>
<td>14.1%</td>
<td>15.8%</td>
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**Data Needs:** Continued maintenance of the Vital Statistics System of Live Births for the Commonwealth

**Strategies to Achieve Objective:**
• Focus prenatal community-wide education campaigns on high risk pregnant women including women abusing substances, victims of domestic violence, teens, older mothers, women with inadequate nutrition, and those with chronic medical conditions and on disparate populations at high risk including African Americans and immigrants
• Provide preconception health counseling to all women of childbearing age utilizing community partnerships
• Provide or facilitate oral health education, screening, and treatment for pregnant women

12.13. Increase to at least 90 percent the proportion of very low birth weight infants (1500 grams or less) born at facilities equipped for high-risk deliveries and neonates.

Data Sources: Kentucky Vital Statistics files, Live Birth Certificate files; 2004 data are preliminary and numbers could change

Baseline: 51.7 percent in 2000

HK 2010 Target: 90 percent

Mid-Decade Status: 52 percent in 2004

Data Needs: Continued maintenance of the Vital Statistics System of Live Births for the Commonwealth

Strategies to Achieve Objective:
• Promote the incorporation of routine prenatal education of all expectant parents on the signs and symptoms of preterm labor and the protocol to follow
• Promote access to early prenatal care and increase referrals for complications to qualified professionals and facilities specializing in high-risk pregnancy conditions
• Educate expectant parents on the necessity and improved outcomes of pre-delivery transfer of mothers with very low birth weight babies to a facility equipped for high risk deliveries and neonates
• Enhance continuing education of all health care providers and facilities that provide maternity services that are not equipped for high risk deliveries and neonates. Special emphasis to be provided on the importance of appropriate timing of pre-delivery maternal transfer, thereby avoiding emergency transfer

12.14. (Developmental) **Increase the proportion of women who achieve recommended weight gain during pregnancy. (DELETED)**

**Reason for Deletion:** This objective was deleted due to lack of a data source for appropriate monitoring

12.15. (Developmental) **Increase to at least 75 percent the proportion of mothers who breastfeed their babies in the early postpartum period; to at least 50 percent the proportion who continue breastfeeding until their babies are 6 months old; and to at least 25 percent the proportion who breastfeed until their infants are 1 year old. (See Revision)**

12.15R. (REVISION) **Increase to at least 75 percent the proportion of mothers who breastfeed their babies at hospital discharge; to at least 50 percent the proportion who continue breastfeeding until their babies are 6 months old; and increase among the WIC population to at least 50 percent the proportion of mothers who have ever breastfed their babies; to at least 25 percent the proportion who are currently breastfeeding their babies.**

**Reason for Revision:** This objective was revised since statewide data are not available on women who breastfeed their infants up to one year of age; this revision also reflects data that are available on the WIC population for women who have ever breastfed and those currently breastfeeding.

**Data Source:** Data on the state of Kentucky; Mother’s Survey, Ross Products Division, Abbott Laboratories, Inc. 2000-2002; data from this survey are not yet available for 2003 and 2004. Data for the WIC population; WIC Breastfeeding Report, 2001-2004
Baseline: Kentucky; Hospital Discharge 54.2 percent in 2000  
Kentucky; 6 months of age 23.9 percent in 2000  
WIC; Ever breastfeed 26 percent in 2001  
WIC; Currently breastfeed 8.8 percent in 2001

HK 2010 Target: Kentucky; Hospital Discharge 75 percent  
Kentucky; 6 months of age 50 percent  
WIC; Ever breastfeed 50 percent  
WIC; Currently breastfeed 25 percent

Mid-Decade Status: Kentucky; Hospital Discharge 56.5 percent in 2002  
Kentucky; 6 months of age 25.3 percent in 2002  
WIC; Ever breastfeed 30.1 percent in 2004  
WIC; Currently breastfeed 12.7 percent in 2004

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<td>Breastfeeding at Hospital Discharge</td>
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<td>Breastfeeding at 6 Months of Age</td>
<td>23.9%</td>
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<td>WIC Ever Breastfeed</td>
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<td>26%</td>
<td>27.8%</td>
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<td>WIC Currently Breastfeed</td>
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<td>8.8%</td>
<td>9.6%</td>
<td>10.3%</td>
<td>12.7%</td>
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Data Needs: A more timely data collection system is needed that captures breastfeeding information on all infants born in Kentucky. With the revision of the Birth Certificate, beginning in 2004 and forward, breastfeeding information at time of discharge will be collected on all Birth Certificates.

Strategies to Achieve Objective:

- Provide education and support to mothers before and after delivery
- Improve information given to pregnant and breastfeeding women through continuing education offerings for professional staff
- Develop and maintain a Breastfeeding Peer Counselor Program through the USDA
- Continue to increase the number of available lactation consultants in communities

12.16. Reduce the incidence of Neural Tube Defects (Spina Bifida and Anencephaly) to 12 per 10,000 births by increasing to at least 50 percent the proportion of women of childbearing age who take a daily vitamin that contains 0.4 mg of folic acid.
**Data Sources:** Kentucky Birth Surveillance Registry; Kentucky Vital Statistics Live Birth Certificate files, and the Kentucky Behavioral Risk Factor Surveillance System; 2004 data are preliminary and numbers could change.

**Baseline:**
Neural Tube Defects: 8.7 per 10,000 births in 2000
Daily Folic Acid Consumption: 41.7% in 2000

**HK 2010 Target:**
Neural Tube Defects: 12 per 10,000 births
Daily Folic Acid Consumption: 50%

**Mid-Decade Status:**
Neural Tube Defects: 5.3 per 10,000 births in 2004
Daily Folic Acid Consumption: 45.6% in 2004

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<td>Daily Folic Acid Use</td>
<td>41.7%</td>
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**Data Needs:** The folic acid module was not included on the 2003 BRFSS Survey and therefore no data is available on daily folic acid consumption for year 2003.

**Strategies to Achieve Objective:**

- Provide folic acid educational services/materials to health professionals, community members and the media through the activities of the Kentucky Folic Acid Partnership
- Provide folic acid supplements to all eligible women in local health departments through the Folic Acid Counseling and Supplementation Program
- Promote preconception genetic counseling for all women of childbearing age and especially for those women identified as having an increased risk for a pregnancy affected by a neural tube defect (i.e. previously affected pregnancy, medication use, diabetes)
- Educate the general public about all the benefits of folic acid to promote increased consumption

**12.17. Increase to at least 50 percent the proportion of pregnant smokers who abstain from tobacco use beginning early in pregnancy and maintain abstinence for the remainder of their pregnancy, following delivery, and through 6 weeks postpartum. (See Revision)**
12.17R. (REVISION) Increase to at least 20 percent the proportion of pregnant smokers who abstain from tobacco use beginning in the first trimester of pregnancy and maintain abstinence for the remainder of their pregnancy.

Reason for Revision: This revision reflects the change in the live birth certificate to incorporate a revised question on smoking history prior to pregnancy and for each trimester of pregnancy.

Data Source: Vital Statistics Live Birth Certificate files, 2004

Baseline: 11.7 percent in 2004

HK 2010 Target: 20 percent

Mid-Decade Status: 11.7 percent in 2004

Data Needs: Data for this objective is only available for year 2004 due to a revision in how the question on smoking status is being asked. Beginning in 2004, this question was revised to include smoking status prior to pregnancy and smoking status during each trimester of pregnancy. This question will continue to be asked in the same manner in the future. Therefore, the baseline for this objective serves as the mid-decade status.

Strategies to Achieve Objective:

- Implementation of a Medicaid funded smoking cessation and counseling program for pregnant women, which includes individual counseling and nicotine replacement therapy
• Educate the public on the adverse effects of smoking and second hand smoke on pregnant women and children and available smoking cessation therapies
• Incorporate a comprehensive program for health care providers to help them counsel pregnant women and mothers to stop smoking. For example, Make Yours A Fresh Start Family is a program based on the Agency for Health Care Policy and Research (AHCPR) Clinical Practice Guidelines on Smoking Cessation
• Provide regionally located intensive training workshops for health care providers on smoking cessation and monitoring specifically for pregnant women

12.18. Reduce the incidence of Fetal Alcohol Syndrome (FAS) by increasing abstinence from alcohol use by pregnant women. (DELETED)

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring.

12.19. (Developmental) Reduce the incidence of birth defects caused by prenatal exposures to prescription medications with known teratogenic effects, such as Acutane and anti-seizure medications. (DELETED)

Reason for Deletion: This objective was deleted due to lack of a data source for appropriate monitoring.

12.20. Increase by 50 percent the number of pregnant alcohol and/or drug abusers who are admitted to publicly funded substance abuse treatment programs.

Data Sources: Division of Mental Health and Substance Abuse

Baseline: 276 in 2000

HK 2010 Target: 414

Mid-Decade Status: 630 in 2004
**Data Needs:** An annual survey of pregnant women in Kentucky like PRAMS is needed for continued monitoring of pregnant women and substance abuse.

**Strategies to Achieve Objective:**

- Counsel all women obtaining a pregnancy test on the effects of alcohol, tobacco, and other drugs (ATOD) and available resources
- Promote continuing education of all health care professionals on needed screening skills and appropriate referrals for substance abuse
- Increase collaboration between the local health departments and the Community Mental Health Centers through the establishment of linkage agreements to increase identification and referral of pregnant women requiring substance abuse prevention or treatment services
- Provide sufficient funding for substance abuse prevention and treatment services

12.21. Ensure that 100 percent of all newborns are tested for phenylketonuria (PKU), congenital hypothyroidism, galactosemia and hemoglobinopathies. (See Revisions)

12.21R. (REVISION) Ensure that 96 percent of all newborns are tested for phenylketonuria (PKU), congenital hypothyroidism, galactosemia and hemoglobinopathies.

**Reason for Revision:** The goal for this objective was changed due to the fact that screening records for Kentucky babies born out of state cannot be obtained and therefore it cannot be determined if 100 percent of Kentucky’s babies have been screened.
**Data Sources:** Kentucky Newborn Screening Database, and Vital Statistics Live Birth Certificate files 2001-2003

**Baseline:** 94.5 percent in 2001

**HK 2010 Target:** 96 percent

**Mid-Decade Status:** 93.2 percent in 2003

![Graph showing percentage of newborns tested for PKU, Congenital Hypothyroidism, Galactosemia, and Hemoglobinopathies, Kentucky, 2001-2003](image)

**Data Needs:** An integrated database that links vital records with newborn screening records is needed to assure accuracy of screening rates. Data for 2004 are currently not available.

**Strategies to Achieve Objective:**

- Develop integrated database linking to vital birth records for identification of infants not screened
- Educate hospitals, parents, and providers on importance of newborn screening
- Develop hospital report cards on compliance with screening to identify problems
- Modify regulation to require birthing hospitals to establish protocol for assuring every newborn receives screening

**12.22. (Developmental) Increase the proportion of babies aged 18 months and younger who receive recommended primary care services at the appropriate intervals.** (DELETED)

**Reason for Deletion:** This objective was deleted due to lack of a data source for appropriate monitoring.
12.23. Reduce the prevalence and limit the consequences of serious developmental disabilities arising from events in the prenatal and infant periods. (See Revision)

12.23R.(REVISION) Reduce the number of children with serious developmental disabilities, such as Cerebral Palsy, among children aged 0-5 years old; and Hearing Impairment, Visual Impairment, and Developmental Delay among children aged 3-5 years old.

Reason for Revision: This revision reflects a more accurate application of current data available for tracking developmental disabilities.

Data Source: Kentucky Birth Surveillance Registry and Kentucky Department of Education, Division of Exceptional Children Services; 2003 and 2004 data is currently not available for Cerebral Palsy.

Baseline: Cerebral Palsy, 39 in 2000
Hearing Impairment, 765 in 2000
Visual Impairment, 494 in 2000
Developmental Delay, 6,982 in 2000

HK 2010 Target: Cerebral Palsy, 21
Hearing Impairment, 671
Visual Impairment, 437
Developmental Delay, 6,633

Mid-Decade Status: Cerebral Palsy, 22 in 2002
Hearing Impairment, 706 in 2004
Visual Impairment, 460 in 2004
Developmental Delay, 9,808 in 2004

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Data Needs: A uniform and consistent database for capturing information regarding developmental disabilities is needed as well as standard definitions for each disability.

Strategies to Achieve Objective:

- Increase the reporting sources for the Kentucky Birth Surveillance Registry (KBSR) to improve the data quality for cerebral palsy and other conditions that may lead to developmental delay.
• Assure that women with high-risk pregnancies have access to health care providers who are qualified to manage high-risk pregnancies and deliveries

• Promote the First Steps Program in which anyone, including parents, may make a referral to one of the fifteen (15) Point of Entry offices to refer a child they suspect may be delayed. These children are screened to determine if they have a significant delay in one or more of the following skill areas: Communication, Mobility, Cognitive, Social/Emotional, or Adaptive

• Promote early and comprehensive prenatal, postpartum and infant assessment and intervention through the HANDS program

12.24. To increase to 100 percent the number of newborns who are screened for hearing disorders and when indicated, receive appropriate diagnosis and intervention by 6 months of age. (See Revision)

12.24R. (REVISION) Increase to 100 percent the number of newborns who are screened for hearing disorders.

Reason for Revision: The database containing information on those children with hearing disorders is not yet ready for analysis of interventions.

Data Sources: Kentucky Universal Newborn Hearing Screening Program (UNHS). This program was implemented January 1, 2001; therefore, information is unavailable prior to that date. Kentucky birthing hospitals with 40+ births per year are required to submit hearing screening reports to UNHS. (Data provided includes only those hospitals with 40+ births per year.)

Baseline: 99.2 percent in 2001

HK 2010 Target: 100 percent

Mid-Decade Status: 99.4 percent in 2004
**Data Needs:** Data from hospitals not covered under the UNHS program

**Strategies to Achieve Objective:**

- Continued maintenance and implementation of the Universal Newborn Hearing Screening program in the state
- Expand the mandate (regulation) covering the Universal Newborn Hearing Screening program to include all birthing hospitals in the state of Kentucky regardless of number of births per year

**References**

- Kentucky Youth Risk Behavior Surveillance Survey, 2003
- Behavioral Risk Factor Surveillance System, 2000-2004
- Title X Family Planning Services Grantee profile
- Consensus Set of Health Status Indicators, Kentucky, 2000-2003
- Contraceptive Needs and Services, Alan Guttmacher Institute, 2002

**Contributors**

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• Marcia Burklow, MSPH, Program Administrator, Child Fatality Review and Injury Prevention, Division of Adult and Child Health Improvement, Maternal and Child Health Branch, Department for Public Health
### 12. Maternal, Infant, and Child Health – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Maternal, Infant, and Child Health</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.1. Reduce infant mortality to no more than 6/1,000 live births.</td>
<td>6.7/1,000 (2000)</td>
<td>≤6/1,000</td>
<td>6.5/1,000 (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.2. Reduce the infant mortality rate due to birth defects to 1.2/1,000 live births.</td>
<td>1.4/1,000 (2000)</td>
<td>≤1.2/1,000</td>
<td>1.1/1,000 (2004)</td>
<td>Target Achieved</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.3. Reduce the Sudden Infant Death Syndrome (SIDS) mortality rate to 0.3/1,000 live births.</td>
<td>0.6/1,000 (2000)</td>
<td>≤0.3/1,000</td>
<td>0.9/1,000 (2004)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.4. Reduce the rate of child mortality to a) 20/100,000 children ages 1-4 and b) 17/100,000 children ages 5-14.</td>
<td>a)33.8/100,000 (2000)</td>
<td>≤20/100,000</td>
<td>33.9/100,000 (2004)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td></td>
<td>b)17/100,000 (2000)</td>
<td>≤17/100,000</td>
<td>17/100,000 (2004)</td>
<td>Target Achieved</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.5. Reduce the fetal death rate to no more than 4/1,000 live births plus fetal deaths.</td>
<td>6.4/1,000 (2000)</td>
<td>≤4/1,000</td>
<td>5.7/1,000 (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.6. Reduce the perinatal mortality rate to no more than 4.5/1,000 live births plus fetal deaths.</td>
<td>9.1/1,000 (2000)</td>
<td>≤4.5/1,000</td>
<td>7.5/1,000 (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.7. Reduce the maternal mortality rate to no more than 3.3/100,000 live births.</td>
<td>3.6/100,000 (2000)</td>
<td>≤3.3/100,000</td>
<td>7.7/100,000 (2004)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.8R. Increase to 25 percent the percentage of women of childbearing age who routinely receive preconception counseling in the local health departments.</td>
<td>13.3% (2000)</td>
<td>≥25%</td>
<td>11.1% (2004)</td>
<td>No</td>
<td>PSRS</td>
</tr>
<tr>
<td>12.9. Increase to at least 90 percent the proportion of all pregnant women who begin prenatal care in the first trimester of pregnancy.</td>
<td>85.7% (2000)</td>
<td>≥90%</td>
<td>86.2% (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.10. Increase to at least 95 percent the proportion of all live born infants whose mothers received adequate prenatal care based on the Kotelchuck Index.</td>
<td>80.6% (2000)</td>
<td>≥95%</td>
<td>82% (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.11. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.12. Reduce the incidence of a) low birth weight to no more than 5 percent, b) very low birth weight to no more than 1 percent and reduce the incidence of c) premature birth to no more than 7.6 percent of all live births.</td>
<td>a) 8.2% (2000)</td>
<td>≤5%</td>
<td>8.4% (2004)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td></td>
<td>b) 1.5% (2000)</td>
<td>≤1%</td>
<td>1.5% (2004)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td></td>
<td>c) 12.7% (2000)</td>
<td>≤7.6%</td>
<td>15.8% (2004)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>12.13. Increase to at least 90 percent the proportion of very low birth weight infants (&lt;1500 grams) born at facilities equipped for high-risk deliveries and neonates.</td>
<td>51.7% (2000)</td>
<td>≥90%</td>
<td>52% (2004)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
</tbody>
</table>
## Summary of Objectives for Maternal, Infant, and Child Health

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.14. (DELETED)</td>
<td></td>
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</tr>
<tr>
<td>12.15R. Increase to at least 75 percent the proportion of mothers who breastfeed their babies at hospital discharge; to at least 50 percent the proportion who continue breastfeeding until their babies are 6 months old; and increase among the WIC population to at least 50 percent the proportion of mothers who have ever breastfed their babies; to at least 25 percent the proportion who are currently breastfeeding their babies.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kentucky</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital discharge</td>
<td>54.2% (2000)</td>
<td>≥75%</td>
<td>56.5% (2002)</td>
<td>Yes</td>
<td>Ross Survey</td>
</tr>
<tr>
<td>6 months of age</td>
<td>23.9% (2000)</td>
<td>≥50%</td>
<td>25.3% (2002)</td>
<td>Yes</td>
<td>Ross Survey</td>
</tr>
<tr>
<td>WIC Population</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ever breastfed</td>
<td>26% (2001)</td>
<td>≥50%</td>
<td>30.1% (2004)</td>
<td>Yes</td>
<td>WIC</td>
</tr>
<tr>
<td>Currently breastfeed</td>
<td>8.8% (2001)</td>
<td>≥25%</td>
<td>12.7% (2004)</td>
<td>Yes</td>
<td>WIC</td>
</tr>
<tr>
<td>12.16. Reduce the incidence of Neural Tube Defects (Spina Bifida and Anencephaly) to 12/10,000 births by increasing to at least 50% the proportion of women of childbearing age who take a daily vitamin that contains 0.4mg of folic acid.</td>
<td>8.7/10,000 (2000)</td>
<td>≤12/10,000</td>
<td>5.3/10,000 (2004)</td>
<td>Target Achieved</td>
<td>KBSR</td>
</tr>
<tr>
<td></td>
<td>41.7% (2000)</td>
<td>≥50%</td>
<td>45.6% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>12.17R. Increase to at least 20 percent the proportion of pregnant smokers who abstain from tobacco use beginning in the first trimester of pregnancy and maintain abstinence for the remainder of their pregnancy.</td>
<td>11.7% (2004)</td>
<td>≥20%</td>
<td>11.7% (2004)</td>
<td>N/A</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Preliminary Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.18. – 12.19. (DELETED)</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>12.20. Increase by 50 percent the number of pregnant alcohol and/or drug abusers who are admitted to publicly funded substance abuse treatment programs.</td>
<td>276 (2000)</td>
<td>≥414</td>
<td>630 (2004)</td>
<td>Target Achieved</td>
<td>MHMR</td>
</tr>
<tr>
<td>12.21R. Ensure that 96 percent of all newborns are tested for phenylketonuria (PKU), congenital hypothyroidism, galactosemia, and hemoglobinopathies.</td>
<td>94.5% (2001)</td>
<td>≥96%</td>
<td>93.2% (2003)</td>
<td>No</td>
<td>NBS &amp; Vital Statistics</td>
</tr>
<tr>
<td>12.22. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Objective</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>-----------</td>
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</tr>
<tr>
<td>12.23R. Reduce the number of children with serious developmental disabilities such as Cerebral Palsy among children aged 0-5 years old and Hearing Impairment, Visual Impairment, and Developmental Delay among children aged 3-8 years old.</td>
<td>≤21 (2000)</td>
<td>22 (2002)</td>
<td>Yes</td>
<td>KBSR</td>
<td></td>
</tr>
<tr>
<td>12.24. Increase to 100 percent the number of newborns who are screened for hearing disorders.</td>
<td>99.2% (2001)</td>
<td>100% (2002)</td>
<td>Yes</td>
<td>UNHS</td>
<td></td>
</tr>
</tbody>
</table>

**R** = Revised objective

**N/A** = Only baseline data are available. Not able to determine progress at this time.
13. Medical Product Safety

Goal

Ensure the safest and most effective use of medical products.

Overview

Over the last two to three decades, several federal programs and initiatives have been developed to assure the safe and effective use of medical products. Many states including Kentucky have implemented programs designed to complement or enhance these federal initiatives. For example, in 1998, Kentucky implemented a Controlled Substances Act and promulgated corresponding regulations. In the last 5-6 years Kentucky has also developed a uniform electronic database which captures information on prescriptions for controlled substances. This database has proven to be a significant enhancement in assuring the safe use of controlled substances.

Misuse and abuse of controlled drugs is a serious problem in Kentucky. Over the last two years, articles have appeared in the *Lexington Herald Leader* concerning abuse of controlled substances by both Medicaid and non-Medicaid individuals particularly in the mountains of Eastern and Southeastern Kentucky. Abuse of controlled substances is harmful to individuals and families as well as to communities and the state at large. The individual, family, and society all bear the consequences of addiction. An electronic data system which captures prescriptions for controlled substances is essential in determining the extent of the problem and in creating solutions to curb continued abuse.

Summary of Progress

On July 1, 1999 the KASPER (Kentucky All Schedule Prescription Electronic Reporting) database was implemented statewide. This electronic database was designed to capture information on prescriptions for controlled substances that are dispensed within Kentucky. The database is quite comprehensive in that it captures information on all schedules of controlled substances for which there is a legitimate medical use—Schedules II-V. Information on out of state dispensing to Kentucky residents (via mail order) is also captured provided the patient does not visit the dispensing agent in person. This informational system facilitates targeting of individuals (prescribers, dispensers, and end users) who are in violation of Kentucky’s Controlled Substances Act. The electronic information system also provides valuable information to prescribing health care professionals on other controlled substances that the patient may be using.

In 2002 duties associated with the Department for Public Health’s Drug Control Branch including responsibility for the KASPER reporting system were transferred to the Office of the Inspector General (OIG), Cabinet for Health and Family Services. Through this
transfer increased emphasis was placed on investigation, follow-up, and enforcement of regulations in situations involving controlled substance abuse. Because of the transfer to an investigational/enforcement unit, there are no plans at this time to pursue some of the preventive measures originally developed by Department for Public Health staff (Objectives 13.3-13.5).

**Progress toward Achieving Each HK 2010 Objective**

**13.1. Maintain an electronic database of 90 percent of all prescription controlled substances dispensed to citizens of the Commonwealth.**

**Data Source:** Drug Control Program, Office of the Inspector General (OIG); KASPER Reporting System

**Baseline:** Prior to FY 2000, a uniform electronic database for capturing prescriptions for controlled substances did not exist in Kentucky.

**HK Target:** Implement and maintain a reporting system/database which will capture at least 90% of all prescriptions for controlled substances dispensed in Kentucky

**Mid-Decade Status:** The HK Target has been exceeded. KASPER was implemented in Kentucky in FY 1999-2000. In FY 2004-2005, information was captured by KASPER on approximately 95 percent of controlled substance prescriptions filled in the state. (In FY 2005 8,371,504 prescriptions for controlled substances were prescribed in Kentucky.)

**Strategies to Achieve Objective:**

- Continue funding for KASPER operations
- Continue to provide education/information to dispensers and health care professionals on KASPER

**13.2. (Developmental) Expand the electronic monitoring system described in Objective 13.1.**

**Data Source:** Drug Control Program, OIG; KASPER Reporting System

**Baseline:** In FY 2000, information on sales and distribution of controlled substances from wholesalers and manufacturers was not a component of KASPER; lag time for reporting by dispensers averaged 16 days; and the controlled substance data was not readily available to practitioners, pharmacists and law enforcement personnel.

**HK 2010 Target:** Expand the electronic monitoring system (Incorporate sales/distribution information from wholesalers and manufacturers in the reporting system; decrease lag time for reporting by dispensers; and increase accessibility of the data to health professionals)
Mid-Decade Status:
--The Drug Control Program in the OIG does not have any plans to include sales and distribution information in the data system; therefore, this target will be omitted.
--Lag time for reporting has not been decreased so a new strategy/strategies will be implemented.
--Data availability to health professionals has been maximized through development of an online database (eKASPER) which issues reports within 15 minutes of request. All persons permitted access by Kentucky statute to the database have access either by internet, fax, or mail. This target has been met/exceeded.

Strategies to Achieve Objective:

- Promulgate a regulation which will require dispensers to report within a specified period of time (Lag time for reporting could be decreased by an estimated 50%)
- Provide information(updates to dispensers concerning the new regulatory requirements

13.3. (Developmental) Develop a system to disseminate drug information such as safety alerts or drug recalls that is available to 85 percent of health professionals. (DELETED)

Reason for Deletion: The Drug Control Program in OIG is not pursuing this targeted objective.

13.4. (Developmental) Increase to 98 percent the proportion of pharmacies using drug alert/drug interaction systems that have been updated within the past 3 months. (DELETED)

Reason for Deletion: The Drug Control Branch in OIG has no plans to pursue this objective.

13.5. Increase to 99 percent the proportion of patients receiving, at the time their prescription is first dispensed, oral or written information related to name of drug, dose, side effects, warnings, and drug or food interactions. (DELETED)

Reason for Deletion: The Drug Control Program in OIG has no plans to pursue this objective.

References
• KASPER Program data (FY 2005)

Contributors

• Lynn Owens, Office of the Commissioner, Department for Public Health, Chapter Coordinator
• Dave Sallengs, R.Ph., Drug Control Investigator, Office of the Inspector General, Cabinet for Health and Family Services
13. Medical Product Safety – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Medical Product Safety</th>
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<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>13.2. Expand the electronic monitoring system described in Objective 13.1</td>
<td>a) Lag time in reporting averaged 16 days; b) Data not readily available to professionals</td>
<td>Decrease lag-time in reporting; b) Expand availability</td>
<td>Lag time in reporting not decreased; 5 data not readily available to professionals</td>
<td>No</td>
<td>KASPER</td>
</tr>
<tr>
<td>13.3. – 13.5. (DELETED)</td>
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</tbody>
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HK 2010 Mid-Decade Review

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14. Public Health Infrastructure

Goal

Ensure that the public health infrastructure at the state and local levels has the capacity to provide essential public health services

Overview

A strong and competent public health workforce is vital to protecting and promoting the health of Kentuckians as well as the health of our local communities. Kentucky’s public health workforce provides essential services in the areas of disease surveillance and investigation; monitoring the safety and cleanliness of restaurants and other public establishments, protecting us against environmental hazards, educating the public in healthy lifestyles and disease prevention, and responding to disasters and other emergencies. Recent disasters (Hurricanes Katrina and Rita) have made it apparent that a well organized and well functioning public health workforce is essential in disaster planning and recovery.

Summary of Progress

Kentucky’s public health workforce has entered the 21st century better equipped and better trained. State general funds appropriated by Kentucky’s Legislature in the 2001-2002 Biennium provided training to local health departments to transition from clinical services to population-based services. A multi-disciplinary team of training coordinators implemented a competency-based curriculum using the core public health functions and essential services as a guide. The Department for Public Health partnered with four universities for needs assessments and curriculum development and implementation. Additionally, the funding provided a base of support for the Kentucky Public Health Leadership Institute (KPHLI) at the University of Kentucky. This Institute provides special training and mentoring for state and local public health workers. “The Link” (Summer, 2002, Vol. 16, no.1) indicates that..."over 9,000 health professionals received training as a result of the transition training initiative."

During this time Kentucky also applied for and received several grants relating to bioterrorism. These funds significantly bolstered the state’s epidemiological expertise, further enhanced staffing competencies, and improved Kentucky’s ability to respond to a disaster or bioterrorism event. (Kentucky was able to send several teams of staff to assist in the aftermath of Hurricanes Katrina and Rita.)

Kentucky is also well on its way in establishing the Kentucky Electronic Public Health Records System (KYEPHRS). Through KYEPHRS, an electronic record will be initiated on all babies born in Kentucky beginning in FY 2006. Any contact with a health care
facility or provider will initiate an update on the child’s electronic record. This electronic information system will give health care professionals up-to-date information on health status, and as a result, facilitate better care. The availability of federal and state funding has allowed Kentucky to bring its public health information (IT) systems into the 21st century.

Progress toward Achieving Each HK Objective

14.1. (Developmental) Increase to 100 percent the number of local health departments that incorporate specific competencies for public health workers into the public health personnel system.

Data Source: The Local Personnel Branch, Division of Administration and Financial Management, Department for Public Health

Baseline: Baseline has not been established

HK 2010 Target: One hundred percent of health departments will incorporate specific competencies for public health workers into the public health personnel system.

Mid-Decade Status: In 2005 the Local Health Personnel Branch, Department for Public Health, worked to incorporate competencies into the local personnel evaluation system. By July of 2006 most local health departments (an estimated 75 percent) will have adopted a performance evaluation system based upon competencies. Training is currently underway for local environmental health supervisors on competency-based employee evaluation.

Data Needs: A survey will be undertaken in FY 2006-2007 to assess the number of local health departments incorporating competencies into their employee performance evaluation tool.

Strategies to Achieve Objective:
- The Personnel Branch will continue to promote the advantages of competency-based evaluation.
- The Personnel Branch will provide training in using the evaluation tool to local health department supervisors.
- The Personnel Branch will provide ongoing technical assistance and consultation to local health departments in the implementation and use of the performance evaluation tool.

14.2. (Developmental) Increase the number of schools training public health workers that integrate specific training in the essential public health services into their curricula.
Data Source: Kentucky Schools of Public Health and selected nursing schools

Baseline: Kentucky’s four Schools of Public Health all include training in essential public health services as part of their accreditation. In 2005, 23 percent of nursing schools were surveyed and none included training in essential public health services in their Associate or Bachelor Degree programs (nursing schools provide training in “Community Health”); a course in Public Health is included in the Masters and Doctoral Nursing Degree programs.

HK 2010 Target: Increase the number of schools training public health workers that integrate essential public health services training

Mid-Decade Status: Same as the Baseline

Data Needs: To conduct a formal survey of schools training public health workers in order to determine how many incorporate essential services training and other training considered relevant and important for public health workers

Strategies to Achieve Objective:

- The Local Personnel Branch in conjunction with the Training Branch, Division of Administration and Financial Management and the Schools of Public Health, could provide schools with information on courses considered essential/extremely important to the preparation of public health workers.
- The agencies involved could research the possibility of securing federal and other funding sources for providing such training particularly in underserved areas.
- Assure that the schools are aware of the internet-based TRAIN System and its availability as a training resource

14.3. (Developmental) Increase by 10 percent the number of public health agencies that provide continuing education and training to 100 percent of their employees to improve performance of the essential public health services.


Baseline: 9,000 public health professionals, representing all (100 percent) of Kentucky’s local health departments, received core public health training in 2001-2002¹
HK 2010 Target: Increase by 10 percent the number of local health departments that provide training to 100 percent of their employees

Mid-Decade Status: Unknown at mid-decade

Data Needs: An annual assessment of the number of local health departments that sent staff for continuing education/training (to include the number and type of staff by local health department)

Strategies to Achieve Objective:

- Promote continuing education and training of local health department personnel as requisite for provision of quality essential public health services
- Provide easy access to training using Internet and videoconferencing options (and the TRAIN system whenever possible)
- Assure optimum use and flexibility of funding resources available for training of local health department staff

14.4. The state and all local health departments will provide onsite access to data via electronic systems and online information systems such as the Internet.

Data Source: Division of Administration and Financial Management, Department for Public Health

Baseline: Prior to 2000, only a few local health departments had Internet access

HK 2010 Target: The state Department for Public Health and all (100 percent) of local health departments will have onsite access to public health data.

Mid-Decade Status: The Department for Public Health and all (100 percent) of Kentucky’s local health departments have onsite (local) access to public health and other relevant data (2005).

Data Needs: Assure training of new local health department staff by state or local personnel on how to program and produce statistical reports from their local database

Strategies to Achieve Objective:

- Periodically survey local health departments on their data needs
Assure maximum use of funding resources for continued upgrades in information technology in local health departments and in the Department for Public Health

14.5. (Developmental) To ensure that all Kentuckians will have access to public health information and surveillance data while maintaining privacy, confidentiality, and security. (See Revision)

14.5R. (REVISION) To assure accessibility by the public to public health information and surveillance data via the internet while maintaining privacy, confidentiality, and security.

**Reason for Revision:** This objective was revised because it is not possible to document (nor to assure) that all Kentuckians have access to public health information and surveillance data.

**Baseline:** For most of the decade prior to the Year 2000, limited information and data were available via the Internet on public health and public health surveillance.

**HK 2010 Target:** Assure accessibility by the public to public health information and data while maintaining privacy, confidentiality, and security

**Mid-Decade Status:** All (100 percent) of Kentucky’s libraries have Internet access which is available to the public free of charge; the Cabinet for Health and Family Services has a website which provides information on the Cabinet, Department for Public Health, its programs and services and on local health departments. The Department also maintains a data warehouse via the Internet which provides information and data in a number of areas including (to name a few): Department for Public Health Annual Reports, Epidemiology reports including Reportable Diseases, Behavioral Risk Factor Surveillance System (BRFSS), County Health Profiles, Vital Statistics, and Healthy Kentuckians.

**Data Needs:** Assure that the website is updated at regular intervals

**Strategies to Achieve Objective:**

- Continued availability of free Internet access to the public
- Expansion of Data Warehouse information to include additional program/service areas where feasible
- Regular updating of the website and data warehouse information

14.6. Increase to 100 percent the proportion of Healthy Kentuckians 2010 objectives that can be tracked for select populations.
Baseline and Mid-Decade Status: In 2005, 62.8 percent of the Healthy Kentuckians 2010 objectives can be tracked for select populations.

HK 2010 Target: Increase to 100 percent the proportion of Healthy People 2010 objectives that can be tracked for select populations.

Data Needs: In some instances, Department for Public Health staff have chosen to eliminate those objectives for which there is no current data source or for which there are inadequate funding resources to undertake a needs assessment/survey to obtain reliable data. In other instances, objectives have been revised to correspond to existing data sources.

Strategies to Achieve Objective:

- Require Department for Public Health Divisions (as part of their strategic plans) to assess progress toward Healthy Kentuckians 2010 objectives on an annual basis (where feasible).
- For objectives that cannot be tracked on an annual basis, require the Department Divisions (as part of their strategic plans) to track the objectives on at least a triennial basis (every three years).
- Require that responsibility for compiling and preparing each Division's review of the 2010 Objectives be designated in a job description and performance evaluation of a specific position in each Department for Public Health Division.

14.7. Increase to 90 percent the proportion of Healthy Kentuckians 2010 objectives that are tracked at least every three years, and to 60 percent the proportion of objectives that are tracked annually.

Data Source: Healthy Kentuckians 2010 Mid-Decade Review.

Baseline and Mid-Decade Status: In 2005, it is estimated that 86.3 percent of Healthy Kentuckians 2010 objectives can be tracked at least every three years, and 50 percent of objectives can be tracked annually.

HK 2010 Target: Increase to 90 percent the proportion of objectives that are tracked at least every three years, and to 60 percent the proportion of objectives that are tracked annually.

Data Needs: (Same as for Objective 14.6)

Strategies to Achieve Objective: (Same as for Objective 14.6)
14.8. (Developmental) **Increase the use of geocoding in all state health data systems to promote geographical information systems (GIS) as a tool for enhanced surveillance and data information.**

**Data Source:** Divisions of Public Health Protection and Safety and Administration and Financial Management

**Baseline:** Prior to 2000, use of geocoding in Kentucky’s health data systems was nonexistent

**HK 2010 Target:** Increase the use of geocoding in all state health data systems

**Mid-Decade Status:** In FY 2005, GIS was used only in the environmental health program areas; not in the patient services (personal health) or community health areas. GIS is used in the Lead Abatement Program as a targeting tool for identification of potential residential lead problems. GIS is also used in the well water program to pinpoint the location of private wells. However, as soon as the equipment/software becomes available, plans are underway in FY 2006 to expand use of GIS through the Kentucky Electronic Public Health Records System (KYEPHRS). Through the enterprise reporting component of the KYEPHRS, an electronic record will be established on every child born in Kentucky. Private physicians’ offices, local health departments, hospitals, and other licensed health care facilities will be able to enter information on each individual who is seen by that facility and for whom a record has been generated. Agency staff with designated security access will be able to view and input information into the database. Through the enterprise GIS component of the KYEPHRS, the facility or patient record will be automatically geocoded for mapping analysis and reporting purposes.

**Data Needs:** Plans are underway to implement an electronic public health record which will incorporate geocoding.

**Strategies to Achieve Objective:**

- Assure training of state, local health department, and other local agency staff in KYEPHRS system access and data entry
- Assure ongoing technical assistance, consultation, and troubleshooting on the KYEPHRS to state and local health care agencies. An informatics (competency) team will be available to state staff, local health departments, and other agencies for the implementation and ongoing operation of KYEPHRS

14.9. **Ensure access to an essential set of accurate, reliable, and timely population-based public health and environmental health laboratory**
services primarily in support of the Department for Public Health, but also in support of the Department of Mental Health and Mental Retardation, the Justice Cabinet, and the Labor Cabinet.

**Data Source:** Division of Laboratory Services, Department for Public Health

**Baseline:** In 2001 the Division of Laboratory Services provided the full range of laboratory support services mandated by Kentucky statute. These services were in support of the Departments for Public Health and Mental Health, and the Justice and Labor Cabinets. The Division was certified as a high complexity laboratory and was in compliance with federal CLIA regulations.

**HK 2010 Target:** Ensure access to an essential set of accurate, reliable, and timely population-based public health and environmental health laboratory services

**Mid-Decade Status:** In 2005 the Division of Laboratory Services continues to provide high quality services and continues to meet the certification requirements for a high complexity lab as well as federal CLIA requirements. Additionally, the Division is aligned with the KY 41st Civil Support Team to offer state of the art rapid screening and confirmation of biological and chemical terrorism agents.

**Data Needs:** Periodically assess client satisfaction with the Division of Laboratory Services

**Strategies to Achieve Objective:**

- Continued certification as a high complexity laboratory
- Continued compliance with CLIA regulations
- Participation in mock bioterrorism exercises
- Assure availability of training and continuing education for lab personnel
- Strive to build and maintain a “World Class” performance improvement and safety program

14.10. Increase to 100 percent the proportion of local health departments that provide comprehensive epidemiology services to support core public health activities.

**Data Source:** Division of Epidemiology and Health Planning, Department for Public Health
Baseline and Mid-Decade Status: In 2005, approximately 90 percent of Kentucky’s local health departments provide comprehensive epidemiology services. The availability of 22 new staff positions (17 regional epidemiologists covering Kentucky’s 56 local health departments) and five state staff has significantly enhanced local health departments' epidemiological capacity. Additionally, the provision of computer hardware, epidemiological software and associated training, as well as epidemiology training provided as part of the transition training initiative, have further bolstered local health departments' ability to provide comprehensive epidemiology services.

HK 2010 Target: Increase to 100 percent the proportion of local health departments that provide comprehensive epidemiology services

Strategies to Achieve Objective:

- To research available avenues of funding for additional epidemiological staff
- To promote ongoing training of new local health department staff in Principles of Epidemiology
- To promote availability of epidemiological hardware and software upgrades to local health departments

14.11. Increase the proportion of state and local public health agencies that make data available on public health expenditures for essential public health activities. (See Revision)

14.11R. (REVISION) Increase the proportion of state and local public health agencies that make expenditure data readily available to the public.

Reason for Revision: The state Department for Public Health does not mandate reporting of expenditures by essential public health service; rather, the state Department mandates reporting by federal and state project cost reporting area. The Department and LHDs can track expenditures for core functions of assessment, policy development and assurance.

Data Source: Division of Administration and Financial Management

Baseline: 100 percent (all local health departments) are required by statute to publish an annual financial statement on the health department and the taxing district (for those departments that have a public health tax). Additionally, financial information is provided each year to the county court clerk. However, information may not be readily available and accessible to the public or tax payer. An undetermined number of health
departments make financial information available to the public through an annual report or similar document.

**HK 2010 Target:** To determine the baseline and increase (from the baseline) the proportion of local health departments that makes expenditure data readily available through an annual report or similar document

**Mid-Decade Status:** In 2005 a significant (but unknown) number of local health departments publish an annual report which is distributed to various agencies, stakeholders, and the public. This report generally includes information on expenditures for public health services. Additionally, a few (4) local health departments maintain websites which may include this information as well. The state Department for Public Health publishes an annual report which is available over the Internet and contains information on public health service expenditures.

**Data Needs:** A survey of local health departments needs to be conducted to determine the number of departments that publish and distribute an annual report in their community.

**Strategies to Achieve Objective:**

- Strongly encourage local health departments to issue an annual report detailing program expenditures and to make it available to community agencies and the public
- Consider adding information on each local health department’s expenditures to the state Department’s annual report which is available over the Internet
- Consider adding annual information on each local health department’s expenditures to the Data Warehouse available over the Internet

**14.12. (Developmental) Facilitate greater collaboration and cooperation between public and private agencies for conducting population-based prevention research.**

**Data Source:** Division of Administration and Financial Management

**Baseline:** Baseline is unknown at this time; however, prior to FY 2000, the state Department was required to have separate contracts with the Universities for each of the state Department’s research or service projects. In FY 2000, the Department folded projects with each of the two major Universities (University of Kentucky and University of Louisville) into two mega contracts. Local health departments were also permitted to incorporate different services (projects) with the same contractor into one contract document.
**HK 2010 Target:** To determine the baseline and, where appropriate, facilitate greater collaboration and cooperation between public and private agencies for conducting population-based prevention research

**Mid-Decade Status:** Unknown at this time (Both the state Department and local health departments are required to have formal memoranda of understanding (MOA’s) or contracts with outside agencies. Local health departments and/or the state Department have in the past contracted with managed care organizations, private foundations, and health care product producers.) Local health departments have contracts and interagency agreements with outside providers but these agreements are primarily for services rather than research.

**Data Needs:**
- To determine the number of existing contracts/MOA’s for population-based prevention research conducted by the state Department and local health departments
- A survey is needed to determine the number of population-based prevention research projects the state Department is contracting for and to determine the number of population-based prevention research projects local health departments are contracting for. Prevention-based research is conducted primarily at federal and state levels. However, a few large health departments may contract with outside agencies for population-based research projects.

**Strategies to Achieve Objective:**
- Retain the ability for local health departments to incorporate population-based research into one contract as this forgoes the development of an entirely new contract document for separate projects with the same contractor
- Encourage local health departments (that have the resources) to participate in population-based preventive research with private, non-profit agencies, making optimum use of the Department and local health departments’ epidemiological expertise
- Encourage state Department staff to apply for population-based prevention research in their program area, making optimum use of the Department’s epidemiological expertise

**14.13.** (Developmental) **Maintain at 100 percent the number of state and local health agencies that use summary measures of population health.**

**Data Source:** Divisions of Epidemiology and Adult and Child Health, Department for Public Health
Baseline: In FY 2001, 100 percent of local health departments are using summary measures of population health when planning their annual programs and services.

HK 2010 Target: Maintain the baseline of 100 percent of local health departments using summary measures of population health when planning their programs and services; expand the use of summary measures to other venues (e.g., annual reports).

Mid-Decade Status: The Department for Public Health uses statewide summary measures of population health which are incorporated in various reports and grant applications. Local health departments use summary measures of population health when planning annual programs and services.

Data Needs: Continued availability and annual updating of the County Health Profiles via the Internet.

Strategies to Achieve Objective:

- Assure availability of regional epidemiologists to assist local health departments in compiling summary measures of population health
- Assure that local health department staff have been trained in how to program and produce statistical reports from their databases

References


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## 14. Public Health Infrastructure – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Public Health Infrastructure</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.1. (Developmental) Increase to 100 percent the number of local health departments (LHDs) that incorporate specific competencies for public health workers into the public health personnel system</td>
<td>Not established</td>
<td>100%</td>
<td>TBD</td>
<td>TBD</td>
<td>Survey of LHDs in FY 2007</td>
</tr>
<tr>
<td>14.2. (Developmental) Increase the number of schools training public health workers that integrate specific training in the essential public health services into their curricula.</td>
<td>Four schools of public health include training; Of nursing schools surveyed, no training included (2005)</td>
<td>Higher than baseline</td>
<td>Same as baseline</td>
<td>N/A</td>
<td>Survey of Schools of Public Health and Nursing Schools</td>
</tr>
<tr>
<td>14.3. Developmental) Increase by 10 percent the number of public health agencies that provide continuing education and training to 100 percent of their employees to improve performance of the essential public health services.</td>
<td>100% (2001-2002)</td>
<td>100%</td>
<td>TBD</td>
<td>TBD</td>
<td>Survey of Public Health Agencies</td>
</tr>
<tr>
<td>14.4. The state and all local health departments will provide onsite access to data via electronic systems and online information systems such as the Internet.</td>
<td>Few LHDs had onsite access (1999)</td>
<td>Provide access (100%)</td>
<td>DPH and all LHDs have onsite access (2005)</td>
<td>Yes</td>
<td>Survey of LHDs and DPH</td>
</tr>
<tr>
<td>14.5R. To assure accessibility by the public to public health information and surveillance data via the internet while maintaining privacy, confidentiality, and security.</td>
<td>Limited KY public health data on internet (1999)</td>
<td>Assure accessibility to the public</td>
<td>All libraries have internet to public free of charge. CHFS now has an internet site that contains public health data</td>
<td>Yes</td>
<td>Review and maintenance of CHFS website</td>
</tr>
<tr>
<td>14.6. Increase to 100 percent the proportion of Healthy Kentuckians 2010 objectives that can be tracked for select populations.</td>
<td>62.8% (2005)</td>
<td>100%</td>
<td>62.8% (2005)</td>
<td>Yes</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
<tr>
<td>Objective</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>-----------</td>
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</tr>
<tr>
<td>14.7. Increase to a) 90 percent the proportion of Healthy Kentuckians 2010 objectives that are tracked at least every three years, and b) to 60 percent the proportion of objectives that are tracked annually.</td>
<td>a)86.3% (2005)</td>
<td>a)90%</td>
<td>86.3% (2005)</td>
<td>Yes</td>
<td>HK 2010 Mid-Decade Review</td>
</tr>
<tr>
<td>14.8. (Developmental) Increase the use of geocoding in all state health data systems to promote geographical information systems (GIS) as a tool for enhanced surveillance and data information.</td>
<td>In 2000 geocoding in KY health data systems was nonexistent</td>
<td>Increase geocoding</td>
<td>In 2005 geocoding has been used in the Environmental Health Program and in Epidemiology Division</td>
<td>Yes</td>
<td>Review of geocoding section of public health data systems</td>
</tr>
<tr>
<td>14.9. Ensure access to an essential set of accurate, reliable, and timely population-based public health and environmental health laboratory services primarily in support of the Department for Public Health, but also in support of the Department of Mental Health and Mental Retardation, the Justice Cabinet, and the Labor Cabinet.</td>
<td>In 2001, Div. of Lab Services provided full range of lab services as mandated by statute</td>
<td>Ensure access to lab services</td>
<td>In 2005, Div. of Lab Services provided full range of lab services as mandated by statute</td>
<td>Target Achieved</td>
<td>Review of lab services</td>
</tr>
<tr>
<td>14.10. Increase to 100 percent the proportion of local health departments that provide comprehensive epidemiology services to support core public health activities.</td>
<td>90% (2005)</td>
<td>100%</td>
<td>90% (2005)</td>
<td>N/A</td>
<td>Division of Epidemiology and LHDs</td>
</tr>
<tr>
<td>14.11R. Increase the proportion of state and local public health agencies that make expenditure data readily available to the public.</td>
<td>Not established</td>
<td>Increase from baseline</td>
<td>TBD</td>
<td>TBD</td>
<td>Survey of LHDs</td>
</tr>
<tr>
<td>14.12. (Developmental) Facilitate greater collaboration and cooperation between public and private agencies for conducting population-based prevention research.</td>
<td>Not established</td>
<td>Greater collaboration</td>
<td>TBD</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>14.13. (Developmental) Maintain at 100 percent the number of state and local health agencies that use summary measures of population health.</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>Target Achieved</td>
<td>Review of LHDs</td>
</tr>
</tbody>
</table>

R = Revised objective.
N/A = Only baseline data are available. Not able to determine progress at this time.
TBD = To be determined. No reliable data currently exist.
15. Health Communication

Chapter 15 “Health Communication” has been eliminated from Kentucky’s 2010 objectives and mid-decade review because of a lack of measurable data to assess the status of chapter objectives. Additionally, information on health education/health communications is addressed to some degree under the “Strategies to Achieve Objective” sections of each HK 2010 Mid-Decade Review chapter. (Information on one of the “Health Communication” Chapter objectives, Objective 15.1 relative to public access to health information, is specifically addressed under Objective 14.5 of Chapter 14-Public Health Infrastructure.)
16. Arthritis, Osteoporosis, and Chronic Back Conditions

Goal

Reduce the impact of selective musculoskeletal conditions by lessening their occurrences, activity limitations, and disabilities.

Overview

An increasing number of Americans have focused attention on the prevention and treatment of certain disabling conditions, because they desire to increase the quality and longevity of their lives. Musculoskeletal conditions such as arthritis, osteoporosis, and chronic back pain are all relevant conditions of interest for the public health system.

Arthritis

Arthritis encompasses more than 100 diseases and related conditions. Osteoarthritis, gout, rheumatoid arthritis, and fibromyalgia are among the most common forms of arthritis. Rheumatoid arthritis and lupus are two forms of arthritis that can affect multiple organs and result in widespread symptoms with seriously disabling effects. Kentucky is known to have one of the highest arthritis prevalence rates in the nation. The 2003 Behavioral Risk Factor Surveillance System (BRFSS) data indicate 35 percent of Kentuckians have doctor-diagnosed arthritis and an additional 15 percent have chronic joint symptoms consistent with arthritis. Barriers to care, being overweight or obese, and lack of regular physical activity put many of Kentucky’s residents at risk for the development and progression of this disease.

Early diagnosis, consistent medical management, weight control, appropriate levels of regular physical activity and further education through evidence based self-management strategies are essential steps toward reducing the burden of arthritis. Evidence based self-management strategies to improve the functioning of people with arthritis include: Arthritis Foundation Self-Help Programs, Arthritis Foundation Exercise Programs, and Arthritis Foundation Aquatic Programs.

Osteoporosis

Osteoporosis is a disease in which bones become fragile and are more likely to break. If not prevented or if left untreated, osteoporosis can progress painlessly until a bone breaks. These fractures occur typically in the hip, spine, and wrist. Osteoporosis is the most important underlying cause of fractures in the elderly. Although osteoporosis can be defined as low bone mass leading to structural fragility, it is difficult to determine the extent of the condition described in these qualitative terms. Using the World Health Organization’s quantitative definition based on bone density measurement, there are roughly 10 million Americans over age 50 with osteoporosis and an additional 34 million
with low bone mass or osteopenia of the hip, which puts them at risk for osteoporosis, fractures, and their potential complications later in life (National Osteoporosis Foundation 2002).

**Chronic Back Conditions**

Chronic back conditions are common and often debilitating. Annually, back pain occurs in 15-45 percent of individuals, and 70 percent to 85 percent of people report back pain at some time in their lives. Back pain in the United States has been documented as: the most frequent cause of activity limitation for persons under age 45 years, the second most common reason for physician visits, the fifth most common reason for hospitalization, and the third most common reason for surgical procedures (Healthy People 2010).

**Summary of Progress**

The HK 2010 objectives for arthritis, osteoporosis, and chronic back pain were originally written to mirror the national Healthy People 2010 draft objectives being circulated at the time. The national draft objectives largely relied on national data sets, in particular the National Health Interview Survey. Because there is no comparable surveillance system in Kentucky, it is not possible to measure progress toward many of the objectives for Kentucky. In addition, the arthritis related questions on the BRFSS, including the questions used to measure arthritis prevalence and chronic joint pain have changed since the year 2000, making comparisons across time invalid.

Because of these issues, the objectives for arthritis, osteoporosis and chronic back pain have been revised to align with the surveillance priorities established by the Centers for Disease Control and Prevention's (CDC) Arthritis Program. The new objectives rely on the BRFSS optional arthritis management module and the core arthritis and core quality of life questions.

The state arthritis program was first funded by the CDC in September of 1999. The program receives no state general funds. The state program works with local health departments and the Kentucky affiliate of the Arthritis Foundation to expand the reach of evidence based interventions to improve the ability of Kentuckians to live more comfortably and productively despite the presence of arthritis.

**Progress toward Achieving Each HK 2010 Objective**

16.1. **(Developmental) Increase mean days without severe pain for Kentucky adults with diagnosed arthritis to more than 20 of the past 30 days. (See Revision)**

16.1R. **(REVISION) Decrease the percentage of people with doctor-diagnosed arthritis who report activity limitations because of their arthritis, from 50 percent to 48 percent.**
**Reason for Revision:** This revision reflects the surveillance priorities established by the CDC Arthritis Program.

**Data Source:** BRFSS optional arthritis management module, to be conducted in odd numbered years to coincide with rotating core questions on arthritis prevalence and quality of life.

**Baseline:** 50 percent in the 2003 BRFSS optional arthritis management module

**HK 2010 Target:** Decrease to 48 percent

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Increase the number of certified Arthritis Foundation Exercise Program leaders in Kentucky
- Increase the number of Arthritis Foundation Exercise Programs offered across Kentucky
- Increase the number of certified Arthritis Foundation Aquatic Program leaders in Kentucky
- Increase access to indoor heated pools appropriate for offering the Arthritis Foundation Aquatic Programs in Kentucky
- Improve the medical management of arthritis by increasing the number of practicing rheumatologists in Kentucky

**16.2. (Developmental)** Reduce to no more than 18.4 percent the proportion of Kentucky adults with diagnosed arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence. (DELETED)

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.

**16.3. (Developmental)** Reduce the proportion of all Kentuckians with diagnosed arthritis who have difficulty in performing two or more personal care activities, thereby preserving independence. (DELETED)

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.
16.4. (Developmental) Increase the proportion of Kentuckians with diagnosed arthritis aged 18 and older who seek help in coping with personal and emotional problems. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

16.5. (Developmental) Increase the proportion of the working age population in Kentucky with diagnosed arthritis who desire to work (i.e., both those who are employed and those who are unemployed but looking for work, the labor force participation rate) to 48 percent. (See Revision)

16.5R. (REVISION) Decrease the percentage of people with doctor-diagnosed arthritis who report that arthritis impacts their ability, type, or amount of paid work they can perform, from 51 percent to 49 percent.

Reason for Revision: This revision reflects the surveillance priorities established by the CDC Arthritis Program.

Data Source: BRFSS optional arthritis management module, to be conducted in odd numbered years to coincide with rotating core questions on arthritis prevalence and quality of life

Baseline: 51 percent, 2003 BRFSS optional arthritis management module

HK 2010 Target: Decrease to 49 percent

Mid-Decade Status: See baseline

Strategies to Achieve Objective:

- Increase the number of certified Arthritis Foundation Exercise Program leaders in Kentucky
- Increase the number of Arthritis Foundation Exercise Programs offered across Kentucky
- Increase the number of certified Arthritis Foundation Aquatic Program leaders in Kentucky
- Increase access to indoor heated pools appropriate for offering the Arthritis Foundation Aquatic Programs in Kentucky
- Improve the medical management of arthritis by increasing the number of practicing rheumatologists in Kentucky
- Increase self-management of arthritis by increasing the reach of arthritis self-management educational opportunities in Kentucky
16.6. (Developmental) **Eliminate racial difference in the rate of total knee replacements for severe pain and disability.** (DELETED)

**Reason for Deletion:** Data not available. Data from the Hospital Inpatient Discharge Database do not include race or ethnicity.

16.7. (Developmental) **Decrease to 15 percent the proportion of Kentucky adults who report they have arthritis but have never seen a doctor for it.** (See Revision)

16.7R. (REVISION) Decrease the percentage of people reporting chronic joint pain who have not seen a doctor for diagnosis, from 52 percent to 50 percent.

**Reason for Revision:** This revision reflects the surveillance priorities established by the CDC Arthritis Program.

**Data Source:** BRFSS optional arthritis management module, to be conducted in odd numbered years to coincide with rotating core questions on arthritis prevalence and quality of life

**Baseline:** 52 percent in 2003

**HK 2010 Target:** Decrease to 50 percent

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Improve the medical management of arthritis by increasing the number of practicing rheumatologists in Kentucky

16.8. (Developmental) **Increase the early diagnosis and appropriate treatment of individuals with systemic rheumatic diseases.** (DELETED)

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.

16.9. (Developmental) **Increase the proportion of adults in Kentucky with arthritis who have had effective, evidence based arthritis education (including information about community and self-help resources) as an integral part of the management of their condition.** (DELETED)
Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

16.10. (Developmental) Increase the proportion of Kentucky hospitals, managed care organizations, and large group practices that provide effective, evidence based arthritis education (including information about community and self-help resources). (See Revision)

16.10R. (REVISION) Increase, by 10 percent, the number of certified instructors for the evidence based arthritis education programs: Arthritis Foundation Self-Help Programs, Arthritis Foundation Exercise Programs, and “Arthritis Foundation Aquatic” Programs by 2010.

Reason for Revision: This revision reflects the surveillance priorities established by the CDC Arthritis program.

Data Source: Tracked by the Kentucky Branch of the Arthritis Foundation

Baseline: (2005) Certified Aquatic Program leaders– 77
(2005) Certified Arthritis Foundation Exercise Program leaders– 20

HK 2010 Target: Certified Aquatic Program leaders– 84
Certified Arthritis Foundation Exercise Program leaders– 22
Certified Arthritis Foundation Self-Help Program leaders– 23
Certified Support Group leaders – 22

Mid-Decade Status: See baseline

Strategies to Achieve Objective:

- Increase the number of opportunities to receive leader certifications in Arthritis Foundation self-management and exercise interventions
- Support local health departments in sending staff for such certifications

16.11. (Developmental) Increase the proportion of overweight Kentucky adults with arthritis who have adopted some dietary practices combined with regular physical activity to attain an appropriate body weight. (See Revision)

16.11R. (REVISION) Increase the percentage of adults with arthritis who meet or exceed the recommendations for moderate physical activity, from 28 percent to 30 percent.
**Data Source:** BRFSS optional arthritis management module, to be conducted in odd numbered years to coincide with rotating core questions on arthritis prevalence and quality of life.

**Baseline:** 28 percent in 2003

**HK 2010 Target:** Increase to 30 percent

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Support the many programs to increase moderate physical activity across the state
- Increase participation in Arthritis Foundation approved exercise programs

**16.12.** (Developmental) **Reduce the prevalence of osteoporosis in Kentucky, as defined by low bone mineral density (BMD), to no more than 8 percent among persons aged 50 and over. (DELETED)**

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.

**16.13.** (Developmental) **Increase to 35 percent the proportion of persons in Kentucky over the age of 13 who receive counseling from their health care provider, or school based nutrition programs, or university extension programs about osteoporosis prevention. (See Revision)**

**16.13R.** (REVISION) **Increase the percentage of middle and high schools in Kentucky that teach the importance of including calcium in the diet in their health education courses.**

**Reason for Revision:** To reflect how data are collected in the School Health Profiles

**Data Source:** CDC School Health Profiles, 2002

**Baseline:** 86.8 percent in 2002

**HK 2010 Target:** Increase to 90 percent

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**
• Support coordinated school health programs across Kentucky

16.14. (Developmental) Increase the proportion of women aged 50 and older in Kentucky, as well as other persons at high risk in the state for osteoporosis, who are counseled about prevention of osteoporosis as well as about appropriate regimens for the treatment of osteoporosis. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

16.15. (Developmental) Reduce the prevalence activity limitations due to chronic back conditions to no more than 27 per 1,000 persons in Kentucky. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

16.16N. (NEW OBJECTIVE) Reduce the rate of hospitalization for vertebral fractures associated with osteoporosis (rate per 10,000 adults aged 65 and older).

Data Source: Hospital Inpatient Discharge Database: ICD (principal diagnosis code 733.12, path Fx Vertebrae)

Baseline: 12.8 per 10,000 in 2001

HK 2010 Target: 11.5 per 10,000

Mid-Decade Status: 14.8 per 10,000 in 2003

Strategies to Achieve Objective:

• Improve education regarding the importance of calcium intake and physical activity for girls and women as preventives for osteoporosis
• Increase early diagnosis of osteoporosis
• Improve medical management of osteoporosis
• Increase participation in Arthritis Foundation approved exercise programs and self-management interventions

16.17N. (NEW OBJECTIVE) Increase the number of practicing rheumatologists in Kentucky by 25 percent.
This objective reflects efforts by the University of Kentucky College of Medicine to establish a residency program for recent medical school graduates desiring to specialize in rheumatology.

Data Source: Review of licensed rheumatologists in Kentucky

Baseline: 35 in 2005

HK 2010 Target: 44

Mid-Decade Status: See baseline

Strategies to Achieve Objective:

• Support the UK College of Medicine in establishment of a residency program in Rheumatology

Terminology

Activity Limitations: Problems in a person’s performance of everyday functions, such as communication, self-care, mobility, learning and behavior.

Arthritis: Inflammation of a joint usually accompanied by pain and frequently changes in structure.

Arthritis and Other Rheumatic Conditions: More than 100 conditions (diseases or problems) that primarily affect the joints, muscles, fascia, tendons, and other connective tissues of the body.

Behavioral Risk Factor Surveillance System (BRFSS): A telephone survey that collects health information from adults 18 years of age and older.

Bone Mineral Density (BMD): Measurement used to determine the presence of osteoporosis.

Chronic Back Conditions: Low back pain and other conditions affecting only the back.

Chronic Joint Symptoms: Pain, aching, stiffness, or swelling in or around a joint that was present on most days for at least one month in the past 12 months.

Disability: The reduction of a person’s capacity to function in society.

Fibromyalgia: A clinical syndrome characterized by generalized muscular pain and fatigue.
**Musculoskeletal Conditions:** Conditions affecting the skeleton, joints, muscles, and connective tissues of the body.

**Osteoarthritis:** A slowly progressive, degenerative joint disease that results from breakdown of cartilage and leads to pain and stiffness; usually affects the knees, hips, and hands; the most common form of arthritis.

**Osteopenia:** A reduction in bone mass, defined as a BMD between 1.5 to 2 standard deviations below the reference BMD for young adults.

**Osteoporosis:** A reduction in bone mass and a deterioration of the micro-architecture of the bone leading to bone fragility. More specifically, a BMD below 2.5 standard deviations of the reference BMD for young adults is indicative of osteoporosis.

**Rheumatoid Arthritis:** A chronic inflammatory disease of the body that produces its most prominent manifestations in joints, often leading to joint pain, stiffness, and deformity.

**Rheumatologist:** A physician who specializes in the treatment of arthritis and other rheumatic conditions.

**References**


**Contributors**

- Patricia Hinson, RN, Coordinator, Arthritis Program, Chronic Disease Prevention and Control Branch, Department for Public Health, Chapter Coordinator
- Teri Wood, PhD, Epidemiologist, Chronic Disease Prevention and Control Branch, Department for Public Health
- Leslie Crofford, M.D. Professor of Internal Medicine; Chief, Division of Rheumatology; Gloria W. Singletary Chair and Director, Women’s Health Program; University of Kentucky College of Medicine
- Jo Ann Oliver, Health Outreach Coordinator; Arthritis Foundation, Louisville Branch, Ohio River Valley Chapter
16. Arthritis, Osteoporosis and Chronic Back Pain – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Arthritis, Osteoporosis, and Chronic Back Pain</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>16.1R. Decrease the percentage of people with doctor diagnosed arthritis who report activity limitations because of their arthritis, from 50 percent to 48 percent.</td>
<td>50% (2003)</td>
<td>≤48%</td>
<td>50% (2003)</td>
<td>N/A</td>
<td>BRFSS</td>
</tr>
<tr>
<td>16.2. – 16.4. (DELETED)</td>
<td></td>
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</tr>
<tr>
<td>16.5R. Decrease the percentage of people with doctor diagnosed arthritis who report that arthritis impacts the ability, type, or amount of paid work they can perform, from 51 percent to 49 percent.</td>
<td>51% (2003)</td>
<td>≤49%</td>
<td>51% (2003)</td>
<td>N/A</td>
<td>Optional Arthritis module on BRFSS</td>
</tr>
<tr>
<td>16.6. (DELETED)</td>
<td></td>
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<tr>
<td>16.7R. Decrease the percentage of people reporting chronic joint pain who have not seen a doctor for diagnosis, from 52 percent to 50 percent.</td>
<td>52% (2003)</td>
<td>≤50%</td>
<td>52% (2003)</td>
<td>N/A</td>
<td>Optional Arthritis module on BRFSS</td>
</tr>
<tr>
<td>16.8. – 16.9. (DELETED)</td>
<td></td>
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</tr>
<tr>
<td>16.10R. Increase by 10 percent, the number of certified instructors for the evidence-based arthritis education programs: Arthritis Foundation Self Help (ASH) courses, Arthritis Foundation Exercise Programs (AFEP), and Arthritis Foundation Aquatics courses by 2010.</td>
<td>Aquatics: 77 (2005)</td>
<td>≥84</td>
<td>77 (2005)</td>
<td>N/A</td>
<td>As compiled by the KY Arthritis Foundation</td>
</tr>
<tr>
<td></td>
<td>ASH: 21 (2005)</td>
<td>≥23</td>
<td>21 (2005)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>16.11R. Increase the percentage of adults with arthritis who meet or exceed the recommendations for moderate physical activity, from 28 percent to 30 percent.</td>
<td>28% (2003)</td>
<td>≥30%</td>
<td>28% (2003)</td>
<td>N/A</td>
<td>Optional Arthritis module on BRFSS</td>
</tr>
<tr>
<td>16.12. (DELETED)</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>16.13R. Increase the percentage of middle and high schools in Kentucky that teach the importance of including calcium in the diet in their health education courses.</td>
<td>86.8% (2002)</td>
<td>≥90%</td>
<td>86.8% (2002)</td>
<td>N/A</td>
<td>SHEP</td>
</tr>
</tbody>
</table>

HK 2010 Mid-Decade Review
### Summary of Objectives for Arthritis, Osteoporosis, and Chronic Back Pain

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>(rate per 10,000 adults aged 65 and older).</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>16.17N. Increase the number of practicing rheumatologists in Kentucky by 25%.</td>
<td>35 (2005)</td>
<td>≥44</td>
<td>35 (2005)</td>
<td>N/A</td>
<td>Survey of Medical Board of License</td>
</tr>
</tbody>
</table>

R = Revised objective, N = New objective  
N/A = Only baseline data are available. Not able to determine progress at this time.
17. Cancer

Goal

Reduce the burden of cancer on the Kentucky population by decreasing cancer incidence, morbidity, and mortality rates.

Overview

Cancer is the second leading cause of death in Kentucky. The American Cancer Society (ACS) estimates over 570,000 Americans will die of cancer in 2005. Of these annual cancer deaths, 9,560 are expected in Kentucky. In 2005, 1,372,910 million new cases of cancer will be diagnosed nationally, including 23,020 new cases that are likely to be diagnosed in Kentucky.

Kentucky’s health care community continues to meet challenges in determining the contributing factors for and addressing geographic and racial disparities in cancer mortality. African-American residents die from cancer at a higher rate than white residents. The age-adjusted mortality rate for cancers in Kentucky during 1998 through 2002 is higher for men than for women, slightly higher for rural Kentuckians than urban residents, and higher for Appalachian residents than for non-Appalachian Kentuckians.

In addition to the human toll of cancer, the financial costs of cancer are enormous. The National Cancer Institute (NCI) estimates that the overall costs for cancer in 2004 were $189.8 billion, with $69.4 billion for direct medical expenditures, $16.9 billion for lost productivity due to illness, and $103.5 billion for costs of lost productivity due to premature death.

The number of new cancer cases and deaths, as well as the costs of cancer morbidity and mortality, can be reduced in Kentucky through screening tests for breast, cervical, and colorectal cancers. Other essential public health activities include education of residents about cancer screening, tobacco avoidance and cessation, and other risk reduction practices, such as increasing physical activity, achieving a healthy weight, improving nutrition, and avoiding sun overexposure. Efforts to make cancer screening, information, and referral services available and accessible are essential for reducing the high rates of cancer and cancer deaths. These efforts must include approaches to reduce health care disparities among Appalachian and African-American residents.

Summary of Progress

For all cancers, the mortality rate in 2002 was 226.3 per 100,000, a decrease from the baseline of 229.9 per 100,000 in 1996. As evidenced by Kentucky Cancer Registry (KCR) data through 2002, progress has been made toward achieving the majority of
targets for HK 2010 goals related to cancer mortality. Targets were achieved for maintaining lung cancer deaths at or below 80.7 per 100,000 and reducing deaths from cancer of the uterine cervix to at or below 3.2 per 100,000. Additionally, Kentucky has met the 2010 targets to increase to at least 85 percent those women age 18 and older who received a Pap test within the preceding one to three years and to increase to at least 40 percent both men and women age 50 and older who have ever received a sigmoidoscopy or colonoscopy. Kentucky still faces challenges in improving the percentage of women age 50 and older who have received a mammogram and clinical breast exam in the past two years. The percentage declined from 73 percent in 1997 to 68.6 percent in 2004. Another concern is the decline in the percentage of persons age 50 and older who have received a fecal occult blood test within the past two years from 26 percent in 1997 to 24 percent in 2004. The number of cancer survivors who are living 5 years or longer after diagnosis also declined from 57.8 percent in 2000 to 56.2 percent in 2002.

Progress toward Achieving Each HK 2010 Objective

17.1. Reduce cancer deaths to a rate of no more than 220.7 per 100,000 people in Kentucky.

Data Sources: Kentucky Cancer Registry data are age-adjusted to the year 2000 standard. (Cancer mortality data is not available beyond 2002 from the Kentucky Cancer Registry.)

Baseline: 229.9 per 100,000 people in 1996

HK 2010 Target: No more than 220.7 per 100,000

Mid-Decade Status: 226.3 in 2002

Figure 17.1 Age-adjusted Cancer Mortality Rate, Kentucky, 1996-2002, (Source: Kentucky Cancer Registry)
Strategies to Achieve Objective:

- Implement an aggressive statewide comprehensive cancer control plan involving the combined efforts of national, state, regional, local, and community stakeholders to identify and mobilize resources to reduce cancer morbidity and mortality
- Encourage reduction in tobacco use and diet modification through public and professional education
- Promote use of early detection and screening practices by primary care providers, local health departments, and other health care agencies
- Increase community outreach efforts in prevention and early detection education

17.2. Maintain lung cancer deaths to a rate of no more than 80.7 per 100,000 people in Kentucky.

Rates of lung cancer deaths were 79.8 per 100,000 in 2002. The trend since 2000 indicates a slow decline which will slightly exceed the target of no more than 80.7 deaths per 100,000 in 2002.

Data Sources: Kentucky Cancer Registry data are age-adjusted to the year 2000 standard. (Cancer mortality data are not available beyond 2002 from the Kentucky Cancer Registry.)

Baseline: 80.7 per 100,000 in 1997

HK 2010 Target: No more than 80.7 per 100,000

Mid-Decade Status: 79.8 per 100,000 in 2002
Strategies to Achieve Objective:

- Encourage school, family and community based programs to discourage tobacco use among children and teenagers
- Support and encourage local initiatives to strengthen enforcement of youth access laws regarding tobacco
- Target pregnant women and mothers of young children with cessation counseling
- Increase number of workplaces and restaurants that are smoke free or have stronger policies against smoking

17.3. Reduce breast cancer deaths to no more than 22.5 per 100,000 women in Kentucky.

Data Sources: Kentucky Cancer Registry data are age-adjusted to the year 2000 standard. (Cancer mortality data are not available beyond 2002 from the Kentucky Cancer Registry.)

Baseline: 28.1 per 100,000 women in 1997

HK 2010 Target: No more than 22.5 per 100,000 women

Mid-Decade Status: 27.6 in per 100,000 women in 2002. Rates of breast cancer deaths declined from 28.1 per 100,000 women in 1997 to 27.6 deaths per 100,000 women in 2002.
Strategies to Achieve Objective:

- Increase availability and accessibility of breast screening and diagnostic services for uninsured and underinsured women through local health departments
- Support population based education efforts to increase screening in all women 40 and older, including education and peer counseling, to be carried out by community breast cancer coalitions and other entities
- Provide professional education opportunities to improve expertise in provision of clinical breast exams, mammography and treatment
- Promote participation in clinical trials for prevention and treatment

17.4. Reduce deaths from cancer of the uterine cervix to no more than 3.2 per 100,000 women in Kentucky.

Data Sources: Kentucky Cancer Registry data are age-adjusted to the year 2000 standard. (Cancer mortality data are not available beyond 2002 from the Kentucky Cancer Registry.)

Baseline: 4.3 per 100,000 in 1997

HK 2010 Target: No more than 3.2 per 100,000

Mid-Decade Status: 2.4 per 100,000 in 2002, Cervical cancer rates have declined to 2.4 per 100,000 women in 2002 exceeding the target of 3.2 per 100,000 women.
Strategies to Achieve Objective:

- Increase availability and accessibility of cervical screening and diagnostic services for uninsured and underinsured women through local health departments
- Support population based education efforts carried out by community cancer coalitions and other entities to increase screening in all women 18 and older
- Provide professional education opportunities to improve technique, referral, and standards of care
- Provide education on risk factors including intercourse at an early age, multiple sex partners, and sexually transmitted disease

17.5. Increase a) to at least 85 percent the proportion of women ages 40 and older who have ever received a Clinical Breast Exam (CBE) and mammogram. and b) to at least 85 percent in those ages 50 and older who have received a CBE and mammogram within the preceding one to two years.

Data Source: Kentucky Behavioral Risk Factor Surveillance System (BRFSS), 1997-2004. Starting in 2000, questions on women’s health are included in even numbered years.

Baseline: In 1997, 78 percent of women 40 and older had at some time received a mammogram and Clinical Breast Exam (CBE), and 73 percent of women 50 and older had a mammogram and clinical breast exam within the past 2 years.
HK 2010 Target: a) At least 85 percent the proportion of women ages 40 and older will have ever received a mammogram and a CBE, and b) at least 85 percent those ages 50 and older will have received a mammogram and a CBE in the preceding one to two years.

Mid-Decade Status: a) The percentage of women age 40 and older who have ever had a mammogram and clinical breast examination (CBE) has exceeded the baseline of 78 percent in 1997 with an increase to 82.3 percent in 2004. b) However, the percentage of women age 50 and older who had a mammogram and CBE within the preceding 2 years declined from the baseline of 73 percent in 1997 to 68.6 percent in 2004.
Strategies to Achieve Objective:

- Increase availability and accessibility of breast screening and diagnostic services for uninsured and underinsured women through local health departments
- Support population based education efforts carried out by community breast cancer coalitions and other entities to increase screening in all women 40 and older
- Provide professional education opportunities to improve expertise in the provision of clinical breast exams, mammography and treatment
- Promote participation in clinical trials for prevention and treatment

17.6. Increase a) to at least 95 percent the proportion of women ages 18 and older who have ever received a Pap test, and b) to at least 85 percent of those who received a Pap test within the preceding one to three years.

Data Source: Kentucky BRFSS, 1997-2004. Starting in 2000, questions on women’s health are included in even numbered years.

Baseline: In 1997, 93 percent had a Pap test at some time, and 82 percent had a Pap test within the past 3 years.

HK 2010 Target: a) At least 95 percent in the proportion of women ages 18 and older will have ever received a Pap test. b) At least 85 will have received a Pap test in the last three years.

Mid-Decade Status: In 2004, a) 94.2 percent had a Pap test at some time, and b) 85 percent had a Pap test within the past 3 years. By 2004, the percent of women age 18 and older having ever had a Pap test was 94.2 percent (slightly below the target, but exceeding the baseline), while 85 percent had received a Pap test within the past 3 years, to meet the target.
Figure 17.7 Women age 18 and Older Who Have Ever Received a Pap Test, Kentucky, 1997, 2000, 2002, and 2004 (Source: BRFSS)

Figure 17.8 Females Age 18 and Older Who Have Had a Pap Test in the Past Three Years, Kentucky, 1997, 2000, 2002 and 2004 (Source: BRFSS)

Strategies to Achieve Objective:

- Increase availability and accessibility of cervical screening and diagnostic services for uninsured and underinsured women through local health departments
- Support population based education efforts carried out by community cancer coalitions to increase screening in all women 18 and older
- Provide professional education opportunities to improve technique, referral, and standards of care
- Provide professional education opportunities to increase health care providers' awareness of accepted screening guidelines

17.7. To reduce colorectal cancer deaths to no more than 23.5 per 100,000 people in Kentucky.
Data Sources: Kentucky Cancer Registry data are age-adjusted to the year 2000 standard. (Cancer mortality data are not available beyond 2002 from the Kentucky Cancer Registry.)

Baseline: In 1996, the death rate for colorectal cancer was 25.3 per 100,000 (Male 29.9, Female 21.9).

HK 2010 Target: No more than 23.5 per 100,000

Mid-Decade Status: In 2002, the death rate for colorectal cancer was 24.1 per 100,000 with a disparity in the death rates between males, 30 per 100,000, and females, 20.4 per 100,000.

Strategies to Achieve Objective:

- Increase community education programs to promote compliance among people over age 50 with early detection recommendations for fecal occult blood testing and sigmoidoscopy/colonoscopy
- Promote referrals by health care providers for screening exams
- Promote clinical trial participation for prevention and/or treatment
- Promote education/outreach regarding dietary modifications to reduce risk

17.8. To increase a) to at least 35 percent the proportion of people ages 50 and older who have received fecal occult blood testing within the preceding one to two years, and b) to at least 40 percent of those who have ever received a sigmoidoscopy or colonoscopy.
**Data Source:** Kentucky BRFSS, 1997-2004, Starting in 2000, questions on colorectal cancer screening are included in even numbered years.

**Baseline:** 1997 data show 26 percent of people ages 50 and older have had a fecal occult blood test within the past 2 years and 34 percent have had a either a sigmoidoscopy or colonoscopy at some time.

**HK 2010 Target:** a) At least 35 percent of the proportion of people ages 50 and older will have received a fecal occult blood test, and b) at least 40 percent of age 50 and older will have ever received a sigmoidoscopy or colonoscopy

**Mid-Decade Status:** Data from 2004 show a) 24 percent of people ages 50 and older have had a fecal occult blood test within the past 2 years and b) 47.2 percent ever had a sigmoidoscopy or colonoscopy. The trends since establishment of the baselines for this goal reflected a) a decline in the percent of those ages 50 and older who received a fecal occult blood test and b) an increase in the percent of those who have ever received a sigmoidoscopy or colonoscopy to exceed the HK 2010 target.

![Figure 17.10 Percentage of Adults Age 50 and Older Who Have Received Fecal Occult Blood Testing within the Past Two Years, Kentucky, 1997, 2000, 2002, and 2004 (Source: BRFSS)](image-url)
Strategies to Achieve Objective:

- Increase community education programs to promote compliance among people over age 50 with early detection recommendations for fecal occult blood testing and sigmoidoscopy/colonoscopy
- Promote referrals by health care providers for screening exams
- Promote clinical trial participation for prevention and/or treatment
- Provide public education/outreach regarding the importance of screening exams

17.9. (Developmental) Increase the number of men 50 years and older, particularly African American and other high risk individuals, who receive counseling from health care providers about prostate cancer screening. (DELETED.)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

17.10. (Developmental) Increase the percentage of persons ages 50 and older who have received oral, skin and digital rectal exams in the preceding year. (See Revision)

17.10R. (REVISION) Increase the percentage of persons age 50 and older who have received a digital rectal exam in the preceding year to at least 51 percent and have visited an oral health professional in the preceding year to at least 69 percent.
Reason for Revision: No data source has been established to track the percentage of persons ages 50 and older who have received skin exams in the preceding year; therefore, the part of the objective relating to increasing the percentage of persons ages 50 and older who have received skin exams has been deleted.

Data Source: Kentucky BRFSS, 2001-2004. Baselines were not included with the original HK 2010 objective. Therefore, baselines will be set with the first year of data available.

Baseline: Data from 2002 show that 63 percent of persons ages 50 and older received an oral exam in the preceding year. Data from 2001 show that 46 percent of persons ages 50 and older received a digital rectal exam in the preceding year.

HK 2010 Target: a) At least 69 percent of persons ages 50 and older will have received an oral exam in the preceding year, and b) at least 51 percent of persons ages 50 and older will have received a digital rectal exam in the preceding year.

Mid-Decade Status: a) In 2004, at least 62.4 percent of persons ages 50 and older received an oral exam in the preceding year, and b) at least 51 percent of persons ages 46.3 and older received a digital rectal exam in the preceding year.

Figure 17.12 Percentage of Persons Age 50 and Older Who Have Had an Oral Health Exam in the Past Year, Kentucky (Source: BRFSS)
Strategies to Achieve Objective:

- Support the efforts of the Kentucky Dental Association and the American Dental Association to promote early screenings of Kentucky adults for oral cancer
- Increase utilization of adult Medicaid benefits for detection of oral cancer in earlier stages in the high risk adult Medicaid group through education by the Department of Medicaid Services
- Promote use of early detection and screening practices for prostate cancer by primary care providers, local health departments and other health care agencies

17.11. (Developmental) Increase the percentage of Kentucky physicians who have current knowledge about genetics and disease and who appropriately counsel or refer their high risk patients. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

17.12. Increase the number of cancer survivors who are living 5 years or longer after diagnosis to at least 58.8 percent.

Data Source: Kentucky Cancer Registry (Cancer mortality data are not available beyond 2002. Incidence data for all cancers for the period of 1994-1998 was not available.)

Baseline: Data for 1996-2000 show that 57.8 percent of persons who had been diagnosed with cancer were surviving the cancer at 5 years past diagnosis.
**HK 2010 Target:** At least 58.8 percent survival rate at 5 years past diagnosis

**Mid-Decade Status:** 56.2 percent in 2002. No data source was available at the time of development of this objective. However, data are now available from the Kentucky Cancer Registry for cancer incidence and mortality for all cancers over 5 year periods. The baseline was established from the percent of survivors calculated in year 2000.

In addressing the needs of cancer survivors, there are particular areas of concern. These include increasing the number of cancer patients who are referred for cancer support services; training healthcare providers to disseminate information regarding long-term health maintenance, including the late effects of cancer treatment; and the availability of educational resources for cancer patients and their families, including information on palliative care and their rights as a cancer survivor.

![Percentage of Cancer Survivors Living Five Years or Longer after Diagnosis, Kentucky, 2000-2002 (Source: KCR)](image)

**Strategies to Achieve Objective:**

- Promote use of early detection and screening practices by primary care providers, local health departments and other health care agencies
- Provide professional education opportunities to improve technique, standards of care, and referral for treatment and survivor support services
- Promote clinical trial participation for prevention and/or treatment
- Maintain strong partnerships between the Kentucky Department for Public Health, the American Cancer Society, and Kentucky's university cancer centers to improve surveillance, access to state of the art care, and provision of professional education opportunities to ensure high standards of care
References

• Behavioral Risk Factor Surveillance System, 1997-2004
• Kentucky Cancer Registry. (2005) Cancer Mortality/Mortality Rates in Kentucky. Retrieved 08/02/05 and 08/03/05 from http://www.kcr.uky.edu/

Contributors

• Catherann Key, RN, Nurse Consultant, Program Coordinator, Kentucky Women’s Cancer Screening Program, Division of Adult and Child Health Improvement, Maternal and Child Health Branch, Department for Public Health, Chapter Coordinator
• James Cecil, DMD, MPH, Administrator, Oral Health Program, Division of Adult and Child Health Improvement, Health Access Branch, Department for Public Health
• Joy Hoskins, RN, Nurse Consultant, Women’s Health Section Supervisor, Division of Adult and Child Health Improvement, Maternal and Child Health Branch, Department for Public Health
• Tracey Jewell, MPH, Epidemiologist, Division of Adult and Child Health Improvement, Maternal and Child Health Branch, Department for Public Health
• Rachael King, Health Initiatives Director, Kentucky American Cancer Society, Mid-South Division, Inc.
• Sivaram Maratha, MSc, MPA, Data Manager, Kentucky Women’s Cancer Screening Program, Division of Adult Child Health Improvement, Maternal and Child Health Branch, Department for Public Health
## 17. Cancer – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Cancer</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.1. Reduce cancer deaths to a rate of no more than 220.7 per 100,000 people in Kentucky.</td>
<td>229.9/100,000 (1996)</td>
<td>≤220.7/100,000</td>
<td>226.3/100,000 (2002)</td>
<td>Yes</td>
<td>KCR</td>
</tr>
<tr>
<td>17.2. Maintain lung cancer deaths to a rate of no more than 80.7 per 100,000 people in Kentucky.</td>
<td>80.7/100,000 (1997)</td>
<td>≤80.7/100,000</td>
<td>79.8/100,000 (2002)</td>
<td>Target Achieved</td>
<td>KCR</td>
</tr>
<tr>
<td>17.3. Reduce breast cancer deaths to no more than 22.5 per 100,000 women in Kentucky.</td>
<td>28.1/100,000 (1997)</td>
<td>≤22.5/100,000</td>
<td>27.6/100,000 (2002)</td>
<td>Yes</td>
<td>KCR</td>
</tr>
<tr>
<td>17.4. Reduce deaths from cancer of the uterine cervix to no more than 3.2 per 100,000 women in Kentucky.</td>
<td>4.3/100,000 (1997)</td>
<td>≤3.2/100,000</td>
<td>2.4/100,000 (2002)</td>
<td>Target Achieved</td>
<td>KCR</td>
</tr>
<tr>
<td>17.5. Increase a) to at least 85 percent the proportion of women ages 40 and older who have ever received a Clinical Breast Exam (CBE) and mammogram, and b) to at least 85 percent those ages 50 and older who have received a CBE and mammogram within the preceding one to two years.</td>
<td>a)78% (1997)</td>
<td>a)≥85%</td>
<td>82.3% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>17.6. Increase a) to at least 95 percent the proportion of women ages 18 and older who have ever received a Pap test, and b) to at least 85 percent those who received a Pap test within the preceding one to three years.</td>
<td>a)93% (1997)</td>
<td>≥95%</td>
<td>94.2% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>17.7. Reduce colorectal cancer deaths to no more than 23.5 per 100,000 people in Kentucky.</td>
<td>25.3/100,000 (1996)</td>
<td>≤23.5/100,000</td>
<td>24.1/100,000 (2002)</td>
<td>Yes</td>
<td>KCR</td>
</tr>
<tr>
<td>17.8. Increase a) to at least 35 percent the proportion of people ages 50 and older who have received fecal occult blood testing within the preceding one to two years, and b) to at least 40 percent in those who have ever received a sigmoidoscopy or colonoscopy.</td>
<td>a)26% (1997)</td>
<td>≥35%</td>
<td>24% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>17.9. (DELETED)</td>
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<tr>
<td>17.10R. (Developmental) Increase the percentage of persons aged 50 and older who have received a) a digital rectal</td>
<td>a)46% (2002)</td>
<td>≥51%</td>
<td>46.3% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Summary of Objectives for Cancer</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
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<tr>
<td>exam in the preceding year to at least 51 percent and b) have visited an oral health professional in the preceding year to at least 69 percent.</td>
<td>b)63% (2002)</td>
<td>≥69%</td>
<td>62.4% (2004)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>17.11. (DELETED)</td>
<td></td>
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<td></td>
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<tr>
<td>17.12. (Developmental) Increase the number of cancer survivors who are living 5 years or longer after diagnosis to at least 58.8%.</td>
<td>57.8% (1996-2000)</td>
<td>≥58.8%</td>
<td>56.2% (2002)</td>
<td>No</td>
<td>KCR</td>
</tr>
</tbody>
</table>

R= Revised objective
18. Diabetes

Goal

Reduce preventable disease and economic burden associated with diabetes and improve the quality of life for all persons who have, or are at risk for, diabetes.

Overview

Diabetes is a major public health problem in Kentucky. Diabetes was the fifth leading cause of death in 2004, affecting an estimated 7.5 percent of the adult population. Kentucky ranks seventh among the 50 states for the highest prevalence of diabetes (2003). The prevalence of diabetes has steadily risen since the mid-1990s. A portion of this increase may be related to increased efforts to diagnose previously unrecognized diabetes or changes in the diagnostic criteria for diabetes. Nevertheless, this upward trend is expected to continue into the near future because of population characteristics and the rising prevalence of certain lifestyle risk factors for the disease.

Prevalence of diabetes is highest among men, individuals of African American descent, those aged 65 and older, and those living in the Appalachian region of the state. Death rates due to diabetes are also higher among men and African Americans in Kentucky. In fact, the age-adjusted death rate due to diabetes for African Americans (147 per 100,000) in 2002 was almost twice the comparable rate for the White population (78 per 100,000).

The medical complications of diabetes create an additional burden on the health care system in Kentucky. Specific problems include diabetic ketoacidosis, non-traumatic lower extremity amputations, cardiovascular and cerebrovascular disease, and end-stage renal disease. During 2002, there were 96,320 diabetes-related hospitalizations in the state. Direct and indirect costs due to diabetes in the Commonwealth were estimated at $2.9 billion in 2002. These costs and the impact of diabetes on the population can be reduced through modification of lifestyle risks, early diagnosis, appropriate health care, and informed self-care.

Summary of Progress

Progress is being made toward achieving the 2010 objectives. Significant improvement in the rate of lower extremity amputations has been made, with a decline from the 2000 baseline of 6 per 1,000 to 4.4 per 1,000 in 2002. The percent of adults who have a glycosylated hemoglobin measurement at least once a year has increased from the 2000 baseline of 82.9 percent to 86.9 percent in 2004. Significant improvement has also been achieved in persons with diabetes who perform self-blood glucose monitoring.
daily, with an increase from 55.1 percent in 2000 to 61.7 percent in 2004. BRFSS data indicate that persons with diabetes who take an aspirin a day or every other day has increased from 47.6 percent in 2000 to 55 percent in 2003. Progress was made in persons with diabetes who receive formal diabetes self-management training, increasing from 45.7 percent in 2000 to 48.8 percent in 2004. Reducing anomalies in infants of mothers with diabetes has improved from 268 per 1,000 in 1998 to 234 per 1,000 in 2002. In 2000, the percentage of persons with diabetes who had annual foot exams was 63 percent. The percentage declined slightly to 62 percent in 2004.

Progress has been slow, however, in decreasing the prevalence of diagnosed diabetes. The rate has increased from 6 percent in 1996-98 to 7.5 percent in 2004. The diabetes death rate has also climbed from 76 per 100,000 in 1999 to 78 per 100,000 in 2002. The incidence rate for diabetes-related end stage renal disease (ESRD) has also increased. In 1998, 11.9 per 100,000 persons with diabetes had ESRD. The 2002 rate has increased to 14.8 per 100,000. The percentage of annual influenza vaccinations in persons with diabetes has shown a slight improvement from 52 percent in 1997 to 54.9 percent in 2004. BRFSS data from 2000 showed that 75.5 percent of persons with diabetes had an annual eye exam—which met the 2010 objective. However, the percentage decreased to 70.5 percent in 2004.

**Progress toward Achieving Each HK 2010 Objective**

Mortality data are age-adjusted to the year 2000 standard population.

18.1. *(Developmental) Reduce the incidence of diabetes. (DELETED)*

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.

18.2. **Decrease the rate at which the prevalence of diagnosed diabetes is climbing so that it reaches no more than 6 percent of Kentucky’s population 18 years and older.**

**Data Source:** Behavioral Risk Factor Surveillance System (BRFSS)

**Baseline:** In 1996-98, 5.0 percent of Kentuckians 18 years and older were informed by a doctor that they had diabetes. (gestational diabetes excluded)

**Select Populations 1996-98**

- African American: 6.5 percent
- White: 4.9 percent
- Appalachian: 5.7 percent
- Male: 5.0 percent
- Female: 5.0 percent
- People aged 18 – 44: 1.4 percent
People aged 45 – 54: 5.9 percent  
People aged 55 – 64: 11.0 percent  
People aged > 65: 12.0 percent  

**HK 2010 Target:** 6 percent  

**Mid-Decade Status 2004:** 7.5 percent  

**Select Populations: 2000 - 2003**  
African American: 10.6 percent  
White: 7.0 percent  
Appalachian: 8.4 percent  
Male: 7.9 percent  
Female: 6.5 percent  
People aged 18 – 44: 2.5 percent  
People aged 45 – 54: 8.3 percent  
People aged 55 – 64: 14.2 percent  
People aged > 65: 14.6 percent  

---

**Figure 18.1** Percentage of Adults age 18+ Who Have Been Told by a Doctor that They Have Diabetes, Kentucky, 1998-2004 (Source: BRFSS)  

**Strategies to Achieve Objective:**  
- The Department for Public Health’s Diabetes Prevention and Control Program (KDPCP) will implement various population-based diabetes prevention activities in partnership with local health department staff across the state aimed primarily at the health care delivery system and at the community with use of KDPCP’s “Power of Prevention” curriculum and brochure.  
- Collaborate and participate with the Department for Public Health’s obesity, comprehensive school health, nutrition and physical activity...
staff and their partners (American Heart Association, Department of Education, Kentucky Dietetic Association, etc.) to implement activities in the areas of nutrition and physical activity targeting the health care delivery system, schools, worksites, and communities

- Collaborate with the Kentucky Action for Healthy Kids Task Force on interventions aimed at improving school policies related to nutrition and physical activity
- Collaborate with the Kentucky Diabetes Network (KDN) and key partners to develop and distribute various physician office tools/educational materials such as the KDN Pre-Diabetes Care Tool and National Diabetes Education Program’s (NDEP) “Small Steps Big Rewards” Health Care Provider Tool Kit
- Collaborate with the KDN, local health departments, local diabetes coalitions and other partners on a media campaign promoting the “Move it, Lose, Prevent it – Type 2 Diabetes” message
- Collaborate with Extension Services in all 120 Kentucky counties to provide diabetes prevention presentations, to distribute prevention information and to implement physical activity and healthy nutrition programs

18.3. (Developmental) Increase the proportion of persons with diabetes whose condition has been diagnosed. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

18.4. Slow the rise in the diabetes death rate (diabetes as a primary/underlying cause) to no more than 28 deaths per 100,000 persons. (See Revision)

18.4R. (REVISION) Limit the upward trend in the diabetes death rate to the 1999 baseline of 76 per 100,000.

Reason for Revision: Use of Year 2000 standard to calculate death rates


Baseline: 76 deaths per 100,000 people in 1999

Select Populations 1999
- African American: 135 per 100,000
- White: 72 per 100,000
- Male: 84 per 100,000
- Female: 70 per 100,000
People under age 45: 3 per 100,000
People aged 45 – 64: 63 per 100,000
People aged 65 – 74: 272 per 100,000
People aged ≥ 75: 687 per 100,000

**HK 2010 Target Setting Method:** During the 90’s the diabetes death rate has risen over 20 percent. Limiting the rise to the 1999 level would represent a significant slowing of the trend.

**HK 2010 Target:** 76 deaths per 100,000

**Mid-Decade Status:** 2002: 78 deaths per 100,000 people, age adjusted to the year 2000 standard

**Select Populations 2002**

African American: 147 per 100,000
White: 75 per 100,000
Male: 89 per 100,000
Female: 70 per 100,000
People aged 0 – 44: 3 per 100,000
People aged 45 – 64: 64 per 100,000
People aged 65 – 74: 287 per 100,000
People aged ≥ 75: 720 per 100,000

![Figure 18.2 Age-adjusted Diabetes Death Rate per 100,000, Kentucky, 1999-2002](Source: Vital Statistics Surveillance System)

**Strategies to Achieve Objective:**

- Promote the establishment and maintenance of local diabetes coalitions, support groups and self-management programs throughout the state
• Collaborate with the Kentucky Diabetes Network (KDN) and other organizations to implement the National Diabetes Education Program (NDEP) campaigns for “Control Your Diabetes for Life” and “Be Smart about Your Heart, Control the ABCs of Diabetes”
• The High Risk Population Advisory Committee of KDN will work to decrease disparities, particularly in the African American, Appalachian, Hispanic/Latino and senior populations.
• The American Diabetes Association will promote campaigns such as “Diabetes- Make the Link- Heart Disease and Stroke” and materials such as “Take the Test Know the Score;” and programs to raise awareness among the African American population.
• Develop and update newsletters, educational materials, and web pages related to diabetes, its risks and complications. Participating organizations include: the Kentucky Department for Public Health, the American Diabetes Association, Kentucky Area, the Juvenile Diabetes Research Foundation, the American Heart Association, the Kentucky Dietetic Association, the KDN, Health Care Excel, Kentucky chapters of the American Association of Diabetes Educators, local health departments, health plans, Appalshop and WMMT Mountain Radio, the Kentucky Medical Association and many other organizations
• Promote and provide up to date diabetes professional education opportunities via hospitals, universities, KDPCP, local health departments, coalitions, professional associations, and diabetes product companies
• Provide curricula, educational materials, training and mentoring to local health department staff for the provision of “Diabetes Self-Management Training”
• Provide individualized Medical Nutrition Therapy to persons with diabetes
• Increase opportunities for individual and group self-management training to individuals with diabetes and their families.
• Develop and distribute educational materials to improve physician practice and patient education
• Promote and support diabetes and/or CVD quality improvement projects/processes within the KDN Health Plan Partnership, private health plans, the Kentucky Department for Medicaid Services, the Drug and Therapeutics Information Service (DATIS), the Quality Improvement Organization for Medicare, community health centers, universities, and hospitals

18.5. Slow the rise in deaths due to cardiovascular disease where diabetes is listed as either a supplemental cause of death or an existing condition to no more than 276 per 100,000 diabetic population.
Data Source: Kentucky Vital Statistics (death certificates), 1997 and 2002. BRFSS, 1997 was used for estimated diabetes prevalence. Rates for age groups are age-specific rates; all other rates are age-adjusted.

Baseline: 283.3 deaths per 100,000 diabetic population in 1997, age-adjusted to the year 2000 standard.

HK 2010 Target: 276 deaths per 100,000

Mid-Decade Status: 334.2 deaths per 100,000 in 2002

Strategies to Achieve Objective:

Same strategies as for objective 18.4

18.6. (Developmental) Reduce perinatal mortality in infants of mothers with diabetes. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

18.7. Reduce the frequency of major congenital malformations in infants of mothers with diabetes to no more than 25 per 1,000 births. (See Revision)

18.7R. (REVISION) Reduce the frequency of anomalies in infants of mothers with diabetes to no more than 233.3 per 1,000 births.

Reason for Revision: New data are now available, and the objective was revised to match the data collection format.

Data Source: Kentucky Birth Surveillance Registry (KBSR)

Baseline: 265.9 per 1,000 births in 1998

HK 2010 Target: 233.3 per 1,000 births

Mid-Decade Status: 234.3 per 1,000 births in 2002
Figure 18.3 Anomalies in Infants of Mothers with Diabetes per 1,000 live births, Kentucky, 1998-2002 (Source: KBSR)

Strategies to Achieve Objective:

- The Department for Public Health will implement various clinical and community activities related to diabetes and pregnancy in partnership with local health department staff across the state.
- KDPCP will continue to work with DPH staff to develop/update protocols for appropriate screening guidelines, management when appropriate, pre-conceptual counseling, medical nutrition therapy, etc. to be used by local health departments.
- Local health departments, obstetricians, gynecologists, other physicians, and health professionals will provide pre-conceptual counseling and prenatal care.

18.8. (Developmental) **Reduce the frequency of foot ulcers among persons with diabetes.** (See Revision)

18.8R. (REVISION) Maintain the frequency of foot sores lasting more than four weeks to no more than 13 percent among persons with diabetes.

**Reason for Revision:** New data are now available, and the objective was revised to match the data collection format.

**Data Source:** BRFSS

**Baseline:** Thirteen percent of adults aged 18 and older with diabetes have had a foot sore that lasted more than 4 weeks in 2000.

**Select Populations 2002-2003**
- African American: 11 percent
- White: 14 percent
- Appalachian: 16 percent
- Non-Appalachian: 12 percent
Under age 65: 14 percent
Over age 65: 3 percent

**HK 2010 Target:** 13 percent

**Mid-Decade Status:** 14 percent in 2003

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**Strategies to Achieve Objective:**

- See strategies for Objective 18.4
- Promotion of national campaigns and materials such as “Feet Can Last a Lifetime”

18.9. **Reduce the frequency of lower extremity amputation to 5.4 per 1,000 persons 18 years of age and older with diabetes.**


**Baseline:** 6.0 per 1,000 persons 18 years of age and older diagnosed with diabetes in 2000

**HK 2010 Target:** 5.4 per 1,000 persons age 18 and older with diabetes

**Mid-Decade Status:** 4.4 per 1,000 persons age 18 years of age and older in 2002

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**Figure 18.4** Percentage of Adults with Diabetes Who Have Had Foot Ulcers in the Past Four Weeks, Kentucky, 2000-2003 (Source: BRFSS)
Strategies to Achieve Objective:

- See strategies for Objective 18.4
- Promotion of national campaigns and materials such as “Feet Can Last a Lifetime”
- The Kentucky Podiatric Medical Association and other partners will promote the “Knock Your Socks Off” campaign using campaign educational materials.

18.10. (Developmental) Reduce the frequency of blindness due to diabetes. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

18.11. Decrease the incidence of ESRD due to diabetes requiring dialysis or transplantation to no more than 113.4 per 1,000,000 population. (See Revision)

18.11R. (REVISION) Decrease the incidence of diabetes related ESRD that requires dialysis or transplantation to no more than 11.3 per 100,000 population.

Reason for Revision: The objective was revised to match the data source.

Data Source: Tri-State Renal Network

Baseline: 11.9 per 100,000 persons with diabetes related ESRD that required dialysis or transplantation in 1998

HK 2010 Target: Reduce the incidence of ESRD to 11.3 per 100,000
Mid-Decade Status: 14.8 per 100,000 in 2002

Figure 18.6 Incidence Rate Per 100,000 for Diabetes Related ESRD, Kentucky, 1998-2002
(Source: Tri-State Renal Network)

Strategies to Achieve Objective:

- See strategies for Objective 18.4
- Promote the National Kidney Foundation of Kentucky awareness and screening program

18.12. (Developmental) Increase the proportion of patients with diabetes who annually obtain lipid assessment (total cholesterol, LDL, HDL, triglyceride). (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

18.13. Increase to 48 percent the proportion of persons with diabetes who have a glycosylated hemoglobin measurement at least once a year. (See Revision)

18.13R. Increase to 90 percent the proportion of persons with diabetes who have a glycosylated hemoglobin (A1C) measurement at least once a year.

Reason for Revision: The target was increased due to changes in the BRFSS questions pertaining to A1C measurement.

Data Source: BRFSS

Baseline: 82.9 percent in 2000
HK 2010 Target: 90 percent of persons with diabetes have a glycosylated hemoglobin measurement at least once a year.

Mid-Decade Status: 86.9 percent in 2004

Figure 18.7 Adults with Diabetes Who Have Had an A1C Measurement at Least Once a Year, Kentucky, 2000-2004 (Source: BRFSS)

Strategies to Achieve Objective:

See strategies for Objective 18.4

18.14. (Developmental) Increase the proportion of persons with diabetes who have at least an annual measurement of urinary microalbumin. (DELETED)

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

18.15. Increase to 80 percent the proportion of persons with diabetes who have an annual dilated eye exam.

Data Sources: BRFSS

Baseline: 75.5 percent of persons 18 years and older in 2000

HK 2010 Target: Increase to 80 percent the proportion of persons with diabetes who have an annual dilated eye exam.

Mid-Decade Status: 70.5 percent in 2004
Strategies to Achieve Objective:

- See strategies for Objective 18.4
- The Kentucky Optometric Association will promote Health Vision 2000.
- Civic organizations such as the Kentucky Lions Clubs will continue to promote special projects such as the Lions Eye Health Program, an educational effort focusing on prevention of vision loss due to glaucoma and diabetes.
- The Kentucky Academy of Ophthalmology will promote projects such as the “The National Eye Care Project”.
- The American Diabetes Association and partners will promote campaigns such as “Don’t Lose Sight of Diabetes”.

18.16. Increase to 70 percent the proportion of persons with diabetes who have at least an annual foot exam.

Data Sources: BRFSS

Baseline: 63 percent of persons 18 years and older with diabetes in 2000

HK 2010 Target: 70 percent

Mid-Decade Status: 62.1 percent in 2004
Figure 18.9 Percentage of Adults with Diabetes Who Have Had an Annual Foot Exam, Kentucky, 2000-2004 (Source: BRFSS)

Strategies to Achieve Objective:

- See strategies for Objective 18.4
- Promotion of national campaigns and materials such as “Feet Can Last a Lifetime”
- The Kentucky Podiatric Medical Association and other partners will promote the “Knock Your Socks Off” campaign using campaign educational materials.

18.17. (Developmental) Increase the proportion of persons with diabetes over 40 years of age that take aspirin daily or every other day. (See Revisions)

18.17R. Increase to 56 percent the proportion of persons with diabetes over 40 years of age that take aspirin daily or every other day.

Reason for Revision: The objective was revised to incorporate a target based on the new baseline data.

Data Source: BRFSS, cardiovascular disease module.

Baseline: 47.6 percent in 2000

HK 2010 Target: 56 percent

Mid-Decade Status: 55 percent in 2003
Figure 18.10 Percentage of Adults with Diabetes Who Take Aspirin Daily or Every Other Day, Kentucky, 2000 and 2003 (Source: BRFSS)

Strategies to Achieve Objective:

- See strategies for Objective 18.4

18.18. Increase to 45 percent the proportion of persons with diabetes who perform self-blood glucose monitoring at least daily.

18.18R. (REVISION) Increase to 65 percent the proportion of persons with diabetes who perform self-blood glucose monitoring at least daily.

Reason for Revision: Reflects changes in the BRFSS question

Data Source: BRFSS

Baseline: 55.1 percent in 2000

HK 2010 Target: 65 percent

Mid-Decade Status: 61.7 percent in 2004
Strategies to Achieve Objective:

- See strategies for Objective 18.4

18.19. Increase the proportion of persons with diabetes who have received formal diabetes self-management training. (See Revision)

18.19R. (REVISION) Increase to 49.8 percent the proportion of persons with diabetes who have received formal diabetes self-management training.

Reason for Revision: The objective was revised to match the data source.

Data Source: BRFSS

Baseline: 45.7 percent in 2000

HK 2010 Target: 49.8 percent

Mid-Decade Status: 48.8 percent in 2004
Strategies to Achieve Objective:

- See strategies for Objective 18.4

18.20. Increase to 80 percent the proportion of persons with diabetes who receive an annual influenza vaccination.

Data Source: BRFSS

Baseline: 52 percent of those 18 years of age and older in 1997

HK 2010 Target: 80 percent

Mid-Decade Status: 54.9 percent in 2004

Strategies to Achieve Objective:

- See strategies for Objective 18.4
Promote public awareness campaigns geared toward increasing the importance of flu and pneumonia immunization especially targeting Appalachian and African American populations
Kentucky Department for Public Health’s Immunization Program will promote awareness via various means and distribute guidelines for appropriate immunization.

Contributors

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- George Robertson, MA, Division of Epidemiology and Health Planning, Kentucky Department for Public Health
## 18. Diabetes – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Diabetes</th>
<th>Baseline HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>18.2. Decrease the rate at which the prevalence of diagnosed diabetes is climbing so that it reaches no more than 6 percent of the population 18 years and older.</td>
<td>5.0% (1996-98) ≤6%</td>
<td>7.5% (2004)</td>
<td>No</td>
<td>BRFSS</td>
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<tr>
<td>18.3. (DELETED)</td>
<td></td>
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<tr>
<td>18.4R. Limit the upward trend in the diabetes death rate to the 1999 baseline of 76 per 100,000.</td>
<td>76/100,000 (1999) ≤76/100,000</td>
<td>78/100,000 (2002)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>18.5. Slow the rise in deaths due to cardiovascular disease where diabetes is listed as either a supplemental cause of death or an existing condition to no more than 276 per 100,000 diabetic population.</td>
<td>283.3/100,000 (1997) ≤276/100,000</td>
<td>334.2/100,000 (2002)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>18.6. (DELETED)</td>
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<tr>
<td>18.7R. Reduce the frequency of anomalies in infants of mothers with diabetes to no more than 233.3 per 1,000 births.</td>
<td>265.9/1,000 (1998) ≤233.3/1,000</td>
<td>234.3/1,000 (2002)</td>
<td>Yes</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>18.8R. Maintain the frequency of foot sores lasting more than four weeks to no more than 13 percent among persons with diabetes.</td>
<td>Adults: 14% (2000) ≤13%</td>
<td>14% (2003)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>18.9. Reduce the frequency of lower extremity amputation to 5.4 per 1,000 persons with diabetes.</td>
<td>6/1,000 (2000) ≤5.4/1,000</td>
<td>4.4/1,000 (2002)</td>
<td>Target Achieved</td>
<td>HOSP and BRFSS</td>
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<td>18.10. (DELETED)</td>
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<tr>
<td>18.11R. Decrease the incidence of diabetes related ESRD that requires dialysis or transplantation to no more than 11.3 per 100,000 population.</td>
<td>11.9/100,000 (1998) ≤11.3/100,000</td>
<td>14.8/100,000 (2002)</td>
<td>No</td>
<td>Tri State Renal Network</td>
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<tr>
<td>18.12. (DELETED)</td>
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<tr>
<td>18.13R. Increase to 90 percent the proportion of persons with diabetes who have a glycosylated hemoglobin measurement at least once a year.</td>
<td>Adults: 82.9% (2000) ≥90%</td>
<td>86.9% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>18.14. (DELETED)</td>
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<tr>
<td>18.15. Increase to 80 percent the proportion of persons with diabetes who have an annual dilated eye exam.</td>
<td>Adults: 75.5% (2000) ≥80%</td>
<td>70.5% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>18.16. Increase to 70 percent the proportion of persons with diabetes who have at least an annual foot exam.</td>
<td>Adults: 63% (2000) ≥70%</td>
<td>62.1% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Summary of Objectives for Diabetes</td>
<td>Baseline HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
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<tr>
<td>18.17R. Increase to 56 percent the proportion of persons with diabetes over 40 years of age that take aspirin daily or every other day.</td>
<td>47.6% (2000)</td>
<td>≥56%</td>
<td>55% (2003)</td>
<td>Yes</td>
</tr>
<tr>
<td>18.18R. Increase to 65 percent the proportion of persons with diabetes who perform self-blood glucose monitoring at least daily.</td>
<td>Adults: 55.1% (2000)</td>
<td>≥65%</td>
<td>61.7% (2004)</td>
<td>Yes</td>
</tr>
<tr>
<td>18.19R. Increase to 49.8 percent the proportion of persons with diabetes who have received formal diabetes self-management training.</td>
<td>Adults: 45.7% (2000)</td>
<td>≥49.8%</td>
<td>48.8% (2004)</td>
<td>Yes</td>
</tr>
<tr>
<td>18.20. Increase to 80 percent the proportion of persons with diabetes who receive an annual influenza vaccination.</td>
<td>Adults: 52% (1997)</td>
<td>≥80%</td>
<td>54.9% (2004)</td>
<td>Yes</td>
</tr>
</tbody>
</table>

R = Revised objective
19. Disability and Secondary Conditions

Goal

Promote health and prevent secondary conditions among persons with disabilities, including eliminating disparities between persons with disabilities and the U.S. population.

Overview

Data from the 2000 Census indicate that 24 percent of Kentucky’s citizens are living with a physical, mental or sensory disability. This is almost twice the rate of the entire United States (12.5 percent). Disability is generally defined as having limitations in activities because of an impairment or health condition with a duration of at least 12 months. Activities impacted include those that negatively influence participation in work, school, leisure, and family and community life, from simple to complex, including looking and listening, standing, walking, achieving mobility, performing personal care, communicating, learning, and engaging in related behaviors.

The state is well served, however, by such organizations as the Developmental Disabilities Network, consisting of the Kentucky Developmental Disabilities Council, the Division of Protection and Advocacy and the University of Kentucky Interdisciplinary Human Development Institute. Projects of these agencies have focused on areas including: increasing access to community supports that will enable persons with disabilities to exercise greater autonomy in deciding where to live and how to spend their free time; training medical, allied health and nursing students in practical aspects of working with persons with disabilities of all ages; increasing access to public transportation services for persons with mobility limitations; improving special education services through areas such as instructional climate, use of assistive technology, training of para-educators, and improving secondary transition services; and, increasing the opportunities for employment among persons with disabilities.

While the population of Kentuckians with disabilities includes those with disabilities that are not developmental in nature, the most proactive disability organizations and agencies in the state (as well as the best data sources) are those focusing on developmental disabilities. The focus is on these types of disabilities for several reasons: 1) a large proportion of disabilities in the state are developmental; 2) many efforts that affect services for persons with developmental disabilities will have either a direct or indirect effect on those with other disabilities (e.g. transportation, employment); and 3) there is a great overlap in the needs of persons with developmental and other disabilities.
In Kentucky, as well as throughout the nation, large gaps are known to exist between individuals with and without disabilities in the areas of quality of life, access to and satisfaction with healthcare services, education, employment, and transportation. This chapter addresses the extent to which progress has been made in reducing these gaps during the first half of this decade.

**Summary of Progress**

The HK 2010 objectives for disability and secondary conditions were originally written with the assumption that certain data sources would be developed to measure progress. In the process of the mid-decade review, participants focused on identifying existing data sources which measure factors being addressed by existing programs serving persons with disabilities. One original objective addressing the education of children with disabilities has been retained. Good improvement is shown for that objective, with 61 percent of students who have a disability spending 80 percent or more of their school day in a regular education environment, up from a 1997 baseline of 50 percent.

**Progress toward Achieving Each 2010 Objective**

19.1. (Developmental) **Ensure that 100 percent of health care policy and programs include or address the interests of individuals with disabilities. (DELETED)**

**Reason for Deletion:** Data not available. Impossible to define and/or track “100 percent of health care policy and programs” at this time.

19.2. (Developmental) **Ensure that 100 percent of Kentuckians with disabilities have the opportunity to participate to their fullest potential in community life. (DELETED)**

**Reason for Deletion:** Data are not available. Other objectives address specific areas of community participation.

19.3. **Increase to 75 percent the proportion of children with disabilities included with appropriate supports in regular education programs.**

**Data Source:** Kentucky Department of Education, Office of Special Education, Placement Data for Children and Youth with Disabilities Receiving Special Education and Related Services under part B of the 1997 Amendments to the Individuals with Disabilities Education Act.

**Baseline:** 50 percent for Kentucky children 3-21 years of age with disabilities in 1997

**HK 2010 Target:** 75 percent
Mid Decade Status: 61 percent for Kentucky children 3-21 years of age in 2004

Strategies to Achieve Objective:

- Increase the number of schools that effectively incorporate aspects of Universal Design for Learning (UDL) in classrooms
- Increase the level of positive behavioral supports available to and implemented in schools
- Educate school administrators on inclusion. Promote cooperation between special education and regular education teachers to become a team and work together, in order to determine appropriate access for students with disabilities in the classroom

19.4. (Developmental) Ensure that environmental factors are rated as barriers to participation at home or work and in the community by equal proportions of people with and without disabilities. (DELETED)
   - Access to buildings
   - Access to information, communication, and other devices and technology
   - Transportation
   - Perceived community attitudes
   - Governmental policies

Reason for Deletion: There are no data to track this objective, and no data are expected in the near future.

19.5N. (NEW OBJECTIVE) Ensure that 100 percent of persons with a developmental disability who receive services from the state receive a yearly physical examination.

Data Source: National Core Indicators Survey of Persons with Developmental Disabilities, Sample is restricted to persons receiving at least one state service.

Baseline: 85.3 percent in 2000

HK 2010 Target: 100 percent

Mid-Decade Status: 89.5 percent in 2004

Strategies to Achieve Objective:

- Increase the number of medical students who receive specific training in issues related to patients with developmental disabilities
• Increase the number of practicing physicians that receive specific training in issues related to patients with developmental disabilities as part of their Continuing Medical Education requirements

• Encourage collaboration between schools and local public health department staff to increase health awareness including annual physical examinations

19.6N. (NEW OBJECTIVE) Ensure that 100 percent of women with a developmental disability who receive services from the state receive an annual gynecological examination.

Data Source: National Core Indicators Survey of Persons with Developmental Disabilities. Sample is restricted to persons receiving at least one state service.

Baseline: 53.3 percent in 2000

HK 2010 Target: 100 percent

Mid-Decade Status: 61.2 percent in 2004

Strategies to Achieve Objective:

• Increase the number of medical students that receive specific training in issues related to patients with developmental disabilities

• Increase the number of practicing physicians that receive specific training in issues related to patients with developmental disabilities as part of their Continuing Medical Education requirements

• Increase awareness of local public health department staff of the importance of annual gynecological examinations for this population

19.7N. (NEW OBJECTIVE) Ensure that 100 percent of persons with a developmental disability who receive services from the state receive a dental examination every six months.

Data Source: National Core Indicators Survey of Persons with Developmental Disabilities. Sample is restricted to persons receiving at least one state service.

Baseline: 61.2 percent in 2000

HK 2010 Target: 100 percent

Mid-Decade Status: 45.3 percent in 2004

Strategies to Achieve Objective:
• Increase the number of dental students that receive specific training in issues related to patients with developmental disabilities
• Increase the number of practicing physicians that receive specific training in issues related to patients with developmental disabilities as part of their Continuing Medical Education requirements
• Increase awareness of public health department staff of the importance of annual dental examinations for this population

19.8N. (NEW OBJECTIVE) Ensure that 100 percent of persons with a developmental disability who receive services from the state report having access to adequate transportation.

Data Source: National Core Indicators Survey of Persons with Developmental Disabilities. Sample is restricted to persons receiving at least one state service.

Baseline: 81.6 percent in 2000

HK 2010 Target: 100 percent

Mid-Decade Status: 81.7 percent in 2004

Strategies to Achieve Objective:

• Increase cooperation and communication between providers of public transportation services and consumers with disabilities
• Adapt legislation/administrative rules to allow individuals with disabilities to own assets related to transportation without being disqualified for services
• Develop a coordinated and cost effective system to reduce costs to rural service providers
• Increase the number of persons receiving funding from the Kentucky Assistive Technology Loan Fund
• Increase the percentage of public transportation vehicles that are accessible to persons with mobility limitations

19.9N. (NEW OBJECTIVE) Ensure that 100 percent of persons with a developmental disability who receive services from the state report engaging in some form of exercise or sport.

Data Source: National Core Indicators Survey of Persons with Developmental Disabilities. Sample is restricted to persons receiving at least one state service.

Baseline: 72.1 percent in 2000
HK 2010 Target: 100 percent

Mid-Decade Status: 74.5 percent in 2004

Strategies to Achieve Objective:

- Develop a resource manual on sports and recreation for persons with disabilities
- Encourage individuals with disabilities to participate in the fish and wildlife programs for persons with disabilities
- Ensure that recreational facilities understand Section 504 and are in compliance with the Rehabilitation Act
- Increase opportunities for staff training related to use of recreational facilities by persons with disabilities

19.10N. (NEW OBJECTIVE) Increase the percentage of persons with a developmental disability receiving services from the state who report going to a club or community meeting.

Data Source: National Core Indicators Survey of Persons with Developmental Disabilities. Sample is restricted to persons receiving at least one state service.

Baseline: 30 percent in 2000

HK 2010 Target: 40 percent

Mid-Decade Status: 25.9 percent in 2004

Strategies to Achieve Objective:

- Encourage local advocacy agencies to provide presentations and supports to community organizations
- Ensure that community meetings are held in accessible locations

19.11N. (NEW OBJECTIVE) Increase to at least 25 percent the number of public transportation vehicles that are accessible to persons with mobility limitations.

Data Source: Developmental Disability Council Survey of Human Service Transportation Delivery Program brokers, 1999

Baseline: 16 percent in 1999

HK 2010 Target: 25 percent
**Mid-Decade Status:** No data at this time

**Data Needs:** Survey of transportation brokers must be repeated to continue tracking this objective.

**Strategies to Achieve Objective:**

- Develop and distribute a list of funding opportunities for public transportation providers to make vehicles more accessible
- Encourage grant applications for vehicle modifications

19.12N. (NEW OBJECTIVE) Decrease the employment gap between persons with and without disabilities by 50 percent.


**Baseline:** 29.6 percentage point gap in 2000 (76.5 percent employment for non-disabled people – 46.9 percent employment for disabled people)

**HK 2010 Target:** 14.8 percent gap

**Mid-Decade Status:** Data are not currently available.

**Strategies to Achieve Objective:**

- Ensure that the final outcome of the infrastructure grant is a viable Medicaid buy-in program that allows persons with disabilities to work and retain benefits
- Encourage the participation of the Department of Vocational Rehabilitation in secondary transition planning
- Collaborate with local and state business leaders to encourage employment of persons with disabilities
- Increase the number of students in special education that engage in individualized work transition programs

19.13N. (NEW OBJECTIVE) Decrease the median earnings gap between persons with and without disabilities by 50 percent.

persons without disabilities minus median earning of persons with disabilities, divided by median earning of persons without disabilities.

**Baseline:** 13.5 percent in 2000 ($30,086 for non-disabled people – $26,020 for disabled people)

**HK 2010 Target:** 6.8 percent

**Mid-Decade Status:** Data are not currently available.

**Strategies to Achieve Objective:**

- Increase post-secondary opportunities for students in special education
- Encourage post-secondary education institutions to recruit students with disabilities to attend their programs

19.14N. (NEW OBJECTIVE) Assure that a minimum level of at least 2.24 percent (the national percentage minimum) of Kentucky children 0-3 years of age are eligible for and receive Part C services from the First Steps Program.

**Data sources:** Table AH1 from the federal Part C annual 619 report; DPH-First Steps Central Billing and Information System (CBIS); Part C Annual Progress Report to the Office of Special Education Programs

**Baseline:** 2.37 percent of children ages 0 to 3 were served by First Steps in 2003. The last available national data, FY 03, indicate that the national average reaches 2.24 percent of children ages 0-3 years who are eligible to receive Part C services. Kentucky reaches above that average to 2.37 percent of children ages 0-3 who are eligible and receiving services.

**HK 2010 Target:** Maintain a minimum level of at least 2.24 percent

**Mid-Decade Status:** 2.37 percent in 2003

**Strategies to Achieve Objective:**

- A policy agreement with the Kentucky Department of Community Based Services (DCBS) will be enacted to establish the referral process from DCBS to First Steps as required by the CAPTA amendment of the Disability and Education Act. This is a potential new referral pool that may increase Kentucky’s identification rates.
- Design a new Point of Entry (POE) report format and train the POE and Technical Assistance Staff on the new form that will begin collecting data about the screening process and CAPTA referrals
- Maintain the First Steps eligibility criteria
• Maintain the First Steps regulation regarding child find activities in the Point of Entry
• Continue the partnerships with the local early childhood providers and other primary referral sources to maintain the level of referral
• Maintain the Central Billing and Information System to ensure accurate and timely data collection and reporting

Contributors

• Victoria Greenwell, BSW, MA, Coordinated School Health, Maternal and Child Health Branch, Department for Public Health, Chapter Coordinator
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• Teri Wood PhD, Chronic Disease Epidemiologist, Chronic Disease Prevention and Control Branch, Department for Public Health, Chapter Coordinator
• Tony Lobianco PhD, MPH, University of Kentucky Interdisciplinary Human Development Institute
• Pat Seybold, Executive Director, Kentucky Developmental Disabilities Council
• Barbara Donica, Coordinated School Health, Department of Education, Division of Nutrition and Health Services
### Summary of Objectives for Disabilities and Secondary Conditions

<table>
<thead>
<tr>
<th>Summary of Objectives for Disabilities and Secondary Conditions</th>
<th>Baseline (Year)</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status (Year)</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.3. Increase to 75 percent the proportion of children with disabilities included with appropriate supports in regular education programs.</td>
<td>50% (1997)</td>
<td>75%</td>
<td>61% (2004)</td>
<td>Yes</td>
<td>Special Education Data</td>
</tr>
<tr>
<td>19.4. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.5N. Ensure that 100 percent of persons with a developmental disability who receive services from the state receive a yearly physical examination</td>
<td>85.3% (2000)</td>
<td>100%</td>
<td>89.5% (2004)</td>
<td>Yes</td>
<td>NCIS</td>
</tr>
<tr>
<td>19.6N. Ensure that 100 percent of women with a developmental disability who receive services from the state receive an annual gynecological examination</td>
<td>53.3% (2000)</td>
<td>100%</td>
<td>61.2% (2004)</td>
<td>Yes</td>
<td>NCIS</td>
</tr>
<tr>
<td>19.7N. Ensure that 100 percent of persons with a developmental disability who receive services from the state receive a dental examination every six months.</td>
<td>61.2% (2000)</td>
<td>100%</td>
<td>45.2% (2004)</td>
<td>No</td>
<td>NCIS</td>
</tr>
<tr>
<td>19.8N. Ensure that 100 percent of persons with a developmental disability who receive services from the state report having access to adequate transportation</td>
<td>81.6% (2000)</td>
<td>100%</td>
<td>81.7% (2004)</td>
<td>Yes</td>
<td>NCIS</td>
</tr>
<tr>
<td>19.9N. Ensure that 100 percent of persons with a developmental disability who receive services from the state report engaging in some form of exercise or sport.</td>
<td>72.1% (2000)</td>
<td>100%</td>
<td>74.5% (2004)</td>
<td>Yes</td>
<td>NCIS</td>
</tr>
<tr>
<td>19.10N. Increase the percentage of persons with a developmental disability that receive services from the state that report going to a club or community meeting.</td>
<td>30% (2000)</td>
<td>40%</td>
<td>25.9% (2004)</td>
<td>No</td>
<td>NCIS</td>
</tr>
<tr>
<td>19.11N. Increase to at least 25 percent the number of public transportation vehicles that are accessible to persons with mobility limitations.</td>
<td>16% (1999)</td>
<td>25%</td>
<td>No data available</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>19.12N. Decrease the employment gap between persons with and without disabilities by 50 percent.</td>
<td>29.6% (2000)</td>
<td>14.8%</td>
<td>No data available</td>
<td>TBD</td>
<td>2010 Census</td>
</tr>
<tr>
<td>Summary of Objectives for Disabilities and Secondary Conditions</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
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</tr>
<tr>
<td>19.13N. Decrease the median earnings gap between persons with and without disabilities by 50 percent.</td>
<td>13.5% (2000)</td>
<td>6.8%</td>
<td>No data available</td>
<td>TBD</td>
<td>2010 Census</td>
</tr>
<tr>
<td>19.14N. Assure that a minimum level of at least 2.24 percent (the national percentage minimum) of Kentucky children 0-3 years of age are eligible for and receive Part C services from the First Steps Program.</td>
<td>2.37% (2003)</td>
<td>2.24%</td>
<td>2.37% (2003)</td>
<td>N/A</td>
<td>First Steps Report</td>
</tr>
</tbody>
</table>

N/A = Only baseline data are available. Not able to determine progress at this time.
TBD = To be determined. No reliable data currently exist.
N = New objective
20. Heart Disease and Stroke

Goal

Enhance the cardiovascular health and quality of life of all Kentuckians through improvement of medical management, prevention and control of risk factors, and promotion of healthy lifestyle behaviors.

Overview


Research shows that specific risk factors increase the occurrence of cardiovascular disease. The major modifiable risk factors are high blood pressure, high blood cholesterol, cigarette smoking, lack of physical activity, poor dietary choices and obesity. Each of these risk factors has high rates of occurrence in Kentucky.

Summary of Progress

Progress is being made toward achieving the 2010 objectives. Significant improvement in the rate of deaths due to heart disease has been made, with a decline from the 1997 baseline of 316 deaths per 100,000 to 290 per 100,000 in 2003. The percent of adults who have had their blood cholesterol checked within the past 5 years has increased from the 1997 baseline of 66 percent to 74 percent in 2003.

Progress has been slow in the area of deaths due to stroke. The rate of death due to stroke has remained level, with a 1997 baseline of 65 per 100,000 as compared to 64 per 100,000 in 2002. The percent of adults who have been told that their blood pressure is too high has increased from the 1997 baseline of 27 percent to 29.8 percent in 2003.

Data from the 2003 Behavioral Risk Factor Surveillance System (BRFSS) show that 35 percent of adults are aware of all signs and symptoms of a heart attack and would react by calling 911. 2003 BRFSS data also show that 43 percent of adults know all signs of a stroke and would respond by calling 911. (This is a new developmental objective.)

Progress toward Achieving Each HK 2010 Objective

20.1. To reduce heart disease deaths to no more than 200 deaths per 100,000 people. (See Revision)
20.1R. (REVISION) Reduce heart disease deaths to no more than 250 deaths per 100,000 people (age adjusted to the year 2000 standard).

**Reason for Revision:** The original HK 2010 heart disease mortality objectives were measured using data that were age adjusted to the 1940 standard. This fact was overlooked in the establishment of the 2010 goal which should have assumed use of the year 2000 age adjustment standard.

**Data Source:** Kentucky Vital Statistics Surveillance System. Data are age adjusted to year 2000 standard.

**Baseline:** 316 per 100,000 in 1997

**HK 2010 Target:** 250 per 100,000

**Mid-Decade Status:** 290 per 100,000 in 2002

![Figure 20.1 Age-adjusted Heart Disease Deaths per 100,000, Kentucky, 1997, 2000-2002 (Source: Kentucky Vital Statistics Surveillance System)](image)

**Strategies to Achieve Objective:**

- Implement the work plan specified in the Kentucky Department for Public Health (KDPH) Cardiovascular Health Program grant application, as funded by the Centers for Disease Control and Prevention
- The cardiovascular disease problem in Kentucky and barriers to interventions will be evaluated through joint efforts of the KDPH staff, the CVH Steering Committee, research contracted to the University of Kentucky and assessments conducted by local health departments
• New partnerships will be formed between the KDPH, other state agencies, and other public and private organizations to promote cardiovascular health.
• The Kentucky Department of Education (KDE) will coordinate with KDPH staff and the CVH Coalition to strengthen and expand their capacity to plan, implement and evaluate strategies that improve cardiovascular health through the KDE Enhanced School Health Project.
• The Jefferson County Health Department will implement a Cardiovascular Health Program aimed at improving the cardiovascular health of the African American community in their county through environmental and policy change.
• Analyze death rate by sex, race and region in order to more accurately target efforts for intervention
• The KDE will work through the school nutrition programs to increase students’ consumption of fruits and vegetables to five per day.
• The KDE will work with schools and communities to increase moderate to vigorous physical activity to 30 minutes, five times per week.

20.2. To reduce cerebrovascular deaths to no more than 35 deaths per 100,000 people. (See Revision)

20.2R. (REVISION) Reduce cerebrovascular deaths to no more than 59 deaths per 100,000 people.

**Reason for Revision:** The original HK 2010 heart disease mortality objectives were measured using data age adjusted to the 1940 standard. This fact was overlooked in the establishment of the 2010 baseline, which should have assumed using the year 2000 age adjustment standard.

**Data Source:** Kentucky Vital Statistics Surveillance System. Data are age adjusted to year 2000 standard.

**Baseline:** 65 per 100,000 in 1997

**HK 2010 Target:** 59 per 100,000

**Mid-Decade Status:** 64 per 100,000 in 2002
Strategies to Achieve Objective:

- Implement the work plan specified in the KDPH Cardiovascular Health Program grant application. Analyze death rate by sex, race, and region in order to more accurately target efforts for intervention.
- Partner with the American Hospital Association (AHA) to encourage use of the Stroke Connection and the AHA web site in Kentucky.

20.3. Decrease to at least 20 percent the proportion of adult Kentuckians with high blood pressure.

Data Source: BRFSS, Percentage of adult Kentuckians who have been told by a health professional that their blood pressure is high.

Baseline: 27 percent in 1997

HK 2010 Target: 20 percent

Mid-Decade Status: 29.8 percent in 2003
Strategies to Achieve Objective:

- Implement the work plan specified in the Cardiovascular Health Program grant application
- Analyze rate of hypertension by sex, race and region in order to more accurately target efforts for intervention
- The AHA will implement Search Your Heart, a blood pressure education program in Kentucky churches with large African American congregations

20.4. Increase to at least 85 percent the proportion of adults who have had their blood cholesterol checked within the preceding five years.

Data Source: BRFSS, Percentage of adult Kentuckians who have had their blood cholesterol checked in the past 5 years.

Baseline: 66 percent in 1997

HK 2010 Target: 85 percent

Mid-Decade Status: 73.9 percent in 2003
Strategies to Achieve Objective:

- Analyze screening rates by region, as well as by sex and race, to better target opportunities for improvement
- Target populations with lowest percentages being tested for intervention through education and increased availability of testing
- Partner with public and private, for-profit and non-profit related organizations to increase availability of blood cholesterol screening

20.5. (Developmental) Increase the proportion of Kentucky adults, aged 20 years and over, who are aware of the early warning symptoms and signs of heart attack and the importance of accessing rapid emergency care by calling 911. (See Revision)

20.5R. (REVISION) Increase the proportion of Kentucky adults, aged 18 years and over, who are aware of the early warning signs and symptoms of heart attack and the importance of accessing rapid emergency care by calling 911.

Reason for Revision: BRFSS data to track this objective are available for adults 18 years and older.

Data Source: 2002 BRFSS, optional module on heart attack and stroke signs and symptoms.

Baseline: In 2002, 35 percent of adults 18 and older were aware of all signs of a heart attack and would react by calling 911. 85 percent would call 911 if they suspected a heart attack.
40 percent were aware of all heart attack warning signs and symptoms.
92 percent recognized chest pain or discomfort
59 percent recognized jaw, neck or back pain or discomfort
90 percent recognized arm or shoulder pain or discomfort
87 percent recognized shortness of breath
69 percent recognized feeling weak, lightheaded or faint

**HK 2010 Target:** 36 percent of adults 18 and older are aware of all signs of a heart attack and would react by calling 911.

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Analyze the baseline data by sex, race, and region to better target opportunities for improvement
- Target populations with the lowest percentages for intervention through education
- Partner with public, private, profit, and nonprofit organizations to increase education about early warning signs and symptoms of a heart attack and the importance of accessing rapid emergency care by calling 911

20.6. (Developmental) **Increase to 75 percent the proportion of females who are aware that cardiovascular disease (heart disease and stroke) is the leading cause of death for all females. (DELETED)**

**Reason for Deletion:** There are no data to track this objective, and no data are expected in the near future.

20.7N. (NEW OBJECTIVE) **Increase the proportion of Kentucky adults aged 18 years and over, who are aware of the early warning signs and symptoms of a stroke and the importance of accessing rapid emergency care by calling 911.**

**Data Source:** 2002 BRFSS, optional module on heart attack and stroke signs and symptoms.

**Baseline:** In 2002, 43 percent of adults knew all signs of a stroke and would respond by calling 911.

- 50 percent were aware of all stroke signs and symptoms
- 91 percent recognized sudden numbness or weakness
- 87 percent recognized sudden confusion or trouble speaking
- 74 percent recognized sudden trouble seeing in one or both eyes
- 86 percent recognized sudden trouble walking, dizziness, or loss of
69 percent recognized severe headache from unknown cause

**HK 2010 Target:** 44 percent of adults know all signs of a stroke and would respond by calling 911.

**Mid-Decade Status:** See baseline

**Strategies to Achieve Objective:**

- Same as for Objective 20.5R

**Contributors**

- Ron Alsup, Surveillance and Evaluation Coordinator, Kentucky Heart Disease and Stroke Program, Department for Public Health, Chapter Co-coordinator,
- Teri Wood, Ph.D., Chapter Co-Coordinator, Chronic Disease Prevention and Control Branch, Department for Public Health
- Brian Boisseau, Program Coordinator, Kentucky Heart Disease and Stroke Program, Department for Public Health
### 20. Heart Disease and Stroke – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Heart Disease and Stroke</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.1R. Reduce heart disease deaths to no more than 250 deaths per 100,000 people. (age adjusted to the year 2000 standard).</td>
<td>316/100,000 (1997)</td>
<td>≤250/100,000</td>
<td>290/100,000 (2002)</td>
<td>Yes</td>
<td>Vital Statistics.</td>
</tr>
<tr>
<td>20.2R. Reduce cerebrovascular deaths to no more than 59 deaths per 100,000 people.</td>
<td>65/100,000 (1997)</td>
<td>≤59/100,000</td>
<td>64/100,000 (2002)</td>
<td>Yes</td>
<td>Vital Statistics.</td>
</tr>
<tr>
<td>20.3. Decrease to at least 20 percent the proportion of adult Kentuckians with high blood pressure.</td>
<td>27% (1997)</td>
<td>≤20%</td>
<td>29.8% (2003)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>20.4. Increase to at least 85 percent the proportion of adults who have had their blood cholesterol checked within the preceding five years.</td>
<td>66% (1997)</td>
<td>≥85%</td>
<td>73.9% (2003)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>20.5R. Increase the proportion of Kentucky adults, aged 18 years and over, who are aware of the early warning symptoms and signs of heart attack and importance of accessing rapid emergency care by calling 911.</td>
<td>35% (2002)</td>
<td>≥36%</td>
<td>35% (2002)</td>
<td>N/A</td>
<td>BRFSS</td>
</tr>
<tr>
<td>20.6. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.7N. Increase the proportion of Kentucky adults aged 18 years and over, who are aware of the early warning symptoms and signs of a stroke and importance of accessing rapid emergency care by calling 911.</td>
<td>43% (2002)</td>
<td>≥44%</td>
<td>43% (2002)</td>
<td>N/A</td>
<td>BRFSS</td>
</tr>
</tbody>
</table>

R = Revised objective  
N = New objective  
N/A = Only baseline data are available. Not able to determine progress at this time.
Goal

Prevent HIV transmission and associated morbidity and mortality by (1) ensuring that all persons at risk for HIV infection know their serostatus, (2) ensuring that those persons not infected with HIV remain uninfected, (3) ensuring that those persons infected with HIV do not transmit HIV to others, and (4) ensuring that those infected with HIV are accessing the most effective therapies possible.

Overview

At the start of the 21st century, HIV and AIDS continue to impact the health of Kentuckians. Since the first AIDS case was reported in 1982, there have been 4,119 Kentuckians reported with AIDS of whom 2,245 are still living. Males continue to represent a sizable majority (85 percent) of cumulative AIDS cases. Whites comprise the majority of cumulative AIDS cases at 67 percent. However, African Americans are affected far more disproportionately. In 2002, African Americans comprised 7 percent of Kentucky’s total population yet 33 percent of AIDS cases diagnosed. This discrepancy has increased in recent years. Among all AIDS cases diagnosed in 2002, the majority of AIDS cases are reported in those ages 25-44. Kentucky has had very few AIDS cases reported resulting from perinatal transmission. Men who have sex with men (MSM) comprise the majority of Kentucky’s AIDS cases. In 2002, the majority of all AIDS cases resided in two of Kentucky’s largest Area Development Districts (ADDs) at the time of diagnosis: the KIPDA ADD (46 percent), including the city of Louisville, and the Bluegrass ADD (19 percent) which includes the city of Lexington. Although the majority of AIDS cases reside in urban areas, AIDS is widely dispersed throughout the state. Cases have resided in 118 of 120 Kentucky counties at time of diagnosis.

HIV/AIDS continues to be a serious public health problem in Kentucky even though AIDS incidence and deaths have declined in Kentucky and throughout the nation. Prevention efforts targeting those at high risk for HIV infection must continue. These initiatives must be culturally sensitive and incorporate differences in economic status. Emphasis on early HIV testing is an important component of HIV prevention efforts. HIV testing counselors educate HIV positive clients about ways to prevent infecting others and educate HIV negative clients about ways to avoid infection in the future. One developmental Healthy Kentuckians 2010 objective sets the goal to lengthen the time from HIV diagnosis to AIDS infection. Early HIV diagnosis and treatment are directly related to this goal. As more people are living with HIV and AIDS, we must continue to improve medical, financial, and other support services in order to extend quality years of life.

Summary of Progress
There are several objectives that have shown progress toward meeting the 2010 targets and one objective that has exceeded its target. Objective 21.1.a. which relates to confining the annual incidence of AIDS cases among adults and adolescents to 5.4 per 100,000 population was exceeded; the annual incidence of AIDS cases was lower than the target at 5.0 per 100,000 population. Progress is being made on Objective 21.1.b. which states the annual number of AIDS cases diagnosed among adults and adolescents should be confined to no more than 184 cases. The mid-decade status shows a considerable drop in the AIDS cases reported annually, although the 2010 target has not yet been met. Objective 21.5 - to increase the percent of sexually active, unmarried high school-aged youth who used a latex condom at last sexual intercourse - has also shown progress. The mid-decade status shows a 4 percentage point increase from the 1997 baseline. Progress has also been demonstrated for Objective 21.9, to increase to 100 percent the number of school children who receive classroom education on HIV and STDs. The mid-decade status for this objective shows a 2 percent incremental increase from 88 percent in 1997 to 90 percent in 2003.

The progress on objectives pertaining to HIV incidence still remains undetermined due to a change in HIV reporting criteria. On July 13, 2004, Kentucky adopted a "Confidential Name Based" reporting system. Previously, HIV cases were reported using a unique identifier system containing the case's initials. The Centers for Disease Control and Prevention (CDC) would not accept Kentucky's data as part of the national total because of this unique identifier system. By using the "Confidential Named Based" reporting system, Kentucky will now be included in national totals and will be able to more accurately determine the incidence of HIV in the state. Until a formal evaluation of this new system is conducted; however, no data on HIV will be released.

The HIV/AIDS Branch is dedicated to establishing goals and objectives to prevent and/or reduce HIV infection throughout Kentucky. Health providers are educated and encouraged to report HIV/AIDS cases to the Branch in an efficient and timely manner, in order to help facilitate HIV prevention and care services. HIV Prevention Specialists throughout Kentucky are reaching out to Kentucky's communities by providing HIV education and awareness to high risk groups. HIV care services are also offered for those persons living with HIV/AIDS through the Care Coordinator Program in centers throughout Kentucky along, with HIV drug assistance programs and insurance assistance.

21.1.a. To confine the annual incidence of diagnosed AIDS cases among adolescents and adults to no more than 5.4 per 100,000 population.

Data Source: Kentucky HIV/AIDS Surveillance System

When the baselines were set for Healthy Kentuckians 2010, the incidence rates were adjusted for reporting delay. The Kentucky HIV/AIDS program no longer adjusts for reporting delay. In order to correspond with the data for mid-decade status, the baseline rates listed below were changed to represent the AIDS incidence for 1998 not adjusted for reporting delay.
AIDS Incidence per 100,000 (Persons > 12 years old)

<table>
<thead>
<tr>
<th></th>
<th>1998 Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>7.1</td>
<td>5.4</td>
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</tr>
<tr>
<td><strong>Race</strong></td>
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<tr>
<td>White</td>
<td>4.8</td>
<td>5.4</td>
<td>3.2</td>
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<tr>
<td>African-American</td>
<td>34.5</td>
<td>5.4</td>
<td>24.3</td>
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<td>5.4</td>
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<tr>
<td>Asian/Pacific Islander</td>
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<td>*</td>
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<tr>
<td>American Indian/Alaska Native</td>
<td>*</td>
<td>*</td>
<td>*</td>
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<tr>
<td><strong>Gender and Race</strong></td>
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<tr>
<td><strong>Total males</strong></td>
<td>12.2</td>
<td>10.2</td>
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<tr>
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<td>Asian/Pacific Islander males...</td>
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<td>Am. Indian/Alaska Native males</td>
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<td>*</td>
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<tr>
<td><strong>Total females</strong></td>
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<td>Am. Indian/Alaska Native females</td>
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</tbody>
</table>

* Number of reported cases too small to complete baselines and projections.
**Progress data is based on the most complete data for AIDS, 2003.

Figure 21.1 Adult/Adolescent AIDS Incidence Rate per 100,000 by Year of Diagnosis, Kentucky, 2000-2003, (Source: KY HIV/AIDS Surveillance System, The baseline data point is not included.)
To confine the annual number of diagnosed AIDS cases among adolescents and adults to no more than 184 cases.

Data Source: Kentucky HIV/AIDS Surveillance System

When the baselines were set for Healthy Kentuckians 2010, the incidence data were adjusted for reporting delay. The Kentucky HIV/AIDS program no longer adjusts for reporting delay. In order to correspond with the data for mid-decade status, the baseline data listed below were changed to represent the AIDS incidence for 1998 not adjusted for reporting delay.

Please note that Kentucky decided to add Other/Undetermined as a risk exposure category to these objectives, as it represents a sizable population. Perinatal transmission is included in a separate objective.

<table>
<thead>
<tr>
<th>Description</th>
<th>1998 Baseline</th>
<th>HK 2010 Target</th>
<th><strong>Mid-Decade Status</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total (persons &gt; 12 years old)</td>
<td>231</td>
<td>184</td>
<td>206</td>
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<tr>
<td>Male exposure category:</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Men who have sex with men (MSM)</td>
<td>115</td>
<td>88</td>
<td>96</td>
</tr>
<tr>
<td>Injecting drug use (IDU)</td>
<td>21</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>Heterosexual contact</td>
<td>20</td>
<td>15</td>
<td>5</td>
</tr>
<tr>
<td>Other/Undetermined</td>
<td>34</td>
<td>30</td>
<td>32</td>
</tr>
<tr>
<td>Female exposure category:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Injecting drug use (IDU)</td>
<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Heterosexual contact</td>
<td>25</td>
<td>13</td>
<td>19</td>
</tr>
<tr>
<td>Other/Undetermined</td>
<td>5</td>
<td>4</td>
<td>18</td>
</tr>
</tbody>
</table>

![Figure 21.2 Adult/Adolescent AIDS Cases by Year of Diagnosis, Kentucky, 2000-2003](Source: Kentucky HIV/AIDS Surveillance System. The baseline data point is not included.)

Strategies to Achieve Objective(s):
• Identify the key persons/agencies to facilitate reaching the objective and then collaborate with them to define our roles
• Develop joint objectives with the HIV Counseling and Testing Program to increase the numbers of at-risk persons who knew their serostatus
• Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding
• Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) in order to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions
• Increase the Kentucky Health Insurance Continuation Program (KHICP) to cover a greater number of HIV positive individuals
• Continue an aggressive statewide comprehensive HIV prevention plan
• Ensure accessibility to education and prevention efforts for all populations
• Place special emphasis on providing reinforcement for behavioral change and adoption of safer sex practices among those living with HIV infection
• Place special effort on funding street outreach in order to reach those hard to reach at-risk populations
• Encourage reduction in substance use/abuse and/or encourage harm reduction activities
• Investigate removing barriers to needle exchange programs
• Support continued research on prevention and treatment

21.2. (Developmental) Reduce the annual incidence of diagnosed HIV infection in adolescents and adults.

Potential Data Source: Kentucky HIV/AIDS Surveillance System

Baseline Data: To be determined

HK 2010 Target: Unable to determine at this time

Mid-Decade Status: Unable to determine at this time

In recent years, treatments that delay the progression of HIV disease and prevent opportunistic infections have allowed people to live longer and healthier lives. Although it is still important to track annual incidence of diagnosed AIDS cases to determine where the epidemic is occurring, these new treatments have made the reporting of AIDS cases alone less indicative of recent trends in the epidemic.
The reporting system for HIV cases has changed in Kentucky. On July 13, 2004, new HIV/AIDS reporting requirements were adopted in Kentucky to include reporting for HIV using a ‘Confidential Name Based’ reporting system. As of January, 2005, 38 states were conducting ‘Confidential Name Based’ reporting for HIV surveillance. Previously, Kentucky did conduct HIV surveillance; however, cases were reported by initials and not by name. For this reason, the CDC did not count Kentucky’s HIV cases in the total HIV case number for the nation. The December 10, 1999 Morbidity and Mortality Weekly Report (MMWR) recommends that “all states and territories conduct case surveillance for HIV infection as an extension of current AIDS surveillance activities.” Although 38 states conduct HIV case surveillance, without complete information from all states, it is difficult to estimate a national representative number of HIV infections. Data from the HIV ‘Confidential Name Based’ reporting system, which was implemented as a result of these requirements, will not be released until a complete evaluation of the system has been performed.

Data Needs: Kentucky HIV Surveillance data are currently unavailable until a future evaluation can be performed.

Strategies to Achieve Objective:

- Continue an aggressive statewide comprehensive HIV prevention plan
- Ensure accessibility to education and prevention efforts for all populations
- Ensure accessibility to treatment and services for all populations
- Encourage every individual residing in Kentucky to seek HIV counseling and testing; especially those individuals with behaviors that may have placed them at increased risk
- Place special emphasis on providing reinforcement for behavioral change and adoption of safer sex practices among those living with HIV infection
- Place special effort on funding street outreach in order to reach those hard to reach at-risk populations
- Encourage reduction in substance use/abuse and/or encourage harm reduction activities
- Urge removal of barriers to needle exchange programs
- Support continued research on prevention and treatment
- Improve the HIV surveillance system in order to meet national standards to collect the most accurate and complete information for monitoring of trends in the HIV epidemic

21.3. Reduce the annual incidence of perinatally acquired HIV infection to zero cases.
Potential Data Source: Kentucky HIV/AIDS Surveillance System

Baseline: To be determined

HK 2010 Target: 0

Mid-Decade Status: Unable to be determined at this time

Data Needs: There are currently no available data on the incidence of HIV infection through perinatal transmission in the general population of pregnant women in Kentucky, and data from the Kentucky HIV Surveillance System are currently unavailable for report. The Kentucky Department for Public Health, HIV/AIDS Branch, is currently working with a Perinatal HIV Working Group to devise a policy plan to better track the incidence of preventable mother-to-child transmission of HIV in Kentucky.

Strategies to Achieve Objective:

- Continue HIV Care Coordinator education of infected women of childbearing age about perinatal HIV transmission and appropriate prevention measures
- Develop and implement prenatal care provider education programs.
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions
- Increase the Kentucky Health Insurance Continuation Program (KHICP) to cover a greater number of HIV positive individuals
- Improve the HIV surveillance system in order to meet national standards and collect the most complete and accurate information to monitor trends in the HIV epidemic

21.4. (Developmental) Increase the proportion of sexually active unmarried people age 18 and older who reported that a latex condom was used at last sexual intercourse.

Potential Data Source: Special questions developed for the BRFSS

Baseline: To be determined, because data are not currently available.

HK 2010 Target: Unable to determine at this time

Mid-Decade Status: Unable to determine at this time
Data Needs: Data on sexually active unmarried individuals 18 and older who report condom use during their last sexual encounter (adding a special question to the Kentucky BRFSS questionnaire).

Strategies to Achieve Objective:

- Continue public awareness campaigns related to the effectiveness of latex condoms in preventing HIV and other Sexually Transmitted Diseases (STDs)
- Continue active street outreach especially to those hard to reach at-risk populations
- Continue Public Sex Environment Outreach
- Encourage continued distribution of free latex products (condoms, dental dams, etc.) by all local health departments, community based organizations, and AIDS Service Organizations

21.5. To increase to at least 68 percent the number of sexually active, unmarried high school-aged youth who used a latex condom at last sexual intercourse.

Data Source: The Kentucky Youth Risk Behavior Surveillance System (YRBSS) monitors several categories of priority health-risk behaviors among youth and young adults to determine prevalence.

Baseline: 59 percent of high school youth in 1997

HK 2010 Target: 68 percent of high school youth

Mid-Decade Status: 63 percent of high school youth in 2003
Figure 21.3 Percentage of Kentucky High School Aged, Unmarried, Sexually Active Youth Who Used a Latex Condom at Last Sex, Kentucky, 2001 and 2003 (Source: YRBSS, The baseline data point is not included.)

Strategies to Achieve Objective:

- Continue public awareness campaigns related to the effectiveness of latex condoms in preventing HIV and other STDs
- Urge removal of barriers to HIV and STD prevention education in classrooms
- Ensure accessibility to education and prevention efforts for all populations
- Encourage dissemination of HIV/STD education and prevention programs of all types
- Support continued research on prevention and treatment

21.6. **Increase the proportion of clients who are screened for common bacterial STDs (Chlamydia, gonorrhea, and syphilis) and immunized against hepatitis B in confidential federally funded HIV counseling and testing sites.** (See Revision)

21.6R. *(REVISION)* **Increase the proportion of clients who are screened for common bacterial STDs (chlamydia, gonorrhea, and syphilis) at federally funded HIV counseling and testing sites.**

**Potential Data Source:** HIV Counseling and Testing Surveillance System and STD Surveillance
Baseline: To be determined, because no reliable data source currently exists.

HK 2010 Target: Unable to determine at this time

Mid-Decade Status: Unable to determine at this time

Data Needs: Data will be needed regarding the number of individuals being tested for HIV as well as screened for STDs during their visit. HIV counseling and testing sites are currently being implemented and data are currently being evaluated at this time.

Strategies to Achieve Objective:

- Ensure accessibility of Counseling, Testing, Referral, and Partner Notification (CTRPN) to all populations
- Prompt the education of all health care providers to the importance of CTRPN for all populations
- Continue to establish off site counseling and testing sites.
- Increase public awareness of the importance of knowing one’s serostatus
- Continue linkages between HIV, STD, and Tuberculosis Programs

(Developmental) Increase the proportion of persons entering treatment for injecting drug use who are also offered HIV counseling and voluntary testing.

Potential Data Source: Department for Mental Health/Mental Retardation, Division of Substance Abuse.

Baseline Data: To be determined, because no reliable data source currently exists

HK 2010 Target: Unable to determine at this time

Mid-Decade Status: Unable to determine at this time

Data Needs: Data will be needed regarding those individuals who are known injecting drug users entering substance abuse treatment centers that were also offered voluntary counseling and testing for HIV.

Strategies to Achieve Objective:

- Prompt awareness and utilization of harm reduction principles
- Ensure accessibility to education and prevention efforts for all populations
• Ensure accessibility to treatment and services for all populations
• Encourage every substance abuse treatment center in Kentucky to offer HIV counseling and testing to those individuals with behaviors that may have placed them at increased risk
• Prompt investigation into removing barriers to substance abuse treatment

21.8. Increase to 63 percent the proportion of 25 to 44 year olds with reported tuberculosis who also have knowledge of their HIV serostatus. (See Revision)

21.8R. (REVISION) Increase to 20 percent the proportion of 25 to 44 year olds with reported tuberculosis who also have knowledge of their HIV serostatus.

Data Source: Tuberculosis Information Management System (TIMS)

Baseline: 12.5 percent of 25 to 44 year olds in 2000

HK 2010 Target: 20 percent of 25 to 44 year olds

Mid Decade Status: 12.5 percent of 25 to 44 year olds in 2004

Figure 21.4: TB Cases, 25 to 44 Years of Age Who Also Have Knowledge of Their HIV Status, Kentucky, 2000-2004 (Source: TB Surveillance System)

Strategies to Achieve Objective:

• Encourage all health care providers to offer CTRPN to all populations
• Prompt the education of all health care providers to the interaction of HIV and TB
• Establish off site HIV counseling and testing sites that incorporate TB testing
• Increase public awareness of the importance of knowing one’s serostatus
• Strengthen linkages between HIV, STD, and TB programs

21.9. **Increase to 100 percent the proportion of school children who receive classroom education on HIV and STDs.**

**Data Source:** Kentucky YRBSS

**Baseline:** 88 percent of high school children in 1997

**HK 2010 Target:** 100 percent of high school children

**Mid-Decade Review:** 90 percent of high school children in 2003

![Figure 21.5](image)

**Strategies to Achieve Objective:**

• Prompt investigation into removal of barriers to HIV and STD prevention education in classrooms
• Ensure accessibility to education and prevention efforts for all populations
• Encourage dissemination of HIV/STD education and prevention programs of all types not just abstinence based programs
• Support continued research on prevention and treatment

21.10. **(Developmental): Increase the percentage of HIV-infected**
adolescents and adults in care who receive treatment consistent with current Public Health Service treatment guidelines. (See Revision)

Potential Data Sources: HIV/AIDS Surveillance – Unmet Needs Database

Baseline: To be determined, because no data source currently exists

HK 2010 Target: To be determined

Mid-Decade Status: Unable to be determined at this time

Data Needed: This objective is included in planning even though it will be very difficult to establish baseline and target numbers. The national objective references the Adult Spectrum of Disease (ASD) surveillance project, but the CDC has not sponsored that project in Kentucky. Technical assistance will be required from federal agencies on how a non-project area is to track this data.

It should also be noted that the objectives themselves have not been defined. For example, CD4 testing is a diagnostic procedure that should occur every three to six months, but the frequency is determined by the clinician.

Baseline data and targets will be developed for the following areas:

- CD4 testing
- Viral load testing
- Any antiretroviral therapy
- Tuberculin skin testing (TST)
- Pneumocystis carinii pneumonia (PCP)
- Mycobacterium avium complex (MAC)
- Pneumococcal vaccination

Strategies to Achieve Target:

- Develop data sources to establish the baseline numbers and targets
- Identify the key persons/agencies that can assist in reaching the objective and then collaborate with them to define our roles
- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions
- Increase the Kentucky Health Insurance Continuation Program (KHICP) to cover a greater number of HIV positive individuals

21.11. Reduce mortality due to HIV infection (AIDS) to no more than 1.0 per 100,000 population, and then by ethnicity and gender, as indicated below.

**Data Source:** Kentucky HIV/AIDS Surveillance System

<table>
<thead>
<tr>
<th>Death Rate Due to HIV Infection per 100,000</th>
<th>1998 Baseline</th>
<th>HK 2010 Target</th>
<th>Mid Decade 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for all persons</td>
<td>2.0</td>
<td>1.0</td>
<td>2.3</td>
</tr>
<tr>
<td><strong>Race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1.2</td>
<td>1.0</td>
<td>1.5</td>
</tr>
<tr>
<td>African-American</td>
<td>11.3</td>
<td>1.0</td>
<td>13.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td>6.6</td>
<td>1.0</td>
<td>4.4</td>
</tr>
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<td>Asian/Pacific Islander</td>
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<td>American Indian/Alaska Native</td>
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<td>*</td>
<td>*</td>
</tr>
<tr>
<td><strong>Gender and race</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total males</td>
<td>3.5</td>
<td>2.0</td>
<td>3.8</td>
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<tr>
<td>White males</td>
<td>2.4</td>
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<td>2.6</td>
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<tr>
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<td>16.3</td>
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<td>Total females</td>
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<tr>
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<td>American Indian/Alaska Native males</td>
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</table>

* number of reported cases too small to complete baselines and projections

**Strategies to Achieve Objective:**

- Identify the key persons/agencies that can assist in reaching the objective and then collaborate with them to define our roles
- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services, and provision of funding
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs, in order to prevent/treat HIV related opportunistic infections or conditions
- Increase the Kentucky Health Insurance Continuation Program (KHICP) to cover a greater number of HIV positive individuals

21.12. (Developmental) Increase years of healthy life of all individuals with HIV by extending the interval between an initial diagnosis of HIV
infection and AIDS diagnosis, and between AIDS diagnosis and death.

Potential Data Source: Kentucky HIV/AIDS Surveillance System

Baseline: To be determined. Data from the HIV surveillance system will not be released until an evaluation is completed

HK 2010 Target: To be determined

Mid-Decade Status: Unable to determine at this time

Data Needed: HIV data is needed to establish the baseline for the interval between initial HIV diagnosis and AIDS diagnosis. HIV data are currently being collected but are unavailable at this time.

Strategies to Achieve Objectives:

- Conduct further studies to determine the causes for short intervals between diagnosis with HIV and AIDS, and AIDS and death
- Develop joint objectives with the HIV Counseling and Testing Program to increase the numbers of at-risk persons who know their serostatus
- Identify the key persons/agencies that can assist in reaching the objective and then collaborate with them to define our roles
- Continue HIV Care Coordinator education of clients on treatments, referrals to primary health care services and provision of funding
- Continue to ensure adequate funding for Kentucky AIDS Drug Assistance Program (KADAP) to provide access to all antiretroviral treatments and drugs to prevent/treat HIV related opportunistic infections or conditions
- Increase the Kentucky Health Insurance Continuation Program (KHICP) to cover a greater number of HIV positive individuals

21.13.(Developmental): Increase the estimated percentage of individuals who engage in injecting drug use during the past year who are enrolled in drug abuse treatment programs. (See Revision)

21.13R.(REVISION) Increase to 15 percent the proportion of individuals who engage in injecting drug use who are enrolled in drug abuse treatment programs.

Potential Data Source: Department of Mental Health/Mental Retardation, Division of Substance Abuse.

Baseline: 9.6 percent of injection drug users in substance abuse treatment in 2000
**HK 2010 Target:** 15 percent of injection drug users in substance abuse treatment

**Mid-Decade Status:** 11.6 percent in 2004

![Figure 21.6](image)

**Figure 21.6** Percentage of Injection Drug Users Receiving Substance Abuse Treatment, Kentucky, 2000 - 2004 (Source: Dept. of Mental Health and Mental Retardation Services)

**Strategies to Achieve Objective:**

- Prompt awareness and utilization of harm reduction principles
- Ensure accessibility to education and prevention efforts for all populations
- Ensure accessibility to treatment and services for all populations
- Encourage every individual residing in Kentucky to seek HIV counseling and testing; especially those individuals with behaviors that may have placed them at increased risk
- Prompt investigation into removal of barriers to substance abuse treatment

**Terminology**

**AIDS:** Acquired Immune Deficiency Syndrome, the most severe phase of infection with the Human Immunodeficiency Virus (HIV). People infected with HIV are said to have AIDS when they get certain opportunistic infections or when their CD4+ cell count drops below 200.
**CD4+ cell count:** A type of T cell involved in protecting against viral, fungal and protozoal infections. These cells normally orchestrate the immune response, signaling other cells in the immune system to perform their special functions. CD4+ cells are also known as T helper cells. HIV infection kills CD4+ cells, so their number is a good way to track the progress of an HIV infection. A higher number usually means better health.

**HIV:** Human Immunodeficiency Virus, the virus that causes AIDS.

**Opportunistic infections (OI):** Infections that take advantage of the opportunity offered when a person’s immune system has been weakened by HIV infection. At least 25 medical conditions, including cancers and bacterial, fungal, and viral infections are associated with HIV infection.

**Serostatus:** The result of a blood test for the antibodies that the immune system creates to fight specific diseases.

**Seropositive:** Indicates that a person’s blood contains antibodies to HIV.

**Incidence:** A measure of the number of new cases reported in a given amount of time, usually within a year. Because HIV infection often is without clear early symptoms, most persons fail to recognize their infection until some period of time has passed, often years. It is estimated that approximately 40,000 new HIV infections occur each year in the United States.

**Morbidity:** The term often used in the place of illness or disease. In the case of HIV, morbidity is usually measured in illnesses that are part of a group referred to as opportunistic infections.

**Mortality:** A measure of the number of deaths directly attributed to an HIV infection or AIDS.

**Point Prevalence:** A measure of the number of people who are infected, at only one point in time, with HIV. Because HIV infection is not a reportable condition in all states, it can only be estimated that the number of persons with HIV infection in the United States ranges from 650,000 to 900,000.

**Survival Rates:** A measure of the time that elapses between a person’s infection with HIV and the time of death.

**Area Development District (ADD):** Kentucky has 120 counties that have been divided into fifteen Area Development Districts for the planning of a variety of programs.

**Harm Reduction:** Helping individuals maximize their health and potential while simultaneously reducing harm to themselves, their loved ones and their
communities. Harm reduction creates environments and develops strategies for change that are practical, humane, and effective.

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## 21. HIV – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for HIV</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.1.a. To confine the annual incidence of diagnosed AIDS cases among adolescents and adults to no more than 5.4 per 100,000 population.</td>
<td>7.1 (1998)</td>
<td>≤5.4</td>
<td>5.0 (2003)</td>
<td>Target Achieved</td>
<td>HIV/AIDS Surveillance System</td>
</tr>
<tr>
<td>21.1.b. To confine the annual number of diagnosed AIDS cases among adolescents and adults to no more than 184 cases.</td>
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<td>≤184</td>
<td>206 (2003)</td>
<td>Yes</td>
<td>HIV/AIDS Surveillance System</td>
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<td>21.2. (Developmental) Reduce the annual incidence of diagnosed HIV infection in adolescents and adults.</td>
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<td>TBD</td>
<td>TBD</td>
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</tr>
<tr>
<td>21.3. Reduce the annual incidence of perinatally acquired HIV infection to zero cases.</td>
<td>TBD</td>
<td>0</td>
<td>TBD</td>
<td>TBD</td>
<td>HIV/AIDS Surveillance System</td>
</tr>
<tr>
<td>21.4. (Developmental) Increase proportion of sexually active unmarried people age 18 and older who reported that a latex condom was used at last sexual intercourse.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>BRFSS</td>
</tr>
<tr>
<td>21.5. Increase to at least 68 percent the number of sexually active, unmarried high school-aged youth who used a latex condom at last sexual intercourse.</td>
<td>59% (1997)</td>
<td>≥68%</td>
<td>63% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>21.6R. Increase the proportion of clients who are screened for common bacterial STDs (chlamydia, gonorrhea, and syphilis) in confidential federally funded HIV counseling and testing sites.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>HIV Counseling and Testing; STD Surveillance</td>
</tr>
<tr>
<td>21.7. (Developmental) Increase the proportion of persons entering treatment for injecting drug use who are also offered HIV counseling and voluntary testing.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>Dept. of Mental Health and Mental Retardation</td>
</tr>
<tr>
<td>21.8R. Increase to 20 percent the proportion of 25 to 44 year olds with reported tuberculosis who also have knowledge of their HIV serostatus. (See Revisions)</td>
<td>12.5% (2000)</td>
<td>≥20</td>
<td>12.5% (2004)</td>
<td>No</td>
<td>TIMS</td>
</tr>
<tr>
<td>21.9. Increase to 100 percent the proportion of school children who receive classroom education on HIV and STDs.</td>
<td>88% (1997)</td>
<td>100%</td>
<td>90% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>21.10. (Developmental) Increase the percentage of HIV-infected adolescents and adults in care who receive treatment consistent with current Public Health Service treatment guidelines.</td>
<td>TBD</td>
<td>TBD</td>
<td>N/A</td>
<td>N/A</td>
<td>HIV/AIDS Surveillance System; Unmet Needs Database</td>
</tr>
<tr>
<td>Summary of Objectives for HIV</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>----------</td>
<td>----------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>21.11. Reduce mortality due to HIV infection (AIDS) to no more than 1.0 per 100,000 population, and then by ethnicity and gender.</td>
<td>2.0/100,000 (1998)</td>
<td>≤1.0/100,000</td>
<td>2.3/100,000 (2002)</td>
<td>No</td>
<td>HIV/AIDS Surveillance System</td>
</tr>
<tr>
<td>21.12. (Developmental) Increase years of healthy life of all individuals with HIV by extending the interval between an initial diagnosis of HIV infection and AIDS diagnosis, and between AIDS diagnosis and death.</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>HIV/AIDS Surveillance System</td>
</tr>
<tr>
<td>21.13R. Increase to 15 percent the proportion of individuals who engage in injecting drug use who are enrolled in drug abuse treatment programs.</td>
<td>9.6% (2000)</td>
<td>≥15%</td>
<td>11.6% (2004)</td>
<td>Yes</td>
<td>Dept. of Mental Health and Mental Retardation</td>
</tr>
</tbody>
</table>

R = Revised objective  
N/A = Only baseline data are available. Not able to determine progress at this time.  
TBD = To be determined. No reliable data currently exist.
22. Immunization and Infectious Diseases

Goal

Prevent disease, disability, and death from infectious diseases, including vaccine-preventable diseases.

Overview

The incidence and threat of bioterrorism during the first half of the decade have greatly impacted infectious disease control in Kentucky and abroad. In response to the smallpox threat of 2002-2003, the Department for Public Health has focused its attention on public health preparedness at the state and local levels, as well as improving disease surveillance and immunization service delivery. The development and expansion of regional Epidemiologic Rapid Response Teams is one of the benefits brought about by public health preparedness and response initiatives.

Another new development within the Department for Public Health is the development and implementation of an immunization registry. In 2006, the Cabinet for Health and Family Services will pilot test a statewide, population-based immunization registry. The registry is web-enabled and will eventually be made available to all public and private immunization providers. Use of the immunization registry will be a crucial addition to public health informatics, as it will promote the success of public health preparedness activities and enhance infectious disease outbreak investigations.

The purpose of public health is to assure conditions under which optimum quality of life may be realized for all people. The primary modalities are disease prevention, detection, and intervention; health protection; and health promotion. The state Tuberculosis (TB) Control Program seeks to accomplish this purpose through organized efforts that address the physical, mental and environmental health concerns of communities and populations at risk of disease. The primary program objective is to reduce Kentucky’s TB rate of 3.5 per 100,000 people to 1 per 100,000 people by the year 2010.

Adult immunization has not received major federal or state funding support, but modest increases in coverage with influenza and pneumococcal vaccines have been made. Pandemic influenza planning has moved to the forefront of the public health agenda. With the emergence of Avian Influenza (H5N1) in Southeast Asia, planning efforts have increased in an attempt to contain the potential devastation caused by a pandemic. An indirect benefit from pandemic planning is the encouragement and recommendation for the eligible adult population to be vaccinated against influenza and pneumococcal diseases.
Summary of Progress

Considerable progress has been made in infectious disease control throughout the first half of the decade. By mid-year 2005, the Louisville Metro Health Department’s immunization tracking system evolved into a population-based immunization registry that is expected to be deployed statewide early in 2006. The immunization registry is sponsored and maintained by the Department for Public Health, Cabinet for Health and Family Services. The TB rate for Kentucky continues to decrease. The state TB rate for 2004 was at an historic low of 3.1 cases per 100,000 population, compared to 3.4 in 2003. There were 127 cases reported in 2004, compared to 138 cases in 2003. Kentucky again exceeded a state objective for 2004 of reducing the verified TB case rate to 3.5 cases per 100,000 population. *Haemophilus influenzae* type b (Hib) meningitis continues to surface sporadically in unvaccinated children. Pertussis outbreaks continue to occur in unvaccinated children, but occur mostly in children outside the ages for vaccination. With the licensing in 2005 of two new “combined tetanus, diphtheria and pertussis” (Tdap) vaccines for older children and adults, (one vaccine for 10-18 years of age and another for 11-64 years of age), a decrease in pertussis is predicted among those adolescents and adults for whom previously there was no available licensed vaccine. There has been a decline in the incidence rate of hepatitis A since 2000, with the exception of 2001 (an outbreak), decreasing from 63 cases in 2000 to 31 cases in 2004. With the introduction of a regulation requiring hepatitis B immunizations for entry and attendance in 6th grade, a decrease in the hepatitis B incidence rate is anticipated throughout the decade.

Progress toward Achieving Each HK 2010 Objective

22.1. Reduce indigenous cases of vaccine-preventable disease.

**Data Source:** The Kentucky Reportable Disease System which is now referred to as KYEPHRS (Kentucky Electronic Public Health Record System).

<table>
<thead>
<tr>
<th>Disease Category</th>
<th>1998 (Baseline)</th>
<th>2004 (Mid-Decade)</th>
<th>2010 (Target)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Congenital rubella syndrome</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Diphtheria (people &lt;35 years)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> type b invasive disease (Includes unknown serotype)</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Hepatitis B (people &lt;18 years)</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Measles</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mumps</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pertussis (children &lt;7 years)</td>
<td>50</td>
<td>16</td>
<td>46</td>
</tr>
<tr>
<td>Polio (wild-type virus)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Rubella</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Tetanus (people &lt;35 years)</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Varicella</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>
**HK 2010 Target:** See Chart

**Mid-Decade Status:** See Chart

**Data Needs:** Data on varicella are needed. The Division of Epidemiology and Health Planning is working toward making varicella a reportable disease. However, a change in reporting requirements is needed to do so.

**Strategies to Achieve Objective:**

- Continue to enforce all existing laws and regulations concerning immunization and reportable diseases
- Investigate (promptly) suspected cases of vaccine-preventable diseases, vaccinate or give prophylaxis to contacts, and restrict activities of infected persons to eliminate exposures
- Implement the immunization registry which will extend the immunization information system to all immunization providers statewide
- Continue to work towards legislation that would make varicella a reportable disease

### 22.2. Reduce hepatitis A cases to an incidence of no more than 1.0 case per 100,000.

**Data Source:** KYEPHRS

![Hepatitis A Incidence Rate per 100,000, Kentucky, 1997 - 2004](Source: KYEPHRS)

**Baseline:** 2 per 100,000 in 1997

**HK 2010 Target:** 1 per 100,000

**Mid-Decade Status:** 0.8 per 100,000 in 2004
Strategies to Achieve Objective:

- Promptly investigate suspected cases and administer immune globulin to appropriate contacts
- Promote hepatitis A vaccination for illegal drug users, men who have sex with men, persons traveling to hepatitis A virus (HAV) endemic counties, persons with occupational risk (as defined by the Centers for Disease Control and Prevention), and persons with chronic liver disease
- Use hepatitis A vaccine for outbreak control in cases of outbreaks of types for which vaccine has been shown effective

22.3. Reduce to no more than 6 chronic hepatitis B virus infections in infants (perinatal infections).

Data Sources: KYEPHRS, Perinatal Hepatitis B Tracking System.

Baseline: 48 in 2000

HK 2010 Target: 6

Mid-Decade Status: 45 in 2004

![Figure 22.2 Perinatal Hepatitis B Cases, Kentucky, 2000-2004 (Source: KYEPHRS)](image)

Strategies to Achieve Objective:

- Continue legal requirements to screen pregnant women and report those infected
- Continue perinatal tracking system, including reminders for appropriate immunization and testing of infants of infected mothers
- Continue promotion of adolescent hepatitis B immunization for those not immunized earlier in life
22.4. Reduce hepatitis B rates to zero cases per 100,000 in persons less
than 18 years of age (except perinatal infections). (Baseline: 0.4
cases per 100,000 population in 1998)

Data Source: KYEPHRS

Baseline: 0.4 per 100,000 in 1998

HK 2010 Target: 0 per 100,000

Mid-Decade Status: .03 per 100,000 in 2004

![Graph showing hepatitis B incidence rate per 100,000 in persons less than 18 years of age, Kentucky, 1998-2004 (Source: KYEPHRS)]

Strategies to Achieve Objective:

- Continue legal requirement for hepatitis B immunizations for children
  born October 1, 1992, or later to receive hepatitis B vaccination
- Continue promotion of adolescent hepatitis B immunization for those
  not immunized earlier in life
- Conduct epidemiologic investigation of suspected clusters of cases
  and/or infections

22.5. Reduce hepatitis B cases per 100,000 in the following age groups:

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Baseline 1998</th>
<th>2010 Target</th>
<th>2004 Mid-Decade</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-39 years</td>
<td>3.1</td>
<td>3.0</td>
<td>0.9</td>
</tr>
<tr>
<td>≥40 years</td>
<td>6.0</td>
<td>1.0</td>
<td>0.9</td>
</tr>
</tbody>
</table>

Data Source: KYEPHRS

Baseline: 25-39 years, 3.1 per 100,000 in 1998

HK 2010 Target: 25-39 years, 3 per 100,000
Mid-Decade Status: 25-39 years, 0.9 per 100,000 in 2004
≥40 years, 0.9 per 100,000 in 2004

Strategies to Achieve Objective:

- Promotion of immunization of selected high-risk groups (as determined by the Centers for Disease Control and Prevention)
- Epidemiologic investigations of suspected clusters of cases and/or infections

22.6. Limit newly acquired hepatitis C cases to an incidence of no more than 1 case for 100,000 people. (DELETED)

Reason for Deletion: Only acute hepatitis C cases are included in the reporting system

22.7. Reduce tuberculosis to an incidence of no more than 1.0 per 100,000.

Data Source: Tuberculosis Information Management System (TIMS), a national TB Surveillance System

Baseline: 5.3 cases per 100,000 in 1999

HK 2010 Target: 1 case per 100,000

Mid-Decade Status: 3.1 cases per 100,000 in 2004

Figure 22.4 Tuberculosis Incidence Rate per 100,000, Kentucky, 1999 – 2004 (Source: TIMS)
• Monitor and emphasize appropriateness of anti-tuberculosis drug regimens
• Maximize use of directly observed therapy
• Monitor and emphasize completion of preventive therapy and maximize use of directly observed preventive therapy
• Conduct prompt and thorough epidemiologic investigation of outbreaks
• Focus screening on groups of high-risk persons

22.8. Limit the hospitalizations due to invasive pneumococcal infections to 49 per 100,000 in persons less than 5 years of age and to 53 per 100,000 in persons aged 65 and older.

22.8R. Limit the hospitalizations due to invasive pneumococcal infections to 9.8 per 100,000 in persons less than 5 years of age and to 81.7 per 100,000 in persons aged 65 and older.

Reason for Revision: No baseline was stated in the original HK 2010 document. This revision includes a revised baseline that is based on an improvement to the 2000 baseline.

Data Source: Hospital Inpatient Discharge Database

Baseline: <5, 15.4 per 100,000 in 2000
65+, 93.9 per 100,000 in 2000

HK 2010 Target: <5, 9.8 per 100,000
65+, 81.7 per 100,000

Mid-Decade Status: <5, 10.8 per 100,000 in 2004
65+, 82.7 per 100,000 in 2004

![Figure 22.5 Hospitalization Rate per 100,000 Due to Pneumococcal Infections (<5 Years of Age), Kentucky, 2000 – 2004 (Source: Hospital Inpatient Discharge Database)](image-url)
Strategies to Achieve Objective:

- Promote acceptance among high-risk groups of current pneumococcal vaccine
- Continue to promote and support universal use, vaccination with a safe and effective pneumococcal conjugate vaccine in infancy, in accordance with the ACIP recommended childhood vaccine schedule

22.9. Limit hospitalizations for peptic ulcer disease to 57 per 100,000 population.

22.9R. Limit hospitalizations for peptic ulcer disease to 4 per 100,000 population.

Reason for Revision: No baseline was stated in the original HK 2010 document. This revision includes a revised baseline that is based on an improvement to the 2000 baseline.

Data Source: Hospital Inpatient Discharge Database

Baseline: 5 per 100,000 in 2000

2010 Target: 4 per 100,000

Mid-Decade Status: 5.1 per 100,000 in 2004

![Graph showing hospitalization rate per 100,000 for peptic ulcer disease, Kentucky, 2000-2004](Source: Hospital Inpatient Discharge Database)

Figure 22.6 Hospitalization Rate per 100,000 for Peptic Ulcer Disease, Kentucky, 2000-2004
• Continue to educate health care providers and consumers concerning the possibility of a cure for ulcers using appropriate antibiotics

22.10. Achieve immunization coverage of at least 90 percent among children 19-35 months of age for the following:
• 4 DTaP, 3 polio, 1 MMR, 3 Hib, 3 Hepatitis B
• 1 dose of varicella vaccine.
• Also known as 4:3:1:3:3:1

**Data Source:** National Immunization Survey.

<table>
<thead>
<tr>
<th>Coverage Rate</th>
<th>Baseline</th>
<th>2010 Target</th>
<th>Mid-Decade Status 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. National</td>
<td>72.8+0.9%</td>
<td>90%</td>
<td>74.5+0.9%</td>
</tr>
<tr>
<td>Kentucky</td>
<td>77.0+5.2%</td>
<td>90%</td>
<td>81.2+5.9%</td>
</tr>
</tbody>
</table>

**Strategies to Achieve Objective:**

• Continue enforcing all existing laws and regulations concerning immunization, including the varicella regulation introduced in 2002
• Extend the immunization information system to all immunization providers statewide and promote its use for reminder and recall by way of a population based immunization registry

22.11. Achieve immunization coverage of 95 percent of children in licensed day care facilities and children in kindergarten for the following immunization-preventable diseases:

**Data Source:** Annual School Survey completed by the Immunization Program

<table>
<thead>
<tr>
<th>Type of Immunization</th>
<th>Licensed Day Care Facilities</th>
<th>Kindergarten</th>
<th>2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diphtheria-tetanus-pertussis (4 doses, at least 1 on or after age 4)</strong></td>
<td>91% (Baseline and Mid-Decade Status 2004)</td>
<td>96.3% (Baseline and Mid-Decade Status 2004)</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Measles, mumps, rubella (2 doses for kindergarten, 1 dose for children over 16 months of age in day care)</strong></td>
<td>93.9%</td>
<td>95.6%</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Haemophilus influenzae type b (if under 5 years of age)</strong></td>
<td>95.7%</td>
<td>96.3%</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Hepatitis B (3 doses)</strong></td>
<td>94.6%</td>
<td>95.8%</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Varicella</strong></td>
<td>90.1%</td>
<td>84.5%</td>
<td>95%</td>
</tr>
<tr>
<td><strong>Polio (3 doses)</strong></td>
<td>92.8%</td>
<td>96.3%</td>
<td>95%</td>
</tr>
</tbody>
</table>
HK 2010 2010 Target: See chart

Baseline and Mid-Decade Status: See chart

Strategies to Achieve Objective:

- Same as for Objective 22.10

22.12. Increase to the following targets the rate of immunization coverage among the following adult groups.

Data Sources: Behavioral Risk Factor Surveillance System (BRFSS) for non-institutionalized adults; special surveys for long-term care and nursing homes.

<table>
<thead>
<tr>
<th>Group and Vaccine</th>
<th>Baseline</th>
<th>2010 Target</th>
<th>Mid-Decade Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-institutionalized adults 65 years of age or older</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>60.9 (2001)</td>
<td>75%</td>
<td>64.9% (2004)</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>55.1 (2001)</td>
<td>70%</td>
<td>57.7% (2004)</td>
</tr>
<tr>
<td>Institutionalized adults in long-term care facilities or nursing homes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>N/A</td>
<td>90%</td>
<td>84.1% (2004)</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>N/A</td>
<td>90%</td>
<td>74.6% (2004)</td>
</tr>
</tbody>
</table>

Baseline: See chart

2010 Target: See chart

Mid-Decade Status: See chart

Strategies to Achieve Objective:

- Educate health care providers and consumers concerning adult immunization
- If voluntary implementation in long-term care facilities and nursing homes does not appear likely to achieve the target, consider introduction of a regulation.

22.13. Maintain to at least 75 percent, the proportion of all tuberculosis patients who complete curative therapy within 12 months.

Data Source: TIMS

Baseline: 92.7 percent completed therapy in 1999

HK 2010 Target: 75 percent will complete therapy
Mid-Decade Status: 93.8 percent completed therapy in 2003

Strategies to Achieve Objective:

- Monitor and emphasize appropriateness of anti-tuberculosis drug regimens
- Maximize use of directly observed therapy

22.14. Increase to at least 75 percent the proportion of contacts, including other high-risk persons with tuberculosis infection (as defined by the Centers for Disease Control and Prevention), who complete courses of preventive therapy.

Data Source: TIMS
Baseline: 58.2 percent completed therapy in 2000
HK 2010 Target: 75 percent complete therapy
Mid-Decade Status: 63.5 percent completed therapy in 2003

Strategies to Achieve Objective:

- Monitor and emphasize completion of preventive therapy
- Maximize use of directly observed preventive therapy

22.15. (Developmental). Decrease to 50 the number of inappropriate rabies post-exposure prophylaxis, as defined by the current Advisory Committee on Immunization Practices (ACIP) guidelines.

Data Source: KYEPHRS
Baseline: 111 in 2000
HK 2010 Target: 50
Mid-Decade Status: 75 in 2004
Data Needs: More consistent reporting and follow-up of cases

Strategies to Achieve Objective:

- Education of health care providers on rabies prophylaxis

22.16. (Developmental) **Increase to 50 percent the number of immunization providers who have systematically measured the immunization coverage levels in their practice population.**

Data Source: KYEPHRS

Baseline: Data are not currently available

Target: 50 percent

Mid-Decade Status: Data are not currently available

Data Needs: Currently, there are no data collected on the number of health care facilities that provide immunization, but with the implementation of the population based immunization registry that will be part of KYEPHRS, it will be possible to complete coverage level assessments on the providers who choose to participate in the registry.

Strategies to Achieve Objective:

- Continue to require at least annual coverage assessments of public immunization providers and bi-annual coverage assessments of VFC participating private providers
• Encourage private providers to perform assessments and offer assistance in the process
• Encourage participation in the immunization registry when available and/or consider legislation requiring participation

22.17. (Developmental) **Increase to 90 percent the number of children enrolled in a fully functional population-based immunization registry (birth through age 5).**

**Data Source:** Kentucky Immunization Program – Registry Coordinator

**Mid-Decade Status:** In the 2006, the Cabinet for Health and Family Services will pilot test a population-based immunization registry. The registry is web-enabled and will be made available to all public and private immunization providers statewide in the future. Professional education will be provided to promote use of the registry and to emphasize the need for children under six years old to be appropriately vaccinated and documented in the registry. The registry will possess full functionality to improve vaccine safety surveillance, to track routine vaccination coverage levels for adolescents, and to track the proportion of adults who are vaccinated annually against influenza and pneumococcal disease. The system architecture is designed to exchange information with other healthcare delivery systems in order to support essential public health functions in the Commonwealth of Kentucky and other states.

**Strategies to Achieve Objective:**

• Extend the availability of the immunization information system to all immunization providers statewide
• Emphasize benefits of the system to providers, e.g., easily available information on prior immunizations and automatic printing of immunization certificates

22.18. **Maintain at zero the number of cases of vaccine-associated paralytic polio.**

**Data Source:** KYEPHRS

**Baseline:** 0 in 2000

**HK 2010 Target:** 0

**Mid-Decade Status:** 0 (There have been no reported cases of vaccine-associated paralytic polio in Kentucky during this decade.)

**Strategies to Achieve Objective:**
Oral Polio vaccine (OPV) is no longer available in the United States; only IPV (Inactivated Polio Vaccine) is available.

Educate providers to be aware that other countries continue to provide OPV, and watch for signs of vaccine-associated paralytic polio in immigrants and report it as such.

22.19. Reduce to 48 hours the time it takes for a laboratory to confirm and report 75 percent of new tuberculosis cases who have not started drugs at the time of specimen collection.

22.19R. Increase to 75 percent the proportion of lab specimens on new tuberculosis cases that are confirmed in 48 hours or less.

Reason for Revision: The objective was revised to more accurately reflect the laboratory data collected and reported on tuberculosis cases.

Data Source: Laboratory Standard Operating Procedure Manual

Baseline: 50 percent in 48 hours in the year 2000

In 2000 the TB smear tests were being read in the Virology section. Reading of TB smear tests was transferred to the TB laboratory in January, 2003.

HK 2010 Target: 75 percent in 48 hours

Mid-Decade Status: 72% in 48 hours in the year 2005.

All smears are read and reported within 24 hours of specimen receipt; however, not all smears are positive. Those smears that are not positive require culture confirmation before treatment can be started. In accordance with the Mycobacteriology Laboratory Standard Operating Procedure Manual, all sputum specimens submitted for tuberculosis confirmation are processed using the Fluorchrome/acid-fast direct smear test and results are confirmed and reported to the submitting facility within 24 hours of receipt of the specimen.

Strategies to Achieve Objective:

- Routine use by state public health laboratory of best available and affordable state-of-the-art tests
- Encourage other laboratories either to use such tests or to use the state public health laboratory

Terminology
Emerging infectious diseases: Diseases of infectious origin whose incidence in humans has increased within the past two decades or threatens to increase in the near future. Recognition of an emerging disease can occur because the disease is present in the population for the first time, the disease has been detected for the first time, or links between an infectious agent and a chronic disease or syndrome have been identified only recently, or the disease or infectious agent is increasing.

Influenza high-risk populations: (1) Persons older than 65 years; and (2) persons with chronic underlying disorders of the cardiovascular, pulmonary, or renal systems, as well as those with metabolic diseases (including diabetes mellitus), severe anemia, and compromised immune function.


References

- Recommendations of the Advisory Committee on Immunization Practices (ACIP) (issued on various dates by the Centers for Disease Control and Prevention).

Contributors

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- Jeff Brock, Ph.D., Immunization Registry Coordinator, Division of Epidemiology and Health Planning, Department for Public Health
- Meloney Russell, Assistant Director, Division of Laboratory Services, Department for Public Health
## 22. Immunizations and Infectious Diseases – Summary Tables

<table>
<thead>
<tr>
<th>Summary of Objectives for Immunizations and Infectious Diseases</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.1. Reduce indigenous cases of vaccine-preventable disease.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Congenital rubella syndrome</td>
<td>0 (2000)</td>
<td>0 (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Diphtheria (people &lt;35 years)</td>
<td>0</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenzae type b invasive disease (Includes unknown serotype)</td>
<td>7</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B (people &lt;18 years)</td>
<td>4</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Measles</td>
<td>0</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Mumps</td>
<td>1</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Pertussis (children &lt;7 years)</td>
<td>80</td>
<td>≤46</td>
<td>Yes</td>
<td>TIMS</td>
<td></td>
</tr>
<tr>
<td>Polio (wild-type virus)</td>
<td>0</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Rubella</td>
<td>0</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Tetanus (people &lt;35 years)</td>
<td>0</td>
<td>1</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
<td></td>
</tr>
<tr>
<td>Varicella (people &lt;35 years)</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>22.2. Reduce hepatitis A cases to an incidence of no more than 1.0 case per 100,000.</td>
<td>2/100,000 (1997)</td>
<td>≤1/100,000</td>
<td>0.8/100,000 (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>22.4. Reduce the hepatitis B rate to zero cases per 100,000 in persons less than 18 years of age (except perinatal infections).</td>
<td>0.4/100,000 (1998)</td>
<td>0</td>
<td>0 (2004)</td>
<td>Yes</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>22.5. Reduce hepatitis B cases per 100,000 in the following age groups:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25-39 years</td>
<td>3.1/100,000 (1998)</td>
<td>≤3/100,000</td>
<td>0.9/100,000 (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>&gt;40 years</td>
<td>6/100,000 (1998)</td>
<td>≤1/100,000</td>
<td>0.9/100,000 (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>22.6. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.7. Reduce tuberculosis to an incidence of no more than 1.0 per 100,000.</td>
<td>5.3/100,000 (1998)</td>
<td>≤1/100,000</td>
<td>3.1/100,000 (2004)</td>
<td>Yes</td>
<td>TIMS</td>
</tr>
</tbody>
</table>
### Summary of Objectives for Immunizations and Infectious Diseases

<table>
<thead>
<tr>
<th>Objective</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.8. Limit the hospitalizations due to invasive pneumococcal infections to 9.8 per 100,000 persons less than 5 years of age and to 81.7 per 100,000 persons aged 65 and older.</td>
<td>&lt;5&lt;br&gt;15.4/100,000 (2000)&lt;br&gt;≤9.8/100,000&lt;br&gt;10.8/100,000 (2004)</td>
<td>Yes</td>
<td>HOSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.9. Limit hospitalizations for peptic ulcer disease to 4.0 per 100,000 population.</td>
<td>5/100,000 (2000)&lt;br&gt;≤4.0/100,000&lt;br&gt;5.1/100,000 (2004)</td>
<td>No</td>
<td>HOSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.10. Achieve immunization coverage of at least 90 percent among children 19-35 months of age for the following: &lt;br&gt;-4 DTaP, 3 polio, 1 MMR, 3 Hib, 3 hepatitis B &lt;br&gt;-1 dose of varicella vaccine &lt;br&gt;Also known as 4:3:1:3:3:1.</td>
<td>77.0%/+5.2% (2000)&lt;br&gt;≥90%/+5.9% (2004)</td>
<td>Yes</td>
<td>National Immunization Survey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.11. Achieve immunization coverage of 95 percent for children in licensed day care facilities and children in kindergarten for the following: &lt;br&gt;&lt;strong&gt;Kindergarten&lt;/strong&gt; &lt;br&gt;Diphtheria-tetanus-pertussis (4 doses, at least 1 on or after age 4)</td>
<td>96.3%/&lt;strong&gt;Target Achieved&lt;/strong&gt;</td>
<td>Annual School Survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (2 doses for kindergarten, 1 dose for children over 16 months of age in day care)</td>
<td>95.6%/&lt;strong&gt;Target Achieved&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemophilus influenzae type b (if under 5 years of age)</td>
<td>96.3%/&lt;strong&gt;Target Achieved&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
<td>95.8%/&lt;strong&gt;Target Achieved&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>84.5%/&lt;strong&gt;No&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polio (3 doses)</td>
<td>96.3%/&lt;strong&gt;No&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Licensed Day Care Facilities</strong> &lt;br&gt;Diphtheria-tetanus-pertussis (4 doses, at least 1 on or after age 4)</td>
<td>91%/&lt;strong&gt;No&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measles, mumps, rubella (2 doses for kindergarten, 1 dose for children over 16 months of age in day care)</td>
<td>93.9%/&lt;strong&gt;No&lt;/strong&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary of Objectives for Immunizations and Infectious Diseases</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>----------</td>
<td>----------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td><em>Haemophilus influenzae</em> type b (if under 5 years of age)</td>
<td>95.7%</td>
<td>≥95%</td>
<td>95.7%</td>
<td>Target Achieved</td>
<td></td>
</tr>
<tr>
<td>Hepatitis B (3 doses)</td>
<td>94.6%</td>
<td>≥95%</td>
<td>94.6%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Varicella</td>
<td>90.1%</td>
<td>≥95%</td>
<td>90.1%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Polio (3 doses)</td>
<td>92.8%</td>
<td>≥95%</td>
<td>92.8%</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>22.12. Increase to the following targets the rate of immunization coverage among the following adult groups.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Non-institutionalized adults 65 years of age or older</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>60.9% (2001)</td>
<td>≥75%</td>
<td>64.9% (2004)</td>
<td>Yes</td>
<td>BRFSS</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>55.1% (2001)</td>
<td>≥70%</td>
<td>57.7% (2004)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td><strong>Institutionalized adults in long-term care or nursing homes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Influenza vaccine</td>
<td>84.1% (2004)</td>
<td>≥90%</td>
<td>84.1% (2004)</td>
<td>N/A</td>
<td>Special surveys for long-term care</td>
</tr>
<tr>
<td>Pneumococcal vaccine</td>
<td>74.6% (2004)</td>
<td>≥90%</td>
<td>74.6% (2004)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>22.13. Maintain at least 75 percent the proportion of all tuberculosis patients who complete curative therapy within 12 months.</td>
<td>92.7% (1999)</td>
<td>≥75%</td>
<td>93.8% (2003)</td>
<td>Target Achieved</td>
<td>TIMS</td>
</tr>
<tr>
<td>22.14. Increase to at least 75 percent the proportion of contacts, including other high-risk persons with tuberculosis infection (as defined by the Centers for Disease Control and Prevention), who complete courses of preventive therapy.</td>
<td>58.2% (2000)</td>
<td>≥75%</td>
<td>63.5% (2003)</td>
<td>Yes</td>
<td>TIMS</td>
</tr>
<tr>
<td>22.15. (Developmental) Decrease to 50 the number of inappropriate rabies postexposure prophylaxis, as defined by current Advisory Committee on Immunization Practices (ACIP) guidelines.</td>
<td>111 (2000)</td>
<td>≤50</td>
<td>75 (2004)</td>
<td>Yes</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>22.16. (Developmental) Increase to 50 percent the number of immunization providers who have systematically measured the</td>
<td>Data not available</td>
<td>≥50%</td>
<td>Data not available</td>
<td>TBD</td>
<td>KYEPHRS</td>
</tr>
</tbody>
</table>

HK 2010 Mid-Decade Review
### Summary of Objectives for Immunizations and Infectious Diseases

<table>
<thead>
<tr>
<th>Objective Description</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Immunization coverage levels in their practice population.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22.17. (Developmental) Increase to 90 percent the number of children enrolled in a fully functional population-based immunization registry (birth through age 5).</td>
<td>No registry available</td>
<td>≥90%</td>
<td>Pilot to begin in 2006</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>22.18. Reduce to zero the number of cases of vaccine-associated paralytic polio.</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>22.19R. Increase to 75 percent the proportion of lab specimens on new tuberculosis cases that are confirmed in 48 hours or less.</td>
<td>50% in 48 hours (2000)</td>
<td>75% in 48 hours</td>
<td>72% in 48 hours (2005)</td>
<td>Yes</td>
<td>Laboratory Standard Operating Procedure Manual</td>
</tr>
</tbody>
</table>

R = Revised objective
N/A = Only baseline data are available. Not able to determine progress at this time.
TBD = To be determined. No reliable data currently exist.
23. Mental Health

Goal

Improve the mental health of all Kentuckians by ensuring appropriate, high-quality services informed by scientific research to those with mental health needs.

Overview

Mental illness is a term used for a group of disorders causing severe disturbances in thinking, feeling, and relating. Untreated, these disorders result in a substantially diminished capacity for coping with ordinary demands of everyday life. Mental illness can affect persons of all ages and can occur in any family.

To assure that persons most in need have access to services, the Department for Mental Health and Mental Retardation Services (DMHMRS) has identified specific groups of people, who, because of type or degree of disability, concomitant functional level, and financial need, are considered the most vulnerable and most in need of services. These people are also the most unlikely to be served by the private sector. The DMHMRS has committed financial and staff resources in order to assure priority program and fiscal responsiveness of the service system for adults with severe mental illness and children and youth with severe emotional problems.

Summary of Progress

The Kentucky General Assembly has passed important legislation in the past few years that has profoundly affected mental health, mental retardation, and substance abuse services. The Commission created by the legislation (HB 843) convened regular meetings throughout the Commonwealth since SFY 2001 and continued bringing together key stakeholders to monitor and upgrade plans for addressing service needs across the state.

House Bill 843 created the Kentucky Commission on Services and Supports for Individuals with Mental Illness, Alcohol and Other Drug Abuse Disorders, and Dual Diagnosis. This legislation also created fourteen regional councils organized by Regional MHMR Boards. Members include representatives of major state agencies (e.g. justice, social services) as well as consumers and other stakeholders. A planning process that began at the regional level, and was carried out during SFY 2001, culminated with a plan submitted to the Governor and the General Assembly on June 21, 2001. This plan (and annual updates) laid the groundwork for a budget request submitted for the SFY 2005 and 2006 biennium. The Commission charged eleven separate workgroups to provide in-depth study on various issues. Annual progress reports are submitted to the Governor on October 1 of each year.
Progress toward Achieving Each HK 2010 Objective

23.1. Increase the number of children with severe emotional disabilities (SED) who receive mental health services or coordinated interagency services from Regional MH/MR Boards or their subcontractors to 30 percent.

Data Source: KDMHMRS Client Data Set and Federal Prevalence Estimates

Baseline: In fiscal Year 1999, there were 10,566 people with severe emotional disabilities served (22 percent)

HK 2010 Target: 30 percent

Mid-Decade Status: 39 percent*

*NOTE: Percentages for all fiscal years changed due to the use of the 2000 US Census.

![Figure 23.1 Percent of SED Children Served by MHMR Boards, Kentucky, 1999-2004 (Source: KDMHMRS Client Data Set)](chart)

Strategies to Achieve Objective:

- Expand community-based services for children with SED through continued implementation of IMPACT Plus
- Expand community-based services for children with SED through other state and federally funded start-up initiatives
- Engage in collaborative efforts with other agencies that serve children
- Train community mental health center staff (or their subcontractors) in accurately coding for severe emotional disability and severe mental illness
- Expand full array of crisis stabilization services to all 14 mental health regions
- Continue development of a community medication support program
23.2. Increase the number of adults with severe mental illness (SMI) who receive mental health services from Regional MH/MR Boards or their subcontractors to 30 percent.

Data Source: DMHMRS client data set and federal prevalence estimates

Baseline: In fiscal year 1999, there were 20,449 people with severe mental illness served (28 percent).

HK 2010 Target: 30 percent

Mid-Decade Status: 37 percent*

*NOTE: Percentages for all fiscal years changed due to the use of the 2000 US Census.

![Figure 23.2 Percentage of SMI Adults Served by MH/MR Boards, Kentucky, 1999-2004](Source: DMHMRS Client Data Set)

Strategies to Achieve Objective:

- Expand community-based services for adults with SMI through other state and federally funded start-up initiatives
- Engage in collaborative efforts with other agencies that serve adults with SMI
- Train community mental health center staff and their subcontractors in accurately coding for SED and SMI in the client data set and assuring inter-rater reliability
- Prepare, submit, and follow-up on legislative budget requests for the expansion of core components of the community support service system including crisis stabilization units, housing supports, community medications support, wraparound funds, assertive community treatment and specialized homeless services

23.3. Increase by 5 percent the number of adults with severe mental illness (SMI) served by Regional MH/MR Boards (or their subcontractors) who are employed.
Data Source: DMHMRS client data set

Baseline: In Fiscal Year, 1999 there were 2,021 employed persons with mental illness (10 percent)

HK 2010 Target: 15 percent

Mid-Decade Status: 14 percent*

*NOTE: Percentages for all fiscal years changed due to the use of the 2000 US Census.

Figure 23.3 Percentage of Adults with Severe Mental Illness Who are Employed That Are Served by MH/MR Boards, Kentucky, 1999-2004 (Source: DMHMRS Client Data Set)

Strategies to Achieve Objective:

- In collaboration with Department of Vocational Rehabilitation, continue efforts with stakeholders in supported employment programs to identify and implement expansion opportunities
- Prepare, submit, and follow-up on legislative request for expansion of supported employment

23.4. Increase the number of referrals of adults with severe mental illness (SMI) from the Justice system to Regional MH/MR Boards or their subcontractors to 12 percent.

In the original baseline, the baseline was set higher than the actual. This was an error, and this objective now includes the new baseline.

Data Source: DMHMRS client data set

Baseline: 797 referrals from the Justice System for adults with SMI in 1999 (4 percent*) (corrected)

HK 2010 Target: 12 percent

Mid-Decade Status: 6 percent*
**Figure 23.4** Percentage of SMI Adults with Justice System Contact Served by MH/MR Boards, Kentucky, 1999-2004 (Source: DMHMR Client Data Set)

**Strategies to Achieve Objective:**

- Promote the establishment of diversion programs at the local level
- Improve justice systems staff knowledge of mental health issues through the provision of training opportunities
- Develop uniform referral form
- In collaboration with the Department of Corrections, plan for the development of alternative methods of providing the Least Restrictive Environment for evaluation and treatment of persons with severe mental illness who are involved with the criminal justice system.

23.5. **(Developmental) Increase the number of referrals of children with SED from the justice system to Regional MH/MR Boards or their subcontractors to 12 percent.**

**Data Source:** DMHMRS client data set

**Baseline:** No baseline data available at the drafting of the original report in 1999. However, a new referral option now includes the Department of Juvenile Justice. 565 referrals from the Justice System for children with SED in 1999 (5 percent) (corrected)

**HK 2010 Target:** 12 percent

**Mid-Decade Status:** 4 percent*

*NOTE: Percentages for all fiscal years changed due to the use of the 2000 US Census.
Strategies to Achieve Objective:

- Establish local program agreements between mental health and justice system
- Improve justice systems staff knowledge of mental health issues through the provision of training opportunities
- Develop uniform referral form
- Add source of referral codes for Department for Juvenile Justice and Court Designated Workers in client data set

23.6. (Developmental) Develop and implement a plan to improve the cultural competence of personnel within Kentucky’s mental health delivery system. Increase to 90 percent the number of facility and DMHMRS central office staff and to 75 percent the number of regional MH/MR Board staff, who have received cultural competency training.

Data Source: Attendance rosters, training logs, and required reports

<table>
<thead>
<tr>
<th>Staff</th>
<th>Baseline 1999</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facility</td>
<td>60</td>
<td>90</td>
<td>75</td>
</tr>
<tr>
<td>Central Office</td>
<td>50</td>
<td>90</td>
<td>90</td>
</tr>
<tr>
<td>MH/MR Board</td>
<td>TBD (new data element)</td>
<td>TBD</td>
<td>TBD (new data element)</td>
</tr>
</tbody>
</table>

Data Needs: Data on the MH/MR Boards are needed. This fiscal year, the Joint Committee for Information Continuity has implemented a new field to track required trainings including Cultural Competency.
Strategies to Achieve Objective:

- Require that cultural competency training be made a part of orientation training for all new facility and Regional MH/MR Board staff.
- Offer cultural competency training to central office staff on at least a semi-annual basis. Require that all new and current central office staff participate in this training at least annually.
- Obtain directives from the Commissioner of DMHMRS outlining these attendance requirements.
- Provide Training-of-Trainers opportunities, on an as needed basis, to facility and Regional MH/MR Board training representatives.
- Offer cultural training at statewide and regional meetings, including the annual Mental Health Institute and Choices and Changes Conference.
- As part of the new Cabinet for Health and Family Services (CHFS), the Equal Opportunity Compliance Branch has created the CHFS Cultural Diversity/Cultural Competency Training Committee which is coordinating the requirements of Executive Order 13166 and Section 601 of Title VI of the Civil Rights Act of 1964, 42 U.S.C.2000d, concerning services to people who have limited English proficiency (LEP) and cultural competency training. This included Train the Trainer Trainings for facilities and boards, as well as mandatory trainings for staff at the Central Office.

23.7. **By 2010, of families who have incomes less than 200 percent of the Federal Poverty Level (FPL), increase to 90 percent the number of children who are covered by mental health insurance.**

**Data Source:** Department of Insurance, DMS and the Robert Wood Johnson Foundation’s *Going Without: America’s Uninsured Children* August 2005

**Baseline:** In 1999, 423,813 (77 percent) of children through 18 with income under 200 percent of poverty had mental health insurance. Twenty-three percent (124,943 children) had no mental health insurance coverage.

**HK 2010 Target:** 90 percent

**Mid-Decade Status:** 89 percent
Strategies to Achieve Objective:

- Work collaboratively with the Department for Medicaid Services (DMS) in implementation of Phases I, II, and III of the Kentucky Children's Health Insurance Program (KCHIP)
- Assist DMS with KCHIP outreach and enrollment efforts
- Provide CMHC staff who primarily serve children with information related to Medicaid and KCHIP eligibility
- Continue collaboration with DMS in implementing managed behavioral health care
- Support mental health insurance parity

23.8. (Developmental) Form a consumer consortium of state consumer organizations for mutually beneficial activities.

Data Source: DMHMRS, Division of Mental Health and Substance Abuse, Recovery Services (formerly the Office for Consumer Advocacy).

Baseline: No consumer consortium

HK 2010 Target: Develop consumer consortium

Mid-Decade Status: No consumer consortium

Strategies to Achieve Objective:

- Conduct three general meetings to hold dialogue
- Incorporate consortium as a 501(c)3
- Obtain mutual employee benefits through the consortium

Meetings were held with the state consumer organizations to establish dialogue. After researching the issue, it was determined that incorporating the consortium as a 501(c)3 to obtain employee benefits was not feasible.
The administrative requirements for maintaining a 501(c)3 combined with complex health insurance regulations made this objective unobtainable. A number of these organizations offer individual/flexible employee benefit packages, however these packages are not consistent across agencies. A meeting will be held to revisit this issue. Also, these organizations participate on the Mental Health Consumer Advocacy Committee to discuss topics of mutual interest to consumers, family members and professionals.

23.9. (Developmental) **Develop a statewide consumer 5-year plan.**

**Data Source:** DMHMRS, Recovery Services (formerly the Office for Consumer Advocacy).

**Baseline:** No statewide consumer 5 year plan in 1999

**HK 2010 Target:** Develop a statewide consumer 5 year plan

**Mid-Decade Status:** No statewide consumer 5 year plan in 2005

**Strategies to Achieve Objective:**

- Hold meeting with core planning group.
- Conduct survey around the state.
- Develop master plan.
- Implement master plan.

Comprehensive statewide planning for services was initiated by the passage of the Kentucky Commission of Services and Supports for individuals with Mental Illness, Alcohol and Other Drug Abuse Disorders, and Dual Diagnoses (HB843) as well as through consumer participation on the Community Mental Health Services Performance Partnership Block Grant.

Through HB843, consumers participate on regional planning councils thus creating a mechanism for doing long-range, coordinated planning for mental health and substance abuse services encompassing both public and private sectors and including all the stakeholders in the process.

The Block Grant provides for the establishment of a recovery oriented, comprehensive, community-based system of mental health care for adults who have a severe mental illness, including case management, treatment, rehabilitation, employment, housing, educational, medical, dental, and other support services, which enables individuals to function in the community and reduces the rate of hospitalization.
23.10. Establish 13 regional consumer advocacy programs based on the prototype in Bowling Green, Kentucky.

Data Source: DMHMRS, Recovery Services (formerly the Office for Consumer Advocacy)

Baseline: There was one Regional Consumer Advocacy Program in 1999.

HK 2010 Target: 14 total programs including the program noted in the baseline

Mid-Decade Status: 0

Strategies to Achieve Objective:

- Obtain funding
- Provide two training sessions
- Assist in organizing each office
- Coordinate activities

Fully realizing this objective became problematic. Maintaining the prototype program in Bowling Green became cost prohibitive and the logistics of the Executive Director covering two fully functional offices was difficult. However, the Kentucky Consumer Advocacy Network (KY CAN) is in the process of developing a plan to establish affiliate chapters in each of the community mental health regions. It is envisioned that consumers will be identified in each region who can promote the advocacy and recovery work of KY CAN.

23.11. Increase the number of consumer and family self-help groups to 200 groups.

Data Source: DMHMRS, Recovery Services (formerly the Office for Consumer Advocacy) and Opportunities for Family Leadership (OFL)

Baseline: In fiscal year 1999, there were 25 consumer and family self-help groups.

HK 2010 Target: 200

Mid-Decade Status: 158
Strategies to Achieve Objective:

- Develop target communities
- Enlist facilitator
- Form groups
- Hold annual conference

23.12. Increase by 50 percent the number of regional parent coordinators.

Data Source: Office of Family Leadership

Baseline: In 1999, there were 20 regional parent coordinators.

HK 2010 Target: 30

Mid-Decade Status: 53
• Request funding in the biennium budget to fund half-time positions in each of the 14 mental health regions
• Offer technical assistance to RIAC who do not yet have a regional parent coordinator
• Ensure that family liaisons that can bill for therapeutic family support services under IMPACT Plus will continue to be able to bill under managed care
• Offer statewide forum for development and implementation

23.13. To increase by 24 percent the provision of annual services to victims of rape/sexual assault in order to promote an effective recovery and alleviate the emotional trauma associated with rape and sexual abuse. (See Revision)

23.13R. (REVISION) Increase by 10 percent the provision of annual services to victims of rape/sexual assault in order to promote an effective recovery and alleviate the emotional trauma associated with rape and sexual abuse.

**Reason for Revision:** The data definitions used by the Rape Crisis Centers changed in 2003; therefore, the baseline and target were revised.

**Data Source:** Department for Human Support, Division of Child Abuse/Domestic Violence Services

**Baseline:** In fiscal year 2003, there were 4,973 victims of rape or sexual abuse that received services at Rape Crisis Centers.

**HK 2010 Target:** 5,470

**Mid-Decade Status:** 4,635 in 2004

![Figure 23.9 Number of Victims of Rape or Sexual Abuse Served by Rape Crisis Centers, Kentucky, 2003 and 2004 (Source: Department for Human Support, Division of Child Abuse/Domestic Violence Services)](image-url)
Strategies to Achieve Objective:

- Expand counseling services to victims in rural and underserved areas
- Expand medical advocacy services to victims in rural and underserved areas
- Expand legal advocacy services to victims in rural and underserved areas

23.14. To increase by 46 percent the provision of services to family members and friends of victims of rape and sexual abuse. (See Revision)

23.14R. (REVISION) To increase by 10 percent the provision of services to family members and friends of victims of rape and sexual abuse.

Reason for Revision: The data definitions used by the Rape Crisis Centers changed in 2003; therefore, the baseline and target needed to be revised.

Data Source: Department for Human Support, Division of Child Abuse/Domestic Violence Services

Baseline: In 2003, services were provided to 1,856 family members and friends of victims of rape or sexual abuse.

HK 2010 Target: 2,042

Mid-Decade Status: 1,826 in 2004

Figure 23.10 Number of Family and Friends of Victims of Rape or Sexual Abuse Served by Rape Crisis Centers, Kentucky, 2003 and 2004 (Source: Department for Human Support, Division of Child Abuse/ Domestic Violence Services)
• Expand counseling services to family members and friends of victims in rural and underserved areas
• Expand medical advocacy services to family members and friends of victims in rural and underserved areas
• Expand legal advocacy services to family members and friends of victims in rural and underserved areas

23.15. Increase by 3 percent the number of persons educated within the Commonwealth regarding the incidence and dynamics of sexual assault in order to increase their understanding of this social problem and to prevent its occurrence. (See Revision)

23.15R. (REVISION) Increase by the number of persons educated within the Commonwealth regarding the incidence and dynamics of sexual assault in order to increase their understanding of this social problem and to prevent its occurrence.

Reason for Revision: In the original baseline, the baseline was set lower than the actual. This was an error, and the objective 23.15 now includes the new baseline and target.

Data Source: Department for Human Support, Division of Child Abuse/Domestic Violence Services

Baseline: In 1999, there were 153,034 participants of rape/sexual abuse education programs. (corrected)

HK 2010 Target: 217,962 (corrected)

Mid-Decade Status: 193,472 in 2004

![Figure 23.11](image-url) Participants of Rape/Sexual Abuse Education Programs at Rape Crisis Centers, Kentucky, 1999-2004 (Source: Department for Human Support, Division of Child Abuse/Domestic Violence Services)
Strategies to Achieve Objective:

- Establish relationships with community school personnel
- Implement education and prevention programs
- Educate local community members and professionals regarding rape and sexual abuse
- Improve relations with local community groups and local school systems to access citizens, professional, children and teens

The baseline data for this objective of 72,765 persons educated in 1999 should have been 153,034. State general funds for Rape Crisis Centers have not increased since 2001 and federal funding has decreased each year since 2000. Additionally, prevention efforts at the regional Rape Crisis Centers are moving away from one time, 50 minute education sessions. Centers are beginning to implement evidence based programs that seek to impact changes in attitudes, knowledge, beliefs and behavior, not just counting the numbers of participants in programs. This fundamental change in the way prevention education services are delivered will certainly impact the number of participants in the next five years.

23.16. (Developmental) Provide comprehensive and coordinated mental health services for victims of child sexual abuse and their families. (See Revision)

23.16R. (REVISION) Provide a 50 percent increase in comprehensive and coordinated mental health services for victims of child sexual abuse and their families.

Reason for Revision: This objective was misclassified as developmental. Data to track this objective were available at time of initial draft. This was an error, and the revision for objective 23.16 includes the new data source, baseline and target. However, the name of the field was later clarified for SFY 2006 to include Sexual Abuse in addition to Victim of Rape/Sexual Assault.

Data Source: DMHMRS Client Data Set

Baseline: Fiscal Year 1999, there were 3,581 sexually abused children (and their families) seen at the Regional MH/MR Boards.

HK 2010 Target: 5,372

Mid-Decade Status: 5,203
Figure 23.12 Sexually Abused Children and Their Families Seen at the Regional MH/MR Boards, Kentucky, 1999-2004 (Source: Department for Human Support, Division of Child Abuse/ Domestic Violence Services)

Strategies to Achieve Objective:

- The Department for Mental Health and Mental Retardation’s Sexual Abuse and Domestic Violence program will provide biannual meetings for each MH/MR Board’s designated child sexual abuse coordinator to provide an opportunity for networking and training.
- The Department for Mental Health and Mental Retardation Services will coordinate with other state agencies in providing quality mental health training in the area of child sexual abuse.
- Each MH/MR board will prioritize cases of child sexual abuse for provision of mental health services.
- Each MH/MR Board’s designated child sexual abuse coordinator will work with other community agencies to provide appropriate and comprehensive mental health treatment for victims of child sexual abuse and their family members.

23.17. (Developmental) **Provide comprehensive and coordinated mental health services for victims of domestic violence and their children.** *(See Revision)*

23.17R. (REVISION) **Provide a 75 percent increase in comprehensive and coordinated mental health services for victims of domestic violence and their children.**

**Reason for Revision:** This objective was misclassified as developmental. Data to track this objective was available at time of initial draft. This was an error, and the revision for objective 23.17 includes the new data source, baseline and target. However, the name of the field was later clarified for SFY 2006 from Physical Abuse to Domestic Abuse.

**Data Source:** DMHMRS client data set
Baseline: Fiscal Year 1999, there were 12,405 victims of domestic violence (and their children) seen at the Regional MH/MR Boards.

HK 2010 Target: 21,709

Mid-Decade Status: 21,146

Strategies to Achieve Objective:

- DMHMRS will coordinate with other state agencies in providing quality mental health training in the area of domestic violence.
- Each MH/MR Board will prioritize cases of domestic violence for provision of mental health services.
- Each MH/MR Board’s mental health professionals will work to provide comprehensive mental health treatment for victims of domestic violence and their children.
- MH/MR Board mental health professionals will collaborate with other professional agencies, including the local spouse abuse shelters and local domestic violence councils, to address the multi–faceted needs of victims of domestic violence.
- DMHMRS will certify mental health professionals to provide court-ordered domestic violence offender treatment to ensure the goal of victim safety.

Terminology

Co-morbidity: The presence of two or more coexisting disorders. In this document, the term refers to the co-occurrence of mental illness and substance abuse disorders or physical illness.

Cultural competence: A set of knowledge, skills, and attitudes that allows individuals, organizations, and systems to work effectively with diverse racial, ethnic, religious, and social groups.
Disability-Adjusted Life Years: The sum of the number of years lost due to premature death and the years of life lived with a disability.

Homeless: An individual (whether a member of a family or not) who lacks housing, including an individual in transitional housing or whose primary residence during the night is a supervised public or private facility that provides temporary living accommodations.

Juvenile justice facility: Such facilities include the following entities, as defined by the Office of Juvenile Justice and Delinquency Prevention: detention centers, shelters, reception or diagnostic centers, training schools, ranches, forestry camps or farms, halfway houses and group homes, and residential treatment centers.

Mental health services: Diagnostic, treatment, and preventive interventions designed to help improve the behavioral, physical, emotional, and social functioning of individuals with or at risk of mental illnesses.

Mental illness: Any one of an array of clinically significant behavioral or psychological syndromes, each of which ranges along a continuum of severity and manifests through specific, distinguishing, psychologic or behavioral distress (and, frequently, concomitant impairment in functioning). They may arise without regard to age, gender, or ethnicity, as a product of genetic, biological, environmental, social, physical, or behavioral factors, acting alone or in combination.

Screening for mental health problems: A brief formal or informal process designed to identify individuals with or at risk of diagnosable mental health problems to determine whether further evaluation is needed and, if indicated, to link the individual to the most appropriate and available mental health services.

Serious emotional disturbances (SED): Persons from 0 to 18 years with a diagnosable mental disorder of such severity and duration as to result in functional impairment that substantially interferes with or limits functioning in family, school, community, or other major life activities.

Serious mental illness (SMI): Persons aged 18 or over with a diagnosable mental disorder of such severity and duration as to result in functional impairment that substantially interferes with or limits major life activities.

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• Supported Employment for People with Severe Mental Illness: A Review by Gary R. Bond, Robert E. Drake, Kim T. Mueser, and Deborah R. Becker, (Submitted for publication: 4/12/96 by Gary R. Bond, Department of Psychology, IU/PU Indianapolis, 402 North Blackford St., Indianapolis, IN 46202-3275.)

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- Hope Barrett, MA, Mental Health Data Infrastructure Project Manager, DMHMRS, Division of Administration and Financial Management, Research, Evaluation and Training Branch
## 23. Mental Health – Summary Tables

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<tr>
<td>23.1. Increase the number of children with severe emotional disabilities (SED) who receive mental health services or coordinated interagency services from Regional MH/MR Boards or their subcontractors to 30 percent.</td>
<td>22% (1999)</td>
<td>30%</td>
<td>39% (2004)</td>
<td>Target Achieved</td>
<td>DMHMRS Client Data Set</td>
</tr>
<tr>
<td>23.2. Increase the number of adults with severe mental illness (SMI) who receive mental health services from Regional MH/MR Boards or their subcontractors to 30 percent.</td>
<td>28% (1999)</td>
<td>30%</td>
<td>37% (2004)</td>
<td>Target Achieved</td>
<td>DMHMRS Client Data Set</td>
</tr>
<tr>
<td>23.3. Increase by 5 percent the number of adults with severe mental illness (SMI) served by Regional MH/MR Boards (or their subcontractors) who are employed.</td>
<td>10% (1999)</td>
<td>15%</td>
<td>14% (2004)</td>
<td>Yes</td>
<td>DMHMRS Client Data Set</td>
</tr>
<tr>
<td>23.4. Increase the number of referrals of adults with severe mental illness (SMI) from the justice system to Regional MH/MR Boards or their subcontractors to 12 percent.</td>
<td>4% (1999)</td>
<td>12%</td>
<td>6% (2004)</td>
<td>Yes</td>
<td>DMHMRS Client Data Set</td>
</tr>
<tr>
<td>23.5. (Developmental) Increase the number of referrals of children with SED from the justice system to Regional MH/MR Boards or their subcontractors to 12 percent.</td>
<td>5% (1999)</td>
<td>12%</td>
<td>4% (2004)</td>
<td>No</td>
<td>DMHMRS Client Data Set</td>
</tr>
<tr>
<td>23.6. (Developmental) Develop and implement a plan to improve the cultural competence of personnel within Kentucky’s mental health delivery system. Increase to 90 percent the number of facility and DMHMRS central office staff and to 75 percent the number of regional MH/MR Board staff, who have received cultural competency training.</td>
<td>Facility: 60% (1999)</td>
<td>90%</td>
<td>75% (2004)</td>
<td>Yes</td>
<td>Training Logs</td>
</tr>
<tr>
<td></td>
<td>Central Off: 50% (1999)</td>
<td>90%</td>
<td>90% (2004)</td>
<td>Target Achieved</td>
<td></td>
</tr>
<tr>
<td>23.7. By 2010, of families who have incomes less than 200 percent of the Federal Poverty Level (FPL), increase to 90 percent the number of children who are covered by mental health insurance.</td>
<td>77% (1999)</td>
<td>90%</td>
<td>89% (2003)</td>
<td>Yes</td>
<td>Dept. of Insurance</td>
</tr>
<tr>
<td>Summary of Objectives for Mental Health</td>
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R = Revised objective
DHMHMRS = Department for Mental Health and Mental Retardation Services
*NOTE: Percentages for all fiscal years changed due to the use of the 2000 US Census.
24. Respiratory Diseases

Goal

Increase education and awareness in Kentucky about the signs and symptoms of lung diseases, specifically asthma, chronic lower respiratory disease (CLRD), and obstructive sleep apnea (OSA). Promote lung health through better detection, treatment, and management.

Overview

Asthma is one of the most common chronic diseases in the United States, affecting more than 20 million people. In Kentucky, it affects 9.8 percent of the adult population, approximately 400,000 Kentuckians. Additionally, asthma affects nearly 10 percent of the population younger than 18 years of age. The exact cause or causes of asthma are not yet known; however, genetic and environmental factors can exacerbate symptoms and lead to an asthma episode or attack. Factors that can trigger an asthma attack include allergens (such as pet dander, dust mites, mold, pollen, and food allergies), secondhand tobacco smoke, exercise, strong odors, and cold weather.

The successful management and control of asthma leads to improved quality of life and decreased adverse outcomes, including asthma episodes and attacks, hospitalizations, emergency room visits, and missed school or work days. This reduction in adverse outcomes also translates into a reduction in the economic impact of asthma. The effective management of asthma includes reducing exposure to asthma triggers, adequately managing asthma with medicine, monitoring asthma using objective measures of lung function, and education of asthma patients to be responsible for their own care.

CLRD, also referred to as chronic obstructive pulmonary disease (COPD), continues to affect the health of Kentuckians. COPD was changed to CLRD in 1999 with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports. CLRD is characterized by the presence of airflow obstruction due to chronic bronchitis and emphysema, two diseases that often coexist. Most people with CLRD are current or former smokers. There is no cure for CLRD. It is one of the most common respiratory conditions of adults and is the fourth leading cause of death in the United States. Obstructive sleep apnea (OSA) is an illness characterized by snoring, partial or complete cessation of breathing during sleep, reductions in blood oxygen levels, severe sleep fragmentation, and excessive daytime sleepiness. If left untreated, sleep apnea can increase the risk for high blood pressure, diabetes, a heart attack or stroke, work-related accidents, and driving accidents.

Summary of Progress
The burden of asthma in Kentucky remains as evidenced by the increase in adult asthma prevalence from 7.8% in 2000 to 8.3% in 2004. However, the target was achieved for objective 24.1, which measures asthma mortality. The age-adjusted asthma death rate declined from 20 per million in 1997 to 13 per million in 2003. Objective 24.3R requires that a statewide surveillance system be established for asthma, and data sources have been identified and utilized to develop several surveillance documents. The CLRD hospitalization rate, Objective 24.4R, is well below the 2010 target. The asthma hospitalization rate and asthma prevalence rate (Objective 24.2R) have both increased since this document was originally developed, but the Department for Public Health, the Kentucky Asthma Partnership, and other partner agencies are dedicated to securing resources that will help support a reduction in these outcomes. Resources to address the remaining objectives are limited; however, strategies are provided that will move these objectives toward the 2010 targets.

The Kentucky Asthma Partnership, its member agencies, and its partners continue to seek funding, educational and awareness materials, and other resources that will help reduce the burden of asthma in Kentucky.

Progress toward Achieving Each HK 2010 Objective

24.1. Reduce the asthma death rate to no more than 14 per million population.

Data Source: Kentucky Vital Statistics Surveillance System, Data are age-adjusted to year 2000 standard.

Baseline: 20 per million population in 1997

HK 2010 Target: 14 per million population

Mid-Decade Status: 13 per million population in 2003

Figure 24.1 Asthma Death Rate per Million Population, Kentucky, 2000 - 2003 (Source: Kentucky Vital Statistics Surveillance System)
Strategies to Achieve Objective:

- Promote awareness and use of the National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma
- Promote the use of written asthma management plans

24.2. (Developmental) **Reduce the overall asthma morbidity, as measured by a reduction in the asthma hospitalization rate to 10 per 10,000 people. (See Revisions)**

24.2.1R. (REVISION) Reduce the asthma hospitalization rate to 10 per 10,000 population.

**Reason for Revision:** This objective can be split into two objectives that measure asthma morbidity: hospitalizations and prevalence.

**Data Source:** Hospital Inpatient Discharge Database

**Baseline:** 15.5 per 10,000 population in 2000

**HK 2010 Target:** 10 per 10,000 population

**Mid-Decade Status:** 17.6 per 10,000 population in 2004

![Figure 24.2 Hospitalizations due to Asthma per 10,000 population, Kentucky, 2001 - 2004](Source: Hospital Inpatient Discharge Database)
• Develop a community-based asthma prevention model using a coalition of local health departments, local family resource centers, agricultural extension services, school systems, and health care providers
• Promote awareness and use of the National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma
• Increase education among persons with asthma, healthcare providers, and childcare workers
• Urge Medicaid managed care programs, KCHIP, and other health insurance providers to focus on asthma prevention and education programs
• Work with the Kentucky Department of Education to implement an asthma education program in all schools for students, faculty, staff, and administration
• Develop a public media campaign about the role of secondhand smoke as a major asthma trigger

24.2.2R. (REVISION) Reduce the adult asthma prevalence to 6.8 percent.

Reason for Revision: In the original objective, the only data available to measure asthma morbidity were from inpatient hospitalizations. Since the original version of this document, asthma questions have been added to the Behavioral Risk Factor Surveillance System, BRFSS, providing a data source for asthma prevalence.

Data Sources: BRFSS. Refused and unknown responses are excluded. The BRFSS only surveys adults aged 18 and over, so childhood asthma prevalence is not available.

Baseline: 7.8 percent of Kentucky adults in 2000

HK 2010 Target: 6.8 percent of Kentucky adults

Mid-Decade Status: 8.3 percent of Kentucky adults in 2004
Strategies to Achieve Objective:

- Develop a community-based asthma prevention model using a coalition of local health departments, local family resource centers, agricultural extension services, school systems, and health care providers
- Promote awareness and use of the National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma
- Increase education among persons with asthma, healthcare providers, and childcare workers
- Urge Medicaid managed care programs, KCHIP, and other health insurance providers to focus on asthma prevention and education programs
- Work with the Kentucky Department of Education to implement an asthma education program in all schools for students, faculty, staff, and administration
- Develop a public media campaign about the role of secondhand smoke as a major asthma trigger

24.3. (Developmental) Establish an asthma surveillance system for tracking asthma morbidity, hospitalization, and mortality.

Data Sources: BRFSS (Refused and unknown responses are excluded. The BRFSS only surveys adults aged 18 and over, so childhood asthma prevalence is not available.); Kentucky Inpatient Hospitalization Claims; Kentucky Vital Statistics. These data sources do not provide reliable prevalence estimates for childhood asthma in Kentucky.
**Baseline:** No comprehensive system is currently available; however a partial system was in place by 2005.

**Mid-Decade Status:** Descriptive epidemiologic data from the BRFSS, Kentucky Inpatient Hospitalization Claims, and Kentucky Vital Statistics have been used in one surveillance report, two Kentucky Epidemiologic Notes and Reports articles, and two grant applications.

**Strategies to Achieve Objective:**

- Continue to use the BRFSS (current asthma prevalence), hospitalization data (primary diagnosis using ICD-9 codes 493-493.92), and vital statistics data (asthma is primary cause of death) to monitor asthma in Kentucky.
- Partner with the Kentucky Department of Education to obtain and analyze the asthma data from the Youth Risk Behavior Survey and other school surveys that assess asthma among school-age children.
- Partner with Medicaid to obtain and analyze data on asthma hospitalizations, emergency room visits, and medication use.

24.4. (Developmental) **Reduce the COPD rate to no more than 100 per 10,000 population. (See Revision)**

24.4R. (REVISION) **Reduce the CLRD hospitalization rate to no more than 56 per 10,000 population.**

**Reason for Revision:** COPD was changed to CLRD in 1999 with the introduction of ICD-10 codes. CLRD is used in vital statistics reporting, but COPD is still widely used and commonly found in surveillance reports.

This objective did not originally specify the rate as a hospitalization rate. Additionally, the data for the original 1996 baseline was flawed. The baseline has been revised to reflect the 2000 data. The target has been set one unit below the baseline.

**Data Source:** Kentucky Hospital Inpatient Discharge Database

**Baseline:** 57 per 10,000 population in 2000

**HK 2010 Target:** 56 per 10,000 population

**Mid-Decade Status:** 68.3 per 10,000 population in 2003

*Data based on ICD-9 Codes 490-492, 493, 494, 495, 496
Strategies to Achieve Objective:

- Support the current education efforts geared to increasing the number of smokers participating in smoking cessation programs
- Support the current efforts to prevent smoking in youth

24.5. (Developmental) **Reduce the COPD death rate for adults to no more than 18 per 100,000 population.** (See Revision)

24.5R. (REVISION) Reduce the CLRD death rate for adults to no more than 55 per 100,000 population.

**Reason for Revision:** COPD is now reported as CLRD

**Data Source:** Kentucky Vital Statistics Surveillance System, Data are age-adjusted to year 2000 standard.

**Baseline:** 52.4 per 100,000 in 2001

**HK 2010 Target:** 51.4 per 100,000

**Mid-Decade Status:** 58.9 per 100,000 in 2002
Strategies to Achieve Objective:

- Support the current education efforts to increase participation of smokers in science-based smoking cessation programs
- Support the current efforts to prevent youth initiation of smoking

24.6. (Developmental) Establish a COPD surveillance system for tracking COPD morbidity, hospitalizations, and mortality. (DELETED)

Reason for Deletion: No agencies or organizations currently dedicate resources to develop and establish a CLRD surveillance system. Additionally, this type of surveillance system would be difficult and costly to develop and implement.

24.7. (Developmental) Establish an obstructive sleep apnea (OSA) surveillance system for tracking OSA morbidity, hospitalization, and mortality. (DELETED)

Reason for Deletion: No agencies or organizations currently dedicate resources to develop and establish an OSA surveillance system. Additionally, this type of surveillance system would be difficult and costly to develop and implement.

24.8. (Developmental) Increase to six hours the average number of hours that medical school curricula devoted to training medical students in sleep medicine. (DELETED)

Reason for Deletion: It is not clear whether any data exist to measure this objective.
Terminology

Asthma: A lung disease characterized by narrowing of the airways resulting in recurring episodes or attacks of wheezing, shortness of breath, chest tightness, and cough.

Chronic obstructive pulmonary disease: COPD is characterized by the presence of airflow obstruction due to chronic bronchitis and emphysema, two diseases that often coexist. There is no cure for COPD. It is one of the most common respiratory conditions of adults and is the fourth leading cause of death in the United States. The Kentucky mortality rate exceeds that of the United States.

Obstructive sleep apnea: OSA is an illness characterized by snoring, partial or complete cessation of breathing during sleep, reductions in blood oxygen levels, severe sleep fragmentation, and excessive daytime sleepiness. If left untreated, sleep apnea can increase the risk for high blood pressure, diabetes, a heart attack or stroke, work-related accidents, and driving accidents.

References

- Behavioral Risk Factor Surveillance System, 2000-2004
- National Health Interview Survey, 1995
- National Asthma Education and Prevention Program Expert Panel Report 2: Guidelines for the Diagnosis and Management of Asthma
- Kentucky Inpatient Hospitalization Claims, 2001-2004

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24. Respiratory Diseases – Summary Table

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<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.2.1R. Reduce the asthma hospitalization rate to 10 per 10,000 population</td>
<td>15.5/ 10,000 (2001)</td>
<td>≤10/ 10,000 (2003)</td>
<td>17.6/ 10,000 (2004)</td>
<td>No</td>
<td>HOSP</td>
</tr>
<tr>
<td>24.2.2R. (Developmental) Reduce the adult asthma prevalence to 6.8 percent</td>
<td>7.8% (2000)</td>
<td>≤6.8% (2003)</td>
<td>8.3% (2004)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>24.3R. (Developmental) Establish an asthma surveillance system for tracking asthma morbidity, hospitalizations, and mortality</td>
<td>No system</td>
<td>System in place</td>
<td>Partial system in place</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>24.4R. (Developmental) Reduce the Chronic Lower Respiratory Disease (CLRD) hospitalization rate to no more than 56 per 10,000 population</td>
<td>57/ 10,000 (2000)</td>
<td>≤56/ 10,000 (2003)</td>
<td>68.3/ 10,000 (2004)</td>
<td>No</td>
<td>HOSP</td>
</tr>
<tr>
<td>24.5R. (Developmental) Reduce the CLRD death rate for adults to no more than 55 per 100,000 population</td>
<td>52.4/ 100,000 (2001)</td>
<td>≤51.4/ 100,000 (2002)</td>
<td>58.9/ 100,000 (2003)</td>
<td>No</td>
<td>Vital Statistics</td>
</tr>
<tr>
<td>24.6. – 24.8. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective
25. Sexually Transmitted Diseases

Goal

A society where healthy sexual relationships free of infection is the standard.

Overview

In 2004, sexually transmitted disease (STD), specifically chlamydia and gonorrhea, remained among the top ten most frequently reported communicable diseases in Kentucky. Also of significance was the number of persons diagnosed with AIDS/HIV disease and patients reported with infectious (primary or secondary) syphilis. Because of the frequency of asymptomatic disease, screening programs are of vital importance in controlling gonorrhea and chlamydia infections. Screening programs for gonorrhea using the culture method were begun in Kentucky in the late 1960s. Programs were expanded to include screening for chlamydia infection in the late 1980s via an improved testing modality known as nucleic acid probes which enabled testing for both infections from the same specimen. Further refinement in the nucleic acid probe technique has led to the development of amplified nucleic acid probe testing (a more sensitive screening test) which enables detection of chlamydia and gonorrhea from both urine specimens as well as from specimens collected from exposed sites.

The medical management of patients diagnosed with chlamydia, gonorrhea, and early syphilis (and their sexual partners) has been greatly enhanced by the use of single-dose regimens for treatment which have been in use since the early 1990s.

Sustained transmission of syphilis does not occur in most parts of Kentucky, but sporadic outbreaks continue to occur. Seventy one patients were diagnosed with early syphilis in Kentucky in calendar year 2004. The early syphilis cases were patients who had their infection less than one year and who potentially could have spread infection to their sexual partner(s). Only 14 (11.7 percent) of Kentucky’s 120 counties reported early syphilis cases in 2004. Jefferson county residents accounted for 48 (67.6 percent) of the total, and residents of Fayette county were a distant second in reports with 7 cases (9.9 percent).

Summary of Progress

The incidence of chlamydia, gonorrhea, and syphilis has decreased from 2000 to 2004. In 2004 based on a population of 4,145,922 and 6470 chlamydia case reports, the incidence rate was 156.1 per 100,000 population. In 2003 the rate was 216.6 per 100,000 (8756 cases were reported). In 2004, 2758 gonorrhea cases were reported among Kentuckians for a rate of 66.5 per 100,000 population. Use of the more sensitive amplified nucleic acid probe test for gonorrhea detection will likely result in an
increased number of cases detected and an increased incidence rate for gonorrhea through 2008.

Based on 47 primary and secondary syphilis cases reported in 2004, the rate per 100,000 population was 1.8 compared with 0.82 in 2003 when 33 cases were reported. Sporadic outbreaks in sub-populations in urban areas will likely continue. One case of congenital syphilis in a neonate was reported in calendar year 2004 among 53,654 recorded live births for a rate of only 1.8 per 100,000 live births.

Progress toward Achieving Each HK 2010 Objective

25.1. Reduce the incidence of *Chlamydia trachomatis* infections to no more than 140 cases per 100,000 population.

Data Source: Kentucky Electronic Public Health Records System (KYEPHRS)

Baseline: 197.8 per 100,000 in 2000

HK 2010 Target: 140 per 100,000

Mid-Decade Status: 156.1 per 100,000 in 2004

Strategies to Achieve Objective:

- Continue screening programs in local health department prenatal, family planning, cancer screening, and STD clinics
- Ensure that male and female patients presenting with urethritis or cervicitis in local health departments are provided with a regimen of therapy adequate to treat both gonorrhea and chlamydia infection
• Counsel every patient about the need to refer recent sex partners for examination
• Educate providers other than health departments to adopt similar screening and referral measures
• Develop quality assurance measures and testing incentives to help providers apply the above measures, especially to groups with elevated risk of infection

25.2. Reduce the incidence of gonorrhea to no more than 55 per 100,000 population.

Data Source: KYEPHRS

Baseline: 99.3 per 100,000 in 2000

HK 2010 Target: 55.0 per 100,000

Mid-Decade Status: 66.5 per 100,000 in 2004

![Gonorrhea Incidence per 100,000, Kentucky, 2000-2004, (Source: KYEPHRS)](image)

Strategies to Achieve Objective:

• Same as for chlamydia--Objective 25.1.

25.3. Reduce the incidence of primary and secondary syphilis to no more than 0.27 cases per 100,000 population.

Data Source: KYEPHRS

Baseline: 2.1 per 100,000 in 2000

HK 2010 Target: 0.27 per 100,000
Mid-Decade Status: 1.8 per 100,000 in 2004

Strategies to Achieve Objective:

- Interview all patients diagnosed with infectious or early syphilis disease; rapidly refer all sex partners for examination and treatment
- Ensure increased condom distribution and risk-reduction interventions in areas of elevated infectious syphilis incidence (as compared to the rest of the state)
- Offer syphilis testing within 5 days of incarceration in areas of elevated incidence
- Ensure prompt reporting by laboratories of reactive syphilis serologies and immediate follow-up on those with the greatest potential for infectious case detection

25.4. Reduce the incidence of congenital syphilis to a level not exceeding 2 cases per 100,000 live births.

Data Source: KYEPHRS

Baseline: 11.4 per 100,000 live births in 1997

HK 2010 Target: 2 per 100,000 live births

Mid-Decade Status: 1.8 per 100,000 live births in 2004

Strategies to Achieve Objective:

- Ensure that follow-up of pregnant patients with reactive serologies is begun within 24 hours of receipt of the lab report
- Follow every reactive serology to a medical disposition
- Ensure that every pregnant woman with syphilis is adequately treated and that recent sexual partners are provided with examination and treatment as needed
- Encourage public and private health care providers to obtain third trimester syphilis tests on all pregnant patients considered at risk for syphilis infection

25.5. (Developmental) Reduce by 30 percent the incidence of neonatal chlamydia pneumonia and chlamydia ophthalmia neonatorum and by 55% the incidence of gonococcal ophthalmia neonatorum. (See Revision)

25.5R. (REVISION) Reduce to 0 the incidence of chlamydial ophthalmia neonatorum and gonococcal ophthalmia neonatorum.
Reason for Revision: The objective for chlamydial pneumonia is omitted because the incidence cannot be adequately determined. The targets were changed for chlamydial ophthalmia neonatorum and gonococcal ophthalmia neonatorum because at baseline there was only one case for each condition.

Data Source: KYEPHRS

Baseline:
chlamydial ophthalmia neonatorum: 1.8 per 100,000 live births in 2000
gonococcal ophthalmia neonatorum: 1.8 per 100,000 live births in 2000

HK 2010 Target: 0

Mid-Decade Status:
chlamydial ophthalmia neonatorum: 0 cases in 2004
gonococcal ophthalmia neonatorum: 0 cases in 2004

Strategies to Achieve Objective:

- Ensure that all local health department prenatal patients are screened in the first and third trimesters of pregnancy and that those who test positive are immediately returned for treatment
- Ensure that recent sex partners (those within the past 60 days) of the infected prenatal patient are located quickly and referred for examination and treatment
- Educate providers other than public health care providers to adopt similar procedures
- Develop quality assurance measures and testing incentives to assist providers in implementing the above procedures

25.6. (Developmental) Increase by 50 percent the proportion of schools serving youth in grades 7-12 in which STD detection, treatment, and counseling is available onsite or through referral arrangements made with other providers. (DELETED)

Reason for Deletion: Ongoing efforts are made and will be continued, but establishing onsite treatment and counseling at schools would be very unlikely.

25.7. (Developmental) Increase by 50 percent the proportion of Medicaid Managed Care Partnership agreements or Medicaid contracts ensuring coverage and provider reimbursement for STD prevention counseling, STD screening of individuals, and, when
indicated, their treatment and treatment of their sex partners. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future

25.8. (Developmental) Increase to at least 50 percent the number of schools for health providers (medical, osteopathy, nursing, family planning nurse practitioners, nurse midwives, and physician assistants) with both required sexual health teaching and clinical experience in STD services. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

25.9. (Developmental) Increase by 25 percent the proportion of sexually active women under the age of 25 who are screened annually for genital chlamydia infection in family planning clinics (other than in health departments), community health centers, university health centers, Department of Defense health clinics for active duty military personnel, and managed care plans. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

25.10. (Developmental) Decrease by 50 percent the proportion of pregnant women not screened for chlamydia and gonorrhea during prenatal visits in community health centers, Department of Defense clinics for active military personnel, and managed care plans. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

25.11. (Developmental) Increase by 50 percent the number of youth detention facilities and adult city or urban county jails and rural jails in counties with STD incidence above the state average in which screening for common bacterial STDs is conducted within 5 days of admission and treatment, when necessary, is provided before release. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

Contributors
• David Raines, Manager, Kentucky STD Program, Department for Public Health, Chapter Coordinator
• George DeRoller, Assistant Manager, Kentucky STD Program, Kentucky Department for Public Health
• Barry Wainscott, MD, MPH, Former Manager, KY Communicable Disease Branch, Department for Public Health
# 25. Sexually Transmitted Diseases – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives for Sexually Transmitted Diseases</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.1. Reduce the incidence of <em>Chlamydia trachomatis</em> infections to no more than 140 cases per 100,000 population.</td>
<td>197.8/100,000 (2000)</td>
<td>≤140/100,000</td>
<td>156.1/100,000 (2004)</td>
<td>Yes</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>25.2. Reduce the incidence of gonorrhea to no more than 55 per 100,000 population.</td>
<td>99.3/100,000 (2001)</td>
<td>≤55/100,000</td>
<td>66.5/100,000 (2004)</td>
<td>Yes</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>25.3. Reduce the incidence of primary and secondary syphilis to no more than 0.27 cases per 100,000 population.</td>
<td>2.1/100,000 (2000)</td>
<td>≤0.27/100,000</td>
<td>1.8/100,000 (2004)</td>
<td>Yes</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>25.4. Reduce the incidence of congenital syphilis to a level not exceeding 2 cases per 100,000 live births.</td>
<td>11.4/100,000 (1997)</td>
<td>≤2/100,000</td>
<td>1.8/100,000 (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td>25.5R. Reduce to 0 the incidence of chlamydial ophthalmia neonatorum and gonococcal ophthalmia neonatorum.</td>
<td>1.8/100,000 live births (2000)</td>
<td>0</td>
<td>0 (2004)</td>
<td>Target Achieved</td>
<td>KYEPHRS</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective
26. Substance Abuse

Goal

To increase abstinence from substances while reducing experimentation, use and abuse, especially among Kentucky’s youth, thereby reducing the consequences -- violence, crime, illness, death and disability -- that result from abuse of substances at great cost and harm to individuals and society.

Overview

The combined costs of health care, law enforcement, motor vehicle crashes, crime and lost productivity caused by substance abuse have been calculated at nearly $1,000 annually for every man, woman and child in America. Applying this figure to Kentucky’s population, the consequences of substance abuse cost a staggering $4.1 billion each year in the Commonwealth.

A great variety of serious health and social problems as well as enormous dollar costs are associated with abuse of alcohol, drugs, and tobacco. Seventy-two conditions requiring hospitalizations are wholly or partially attributable to abuse of substances. Use of tobacco, alcohol, and illicit drugs all increase the risk of hypertension, stroke, and heart disease. Tobacco is involved in one-third of all cancer deaths. Heavy alcohol use increases the risk for cirrhosis and other liver disorders, which also may result from infection with hepatitis viruses. Use of cocaine and comparable drugs can produce cardiac irregularities and heart failure, convulsions, and seizures. Cocaine use temporarily narrows blood vessels in the brain, contributing to the risk of strokes as well as to cognitive deficits and memory loss.

Some of the major consequences of long-term use of alcohol or drugs include chronic depression, sexual dysfunction, and psychosis. Most substance abusers initiated use of tobacco and alcohol during adolescence and progressed to nicotine addiction, alcohol abuse, and illicit drug use. Accordingly, Kentucky’s substance prevention efforts place high priority on reducing substance use and promoting abstinence among adolescents, as well as reducing experimentation by young adolescents. Adolescent behaviors are especially influenced by policies and laws that limit youth access to tobacco, alcohol, and drugs, and by interventions that alter youths’ susceptibility to peer pressure, and norms and attitudes tolerant of substance use.

Summary of Progress

Of the 51 HK 2010 objectives and sub-objectives, six have been met and 11 show progress, while the rest show no progress or progress is not able to be tracked at this time. The target was achieved for Objective 26.8 which was to increase at least by one
year the average age of first alcohol use by adolescents. The average age increased from 12 in 1997 to 13 in 2003. There is improvement in objective 26.17 to reduce to no more than 20 percent the proportion of adolescents who report binge drinking within the past 30 days. The number of adolescents reporting binge drinking in the past 30 days in 2003 was 33 percent, down from a 1997 baseline of 37 percent.

Progress toward Achieving Each HK 2010 Objective

26.1. Increase to at least 90 percent the proportion of primary care providers who report that they routinely monitor and screen all their patients for abuse of alcohol, tobacco and drugs including prescription drugs, discuss alcohol and drug interactions with these patients, and refer them for preventive or treatment services when appropriate. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

26.2. Achieve participation, by communities representing at least 80 counties, in comprehensive, science-based strategic planning, programming and evaluation for substance prevention, employing techniques developed through the Kentucky Prevention Evaluation and Planning System (KPEPS) and the Governor’s Kentucky Incentives for Prevention Project (KIP).

Data Source: Monitoring by Division of Substance Abuse

Baseline: 31 counties in 1999

HK 2010 Target: 80 counties

Mid-Decade Status: 110 Kentucky counties in 2005

Strategies to Achieve Objective:

- This objective has been achieved
- Continue to provide technical assistance and consultation to community projects

26.3. Achieve passage of legislation mandating Administrative License Revocation (ALR) or a program of equal effectiveness for people determined to drive under the influence of intoxicants, and a maximum legal blood alcohol concentration (BAC) level of 0.08 percent for motor vehicle drivers aged 21 and older.

Data Source: Kentucky Revised Statutes
Baseline: Legislation mandating license revocation did not exist

HK 2010 Target: Passage of legislation mandating administrative license revocation at BAC level of .08

Mid-Decade Status: HK 2010 target achieved (Legislation went into effect on October 1, 2000).

Data Needs: None

Strategies to Achieve Objective:

- Objective achieved

26.4. Reduce the proportion of adolescents who report approval for use of tobacco, alcohol and other drugs to: tobacco 35 percent; alcohol 30 percent; marijuana 15 percent; other drugs 10 percent. (See Revision)

26.4R. (REVISION) Increase the proportion of 8th grade students who report strong disapproval for use of tobacco, alcohol, and other drugs to: tobacco, 60 percent; alcohol, 65 percent; marijuana, 85 percent, and other drugs 98 percent.

Reason for Revision: This revision reflects how the data are collected on the Kentucky Incentives for Prevention (KIP) student survey.

Data Source: KIP student survey

<table>
<thead>
<tr>
<th>8th Graders</th>
<th>Baseline and Mid-Decade Status (2004)</th>
<th>HK 2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>50%</td>
<td>60%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>55%</td>
<td>65%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>75%</td>
<td>85%</td>
</tr>
<tr>
<td>Other Drugs</td>
<td>88%</td>
<td>98%</td>
</tr>
</tbody>
</table>

Strategies to Achieve Objective:

- Translate this 2010 objective into annual fiscal year work plan activities for Regional Prevention Centers, community prevention coalitions and other entities funded or otherwise supported by the Division of Mental Health and Substance Abuse
- Continue and expand the implementation of the KIP survey and the YRBSS to assess the status of substance involvement at the
county/community level and assess progress toward all applicable Year 2010 Objectives for Kentucky

26.5. Increase the proportion of adolescents who perceive peer disapproval associated with use of substances (individually measured) to an average 75 percent among 8th graders and an average 85 percent among high school seniors. (See Revision)

26.5R. (REVISION) Increase the proportion of 8th grade students who report that none of their friends use substances to: tobacco, 70 percent; alcohol 70 percent; marijuana, 90 percent and other drugs, 95 percent.

Reason for Revision: This revision reflects how the data are collected on the KIP student survey.

Data Source: KIP student survey

<table>
<thead>
<tr>
<th>8th Graders</th>
<th>Baseline and Mid Decade Status (2004)</th>
<th>HK 2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>58%</td>
<td>70%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>59%</td>
<td>70%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>78%</td>
<td>90%</td>
</tr>
<tr>
<td>Other Drugs</td>
<td>91%</td>
<td>95%</td>
</tr>
</tbody>
</table>

Strategies to Achieve Objective:

● Same strategies as for Objective 26.4R.

26.6. Increase to an average 95 percent the proportion of adolescents who perceive great risk of personal harm and/or trouble associated with use of tobacco, alcohol, and drugs. (See Revision)

26.6R. (REVISION) Increase the proportion of 8th grade students who perceive great risk of personal harm and/or trouble associated with regular use of substances: tobacco 50 percent; alcohol 35 percent; and marijuana, 80 percent.

Reason for Revision: This revision reflects how the data are collected on the KIP student survey.

Data Source: KIP student survey
<table>
<thead>
<tr>
<th>8th Graders</th>
<th>Baseline and Mid Decade Status (2004)</th>
<th>HK 2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>41%</td>
<td>50%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>26%</td>
<td>35%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>69%</td>
<td>80%</td>
</tr>
</tbody>
</table>

**Strategies to Achieve Objective:**

- Same strategies as for Objective 26.4

26.7. Increase to the following percentages the number of school-age children who choose to abstain from use of tobacco, alcohol and other drugs: tobacco, 50 percent; alcohol, 50 percent; marijuana, 80 percent; cocaine, 96 percent. (See Revision)

26.7R. (REVISION) Increase the percentages of 8th grade students who report having never used tobacco, alcohol, and other drugs: tobacco, 65 percent; alcohol, 65 percent; marijuana, 90 percent; cocaine, 98 percent.

**Reason for Revision:** This revision reflects how the data are collected on the KIP student survey.

**Data Source:** KIP student survey

<table>
<thead>
<tr>
<th>8th Graders</th>
<th>Baseline and Mid Decade Status (2004)</th>
<th>HK 2010 Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tobacco</td>
<td>59%</td>
<td>65%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>54%</td>
<td>65%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>85%</td>
<td>90%</td>
</tr>
<tr>
<td>Cocaine</td>
<td>96%</td>
<td>98%</td>
</tr>
</tbody>
</table>

**Strategies to Achieve Objective:**

- Same strategies as for Objective 26.4R

26.8. Increase by at least one year the average age of first use of alcohol by adolescents.

**Data Source:** Youth Risk Behavior Surveillance System (YRBSS)
Baseline: 1997

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 and under</td>
<td>11%</td>
</tr>
<tr>
<td>9-10</td>
<td>6%</td>
</tr>
<tr>
<td>11-12</td>
<td>13%</td>
</tr>
<tr>
<td>13-14</td>
<td>29%</td>
</tr>
<tr>
<td>15-16</td>
<td>17%</td>
</tr>
<tr>
<td>17 and older</td>
<td>2%</td>
</tr>
</tbody>
</table>

Average Age: 12 years

HK 2010 Target: 13 years

Mid-Decade Status: Students reporting their first drink of alcohol (more than a few sips) by age of first drink in 2003

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 and under</td>
<td>8%</td>
</tr>
<tr>
<td>9-10</td>
<td>6%</td>
</tr>
<tr>
<td>11-12</td>
<td>13%</td>
</tr>
<tr>
<td>13-14</td>
<td>25%</td>
</tr>
<tr>
<td>15-16</td>
<td>22%</td>
</tr>
<tr>
<td>17 and older</td>
<td>4%</td>
</tr>
</tbody>
</table>

Average Age: 13 years

Strategies to Achieve Objective:

- Same strategies as for Objective 26.4

26.9. Increase by at least one year the average age of first use of marijuana by adolescents.

Data Source: YRBSS

Baseline: 1997

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 and under</td>
<td>1%</td>
</tr>
<tr>
<td>9-10</td>
<td>2%</td>
</tr>
<tr>
<td>11-12</td>
<td>6%</td>
</tr>
<tr>
<td>13-14</td>
<td>19%</td>
</tr>
<tr>
<td>15-16</td>
<td>18%</td>
</tr>
<tr>
<td>17 and older</td>
<td>3%</td>
</tr>
</tbody>
</table>

Average Age: 14 years

HK 2010 Target: 15 years old
**Mid-Decade Status: 2003:**

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 and under</td>
<td>2%</td>
</tr>
<tr>
<td>9-10</td>
<td>3%</td>
</tr>
<tr>
<td>11-12</td>
<td>7%</td>
</tr>
<tr>
<td>13-14</td>
<td>16%</td>
</tr>
<tr>
<td>15-16</td>
<td>13%</td>
</tr>
<tr>
<td>17 and older</td>
<td>2%</td>
</tr>
</tbody>
</table>

Average Age: 13 years

**Strategies to Achieve Objective:**

- Same strategies as for Objective 26.4R

**26.10. Increase by at least one year the average age of first use of illicit drugs (other than marijuana) or inhalants by adolescents. (DELETED)**

**Reason for Deletion:** No reliable data source is available, and none is expected in the near future.

**26.11. Reduce past month use of alcohol among adolescents to no more than 30 percent.**

**Data Source:** YRBSS

**Baseline:** 49.3 percent in 1997

**HK 2010 Target:** 30 percent

**Mid-Decade Status:** 45 percent in 2003.
Strategies to Achieve Objective:

● Same strategies as for Objective 26.4R

26.12. Reduce alcohol consumption in Kentucky to an annual average of no more than 2 gallons of ethanol per person.

Data Source: National Institute on Alcohol Abuse and Alcoholism (NIAAA); National Institutes of Health.

Baseline: 2.2 gallons in 1994

HK 2010 Target: 2 gallons

Mid-Decade Status: 1.8 gallons in 2002

Strategies to Achieve Objective:

● Objective achieved

26.13. Reduce to no more than 10 percent the proportion of adolescents reporting marijuana use during the past 30 days.

Data Source: YRBSS

Baseline: 28.4 percent in 1997

HK 2010 Target: 10 percent

Mid-Decade Status: 21 percent in 2003
Strategies to Achieve Objective:

- Same strategies as for Objective 26.4R

26.14. Reduce to no more than 4 percent the proportion of adolescents reporting use of illicit drugs other than marijuana at any time (lifetime use).

Data Source: YRBSS

Baseline:

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>1997 KY YRBSS</th>
<th>2003 KY YRBSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime (ever) use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>8.3%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Inhalants</td>
<td>24.7%</td>
<td>14.3%</td>
</tr>
<tr>
<td>Heroin</td>
<td>Not asked</td>
<td>3.7%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>Not asked</td>
<td>9.7%</td>
</tr>
<tr>
<td>Ecstasy/MDMA</td>
<td>Not asked</td>
<td></td>
</tr>
<tr>
<td>Steroids</td>
<td>6.1%</td>
<td></td>
</tr>
<tr>
<td>Injection any substance</td>
<td>2.6%</td>
<td></td>
</tr>
</tbody>
</table>

HK 2010 Target: 4 percent for all types of illicit drugs

Mid-Decade Status:
Other illegal drugs (ever used):

<table>
<thead>
<tr>
<th>Drug Type</th>
<th>2003 KY YRBSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lifetime (ever) use</td>
<td></td>
</tr>
<tr>
<td>Cocaine</td>
<td>9.8%</td>
</tr>
<tr>
<td>Inhalants</td>
<td>14.3%</td>
</tr>
<tr>
<td>Heroin</td>
<td>3.7%</td>
</tr>
<tr>
<td>Methamphetamine</td>
<td>9.7%</td>
</tr>
</tbody>
</table>
Ecstasy/MDMA 6.7%
Steroids 7.1%
Injection any substance 3.2%

Figure 26.3 Percentage of Lifetime Use of Cocaine by Adolescents, Kentucky, 1997, 1999*, 2001*, 2003 (Source: YRBSS; * non-weighted data)

Strategies to Achieve Objective:

- Same strategies as for Objective 26.4R

26.15. (Developmental) Reduce to no more than 12 percent the proportion of adolescents reporting inhalant use during the past 30 days. (See Revision)

26.15R. (REVISION) Reduce to no more than 2 percent the proportion of adolescents reporting inhalant use during the past 30 days.

Reason for Revision: This revision reflects how the data are collected on the Kentucky YRBSS.

Data Source: YRBSS

Baseline: 4 percent in 2003

HK 2010 Target: 2 percent

Mid-Decade Status: 4 percent in 2003

Strategies to Achieve Objective:

- Same strategies as for Objective 26.4R
26.16. (Developmental) Reduce to no more than 3 percent the proportion of adolescents reporting steroid use during the past 30 days. (See Revision)

26.16R. (REVISION) Reduce to no more than 3 percent the proportion of adolescents reporting ever using steroids without a prescription.

Reason for Revision: This revision reflects how the data are collected on the Kentucky YRBSS.

Data Source: YRBSS

Baseline: 6.1 percent in 1997

HK 2010 Target: 3 percent

Mid-Decade Status: 7 percent in 2003

Figure 26.4 Percentage of Adolescents Reporting Use of Steroids without a Prescription at Any Time during Their Lifetime, Kentucky, 1997, 1999*, 2001*, 2003  (Source: YRBSS; * non-weighted data)

Strategies to Achieve Objective:

- Same strategies as for Objective 26.4R

26.17. Reduce to no more than 20 percent the proportion of adolescents who report binge drinking within the past month.

Data Source: YRBSS

Baseline: 37.1 percent in 1997

HK 2010 Target: 20 percent
**Mid-Decade Status:** 33 percent in 2003

![Bar chart](image)

Figure 26.5 Percentage of Adolescent Binge Drinking within the Past 30 Days, Kentucky, 1997, 1999*, 2001*, 2003 (Source: YRBSS; * non-weighted data)

**Strategies to Achieve Objective:**

- Same strategies as for Objective 26.4R

26.18. (Developmental) **Reduce by one-fourth the proportion of Kentuckians of all ages who report binge drinking within the past month.** (See Revision)

26.18R. (REVISION) Reduce by one-fourth the proportion of Kentuckians age 18 and older who report binge drinking within the past month.

**Reason for Revision:** This revision reflects how the data are collected on the Kentucky Behavioral Risk Factor Surveillance System (BRFSS). Binge drinking is defined as consuming five or more drinks on one or more occasions in the past thirty days.

**Data Source:** BRFSS

**Baseline:** 9.4 percent in 1997

**HK 2010 Target:** 6.5 percent

**Mid-Decade Status:** 9.6 percent in 2003
Figure 26.6 Percentage of Persons 18 and Older Reporting Binge Drinking within the Past 30 Days, Kentucky, 2001-2004 (Source: BRFSS)

Strategies to Achieve Objective:

- Same strategies as for Objective 26.4R

26.19. (Developmental) Reduce by half the proportion of persons who report having driven a vehicle, or riding with a driver who had been drinking, during the past month.

Data Source: YRBSS

Baseline: 1997
16 percent driving after drinking
36 percent riding with a driver who had been drinking

HK 2010 Target: 8 percent driving after drinking
18 percent riding with a driver who had been drinking

Mid-Decade Status: 2003
11 percent driving after drinking alcohol
26 percent riding with a driver who had been drinking

Strategies to Achieve Objective:

- Same strategies as for Objective 26.4R

26.20. Reduce to less than 2 percent the proportion of adolescents age 12-17 who report using marijuana on three or more occasions within the past month. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.
26.21. (Developmental) Reduce by one-half the proportion of adolescents age 12-17 who report using illicit drugs (other than marijuana), inhalants or steroids on two or more occasions within the past month. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

26.22. (Developmental) Reduce by half the proportion of persons who report having driven a vehicle after using drugs, or riding with a driver who had been using drugs, during the past month. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

26.23. Increase to 40 percent the percentage of persons who become and remain totally abstinent as a result of treatment for abuse of alcohol, drugs, or both in combination.

Data Source: Kentucky Substance Abuse Treatment Outcomes Survey (KTOS), maintained by the UK Center for Drug and Alcohol Research (UK-CDAR).

Baseline: 29.1 percent in 1997

HK 2010 Target: 40 percent

Mid-Decade Status: 44.5 percent in 2003

Figure 26.7 Persons Who Report Becoming and Remaining Abstinent as a Result of Treatment for Abuse of Alcohol, Drugs, or Both, Kentucky. (Source: KY Substance Abuse Treatment Outcomes Survey, maintained by the UK Center for Drug and Alcohol Research)

Strategies to Achieve Objective:
• The Division of Mental Health and Substance Abuse will continue to work closely with the Governor’s Office of Drug Control Policy and the University of Kentucky’s Center on Drug and Alcohol Research to monitor the percentage of persons who complete substance abuse treatment and report total abstinence through the Kentucky Treatment Outcome Study.

26.24. (Developmental) Reduce by half the proportion of Kentucky adolescents who report involvement during the past year in physical fighting for reasons related to substance abuse. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

26.25. (Developmental) Reduce by two-thirds the proportion of Kentucky adolescents who report non-sport weapon carrying during the past year for reasons related to substance abuse. (DELETED)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

26.26. (Developmental) Reduce by half the proportion of Kentucky adolescents who report vandalizing, destroying or stealing property during the past year for reasons related to substances. (See Revision)

Reason for Deletion: No reliable data source is available, and none is expected in the near future.

26.27. (Developmental) Reduce by half the proportion of Kentucky adolescents who report considering or attempting suicide during the past year for reasons related to substances. (See Revision)

26.27R. (REVISION) Reduce by half the proportion of Kentucky adolescents who report considering or attempting suicide during the past year.

Reason for Revision: This revision reflects how the data are collected on the Kentucky YRBSS.

Data Source: YRBSS

Baseline: 1997

- Seriously considered suicide: 22 percent
- Made plan to commit suicide: 17 percent
Had to be treated by a doctor or nurse 3 percent
Actually attempted suicide 8 percent

HK 2010 Target:

Seriously considered suicide 11 percent
Made plan to commit suicide 8.5 percent
Actually attempted suicide 4 percent
Had to be treated by a doctor or nurse 1.5 percent

Mid-Decade Status: 2003

Seriously considered suicide 18 percent
Made plan to commit suicide 15 percent
Actually attempted suicide 10 percent
Had to be treated by a doctor or nurse 4 percent

Strategies to Achieve Objective:

● Same strategies as for Objective 26.4R

26.28. Reduce to the following levels the percentages of adolescents who report experiencing problems or trouble as a consequence of using alcohol or drugs.

Data Source: KIP student survey

Baseline and Mid-Decade Status: 2004

Trouble with family 9%
Trouble with friends 12%
Trouble with police 3%
Problems in school 8%

HK 2010 Target:

Trouble with family 8%
Trouble with friends 18%
Trouble with police 2%
Problems in school 7%

Strategies to Achieve Objective:

● Same strategies as for Objective 26.4R
Terminology

**Abstinence:** No use of substances of abuse within the past year.

**Abuse:** Excessive quantity and/or frequency of use of one or more substances to a degree that is harmful, and may result in serious consequences or problems, for the user, the user’s family or community, and which may or may not involve dependence on or addiction to the substance(s).

**Behavioral Factors:** Personal choices on behavior regarding substances; correlates and precursors which influence those choices; and consequences of personal choices and behaviors.

**Consequences of Behavior:** Include the statistical end results of individuals’ choices to abstain, experiment, use or abuse substances as reflected in public health, crime, and personal and societal costs. Some examples include:
- Driving Under the Influence (DUI): mortality, morbidity and costs resulting from driving under the influence of alcohol or drugs;
- Cancer: deaths, disabilities and costs from cancer caused by smoking cigarettes and using smokeless tobacco;
- Avoidable costs borne by private insurance payers and Medicare/Medicaid resulting from liver cirrhosis and comparable consequences of long-term substance use and abuse.

Any goals to reduce these consequences inherently must presuppose other goals that more directly target the personal behaviors that result in these consequences, and/or the correlates and precursors which influence personal choices and decisions on behavior toward substances.

**Binge Drinking:** Five or more drinks in a row on one or more occasions during the past month. See Abuse definition.

**Environmental Factors:** Societal circumstances which influence individuals’ attitudes and behaviors toward substances. **Community cultural** factors affect the supply, availability and price of substances; access to substances; local norms and values regarding substances; and the means through which these factors are applied, such as policing, churches and schools. **Infrastructure** factors include substance-related laws and ordinances at any level -- national, state or local; substance-related policies at any level down to and including individual facilities; and systemic capacity to influence substance availability, access and behaviors (including but not limited to capacity for data, planning, funding, programming, evaluation, measurement and assessment).

**Experimentation:** No more than five instances of use with a particular substance in a person’s lifetime, and no use of the substance within the 30 days preceding the date the person provided the information.
**Relapse:** Reversion to a former pattern of abusive substance-related behavior (measured as the number of readmissions for treatment and the amount of time between treatment episodes).

**Substance:** The three broad categories of substances include: 1) tobacco (smoked and smokeless); 2) alcohol (in multitudinous classes of brewed and distilled beverages); and 3) drugs (marijuana and all other illicit drugs; improperly used prescription drugs and anabolic steroids; and use as inhalants of miscellaneous household products, solvents, gasoline, etc.).

**Use:** Any non-experimental use of a substance that does not constitute abuse of that substance. Widespread non-problematic consumption of alcoholic beverages in U.S. society and widespread public non-critical acceptance of such alcohol consumption as a cultural norm exemplify the distinction between use (which may or may not lead to abuse) and abuse (i.e., clearly excessive use harmful to self or others). The use-abuse boundary is a gray area.

**Contributors**

- Matt Udie, Ph.D., Substance Abuse Prevention Program, Division of Mental Health and Substance Abuse, Department for Mental Health and Mental Retardation, Chapter Coordinator
- Carl Leukefeld, D.S.W., Professor of Behavioral Science, Psychiatry, Oral Health Science and Social Work; Director of the Center for Drug and Alcohol Research, University of Kentucky.
- Dianne Shuntich, M.Ed., Chronic Disease Prevention and Control Branch, Department for Public Health
- Teri Wood, Ph.D., Epidemiologist, Chronic Disease Prevention and Control Branch, Department for Public Health
### Summary of Objectives for Substance Abuse

<table>
<thead>
<tr>
<th>26.1. (DELETED)</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.2. Achieve participation, by communities representing at least 80 counties, in comprehensive, science-based strategic planning, programming and evaluation for substance prevention, employing techniques developed through the Kentucky Prevention Evaluation and Planning System (KPEPS) and the Governor’s Kentucky Incentives for Prevention Project (KIP).</td>
<td>31 counties (1999)</td>
<td>80 counties</td>
<td>110 counties (2005)</td>
<td>Target Achieved</td>
<td>County survey</td>
</tr>
<tr>
<td>26.3. Achieve passage of legislation mandating Administrative License Revocation (ALR) or a program of equal effectiveness for people determined to drive under the influence of intoxicants, and a maximum legal blood alcohol concentration (BAC) level of 0.08 percent for motor vehicle drivers aged 21 and older.</td>
<td>Legislation submitted</td>
<td>Passage</td>
<td>Legislation Enacted</td>
<td>Target Achieved</td>
<td>Kentucky Revised Statutes</td>
</tr>
<tr>
<td>26.4R. Increase the proportion of 8th grade students who report strong disapproval for use of tobacco, alcohol and other drugs to: tobacco - 60 percent; alcohol - 65 percent; marijuana - 85 percent; other drugs - 98 percent.</td>
<td>Tobacco 50% (2004)</td>
<td>≥60%</td>
<td>50% (2004)</td>
<td>N/A</td>
<td>KIP</td>
</tr>
<tr>
<td></td>
<td>Alcohol 55%</td>
<td>≥65%</td>
<td>55%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marijuana 75%</td>
<td>≥85%</td>
<td>75%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Drugs 88%</td>
<td>≥98%</td>
<td>88%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>26.5R. Increase the proportion of 8th grade students who report that none of their friends use substances to: tobacco 70 percent; alcohol - 70 percent; marijuana - 90 percent; other drugs - 95 percent.</td>
<td>Tobacco 58% (2004)</td>
<td>≥70%;</td>
<td>58% (2004)</td>
<td>N/A</td>
<td>KIP</td>
</tr>
<tr>
<td></td>
<td>Alcohol 59%</td>
<td>≥70%</td>
<td>59%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marijuana 78%</td>
<td>≥90%</td>
<td>78%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other Drugs 91%</td>
<td>≥95%</td>
<td>91%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>26.6R. Increase the proportion of 8th grade students who perceive great risk of personal harm and/or trouble associated with regular use of substances: tobacco - 50 percent; alcohol - 35 percent; and</td>
<td>Tobacco 41% (2004)</td>
<td>≥50%</td>
<td>41% (2004)</td>
<td>N/A</td>
<td>KIP</td>
</tr>
<tr>
<td></td>
<td>Alcohol 26%</td>
<td>≥35%</td>
<td>26%</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>
### Summary of Objectives for Substance Abuse

<table>
<thead>
<tr>
<th>Summary</th>
<th>Baseline</th>
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<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marijuana - 80 percent.</td>
<td>Marijuana 69%</td>
<td>≥80%</td>
<td>69%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>26.7R. Increase the percentages of 8th grade students who report having never used tobacco, alcohol and other drugs: tobacco - 65 percent; alcohol - 65 percent; marijuana - 90 percent; cocaine - 98 percent.</td>
<td>Tobacco 59% (2004)</td>
<td>≥65%</td>
<td>59% (2004)</td>
<td>N/A</td>
<td>KIP</td>
</tr>
<tr>
<td></td>
<td>Alcohol 54%</td>
<td>≥65%</td>
<td>54%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marijuana 85%</td>
<td>≥90%</td>
<td>85%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cocaine 96%</td>
<td>98%</td>
<td>96%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>26.8. Increase by at least one year the average age of first use of alcohol by adolescents.</td>
<td>12 years old (1997)</td>
<td>13 years old</td>
<td>13 years old (2003)</td>
<td>Target Achieved</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.9. Increase by at least one year the average age of first use of marijuana by adolescents.</td>
<td>14 years old (1997)</td>
<td>15 years old</td>
<td>13 years old (2003)</td>
<td>No</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.10. (DELETED)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.11. Reduce past month use of alcohol among adolescents to no more than 30 percent.</td>
<td>49.3% (1997)</td>
<td>≤30%</td>
<td>45% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.12. Reduce alcohol consumption in Kentucky to an annual average of no more than 2 gallons of ethanol per person.</td>
<td>2.2 gallons (1994)</td>
<td>≤2 gallons</td>
<td>1.8 gallons (2002)</td>
<td>Target Achieved</td>
<td>National Institute on Alcohol Abuse and Alcoholism</td>
</tr>
<tr>
<td>26.13. Reduce to no more than 10 percent the proportion of adolescents reporting marijuana use during the past 30 days.</td>
<td>28.4% (1997)</td>
<td>≤10%</td>
<td>21% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.14. Reduce to no more than 4 percent the proportion of adolescents reporting use of illicit drugs other than marijuana at any time (lifetime use).</td>
<td>Cocaine 8.3% (1997)</td>
<td>≤4%</td>
<td>9.8% (2003)</td>
<td>No</td>
<td>YRBSS</td>
</tr>
<tr>
<td></td>
<td>Inhalants 24.7% (1997)</td>
<td>≤4%</td>
<td>14.3% (2003)</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Heroin 3.7% (2003)</td>
<td>≤4%</td>
<td>3.7% (2003)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Meth 9.7% (2003)</td>
<td>≤4%</td>
<td>9.7% (2003)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ecstasy 6.7% (2003)</td>
<td>≤4%</td>
<td>6.7% (2003)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Steroids 6.1% (1997)</td>
<td>≤4%</td>
<td>7.1% (2003)</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Summary of Objectives for Substance Abuse</td>
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<td>Data Source</td>
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</tr>
<tr>
<td>Any injections 2.6% (1997)</td>
<td>≤4%</td>
<td>3.2% (2003)</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.15R. Reduce to no more than 2 percent the proportion of adolescents reporting inhalant use during the past 30 days.</td>
<td>4% (2003)</td>
<td>≤2%</td>
<td>4% (2003)</td>
<td>N/A</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.16R. Reduce to no more than 3 percent the proportion of adolescents reporting ever using steroids without a prescription.</td>
<td>6.1% (1997)</td>
<td>≤3%</td>
<td>7% (2003)</td>
<td>No</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.17. Reduce to no more than 20 percent the proportion of adolescents who report binge drinking within the past month.</td>
<td>37.1% (1997)</td>
<td>≤20%</td>
<td>33% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>26.18R. Reduce by one-fourth the proportion of Kentuckians age 18 and older who report binge drinking within the past month.</td>
<td>8.7% (2001)</td>
<td>≤6.5%</td>
<td>9.3% (2003)</td>
<td>No</td>
<td>BRFSS</td>
</tr>
<tr>
<td>26.19. (Developmental) Reduce by half the proportion of youth who report having driven a vehicle, or riding with a driver who had been drinking, during the past month.</td>
<td>Diving after drinking 16% (1997)</td>
<td>≤8%</td>
<td>11%</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>Riding with a driver after drinking 36% (1997)</td>
<td>≤18%</td>
<td>26% (2003)</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26.20.- 26.22. (DELETED)</td>
<td>26.23. Increase to 40 percent the percentage of persons who become and remain totally abstinent as a result of treatment for abuse of alcohol, drugs, or both in combination.</td>
<td>29.1% (1997)</td>
<td>≥40%</td>
<td>44.5% (2003)</td>
<td>Target Achieved</td>
</tr>
<tr>
<td>26.27R. Reduce by half the proportion of Kentucky adolescents who report considering or attempting suicide during the past year.</td>
<td>Considered 22% (1997)</td>
<td>≤11%</td>
<td>18% (2003)</td>
<td>Yes</td>
<td>YRBSS</td>
</tr>
<tr>
<td>Made plan 17%</td>
<td>≤8.5%</td>
<td>15%</td>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Actual attempt 8%</td>
<td>≤4%</td>
<td>10%</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment by doctor as a result of attempt 3%</td>
<td>≤1.5%</td>
<td>4%</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary of Objectives for Substance Abuse</td>
<td>Baseline</td>
<td>HK 2010 Target</td>
<td>Mid-Decade Status</td>
<td>Progress</td>
<td>Data Source</td>
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</tr>
<tr>
<td>26.28. Reduce to the following levels the percentages of adolescents who report experiencing problems or trouble as a consequence of using alcohol or drugs.</td>
<td>Trouble w/ family ≤8% 9% (2004)</td>
<td>≤8%</td>
<td>9%</td>
<td>N/A</td>
<td>KIP</td>
</tr>
<tr>
<td></td>
<td>Trouble w/friends ≤11% 12%</td>
<td>≤11%</td>
<td>12%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trouble w/police ≤2% 3%</td>
<td>≤2%</td>
<td>3%</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Problems in school ≤7% 8%</td>
<td>≤7%</td>
<td>8%</td>
<td>N/A</td>
<td></td>
</tr>
</tbody>
</table>

R = Revised objective
N/A = Only baseline data are available. Not able to determine progress at this time.
27. Public Health Preparedness

Goal

Upgrade and improve state and local public health jurisdictions’ preparedness response to bioterrorism, outbreaks of infectious disease, and other public health threats and emergencies.

Overview

Disaster and emergency planning is an essential public health service—one that has been given short shrift until the last few years. Recent events such as the statewide anthrax scare, September 11th, Hurricanes Katrina and Rita, and the possibility of an avian flu pandemic, have brought home the importance of adequate planning, preparedness, and appropriate response to disasters and emergencies. Specific objectives relating to the added emphasis on public health preparedness are included in this new chapter.

The Department for Public Health is charged with utilizing funds made available through the Centers for Disease Control and Prevention to upgrade both state and local public health jurisdictions and to prepare them for a timely and appropriate response to bioterrorism, outbreaks of infectious disease, and other public health threats and emergencies. Because such events (as bioterrorism) can occur both at state and local levels, response capacity must be assured so that all affected jurisdictions are readied to the maximum capacity and can respond in a reasonable length of time. Education of state and local public health agencies, key policy makers, partners and stakeholders and their recognition of the importance of adequate disaster and emergency planning are paramount in making Kentucky a proactive state—one that is prepared for any possible catastrophic event.

Summary of Progress

Since this is a new chapter with baselines set at mid-decade status, a summary of progress will not be provided.

Progress toward Achieving Each HK 2010 Objective

27.1N. (NEW OBJECTIVE) Increase to 100 percent the percentage of local health departments (LHDs) that distribute to key policy makers, partners and stakeholders in their jurisdiction, a periodic newsletter regarding the nature and scope of public health surveillance, investigation, response, and control.

Data Source: A 2005 survey of local health departments
Baseline: 35 percent of LHDs issue periodic newsletters and public health announcements incorporating information on disaster and emergency planning and preparedness

HK 2010 Target: 100 percent of LHDs

Mid-Decade Status: 35 percent of LHDs

Strategies to Achieve Objective:

- The Department for Public Health, Disaster Preparedness Branch will strongly promote the development and distribution of newsletters (on at least a quarterly basis) to Judge Executives and other Board of Health members informing them of recent events pertaining to bioterrorism and possible infectious disease entities.
- Publication and distribution of newsletters will be a required component of each LHD’s Disaster Plan.
- Sample newsletters from LHD’s currently complying may be provided as an example or guide of what is required.
- Public health announcements will be prepared by LHD’s on an as needed basis and shared with local law enforcement officials, hospitals and private practitioners.

27.2N. (NEW OBJECTIVE) Increase response capacity by 20 percent by adding appropriately trained staff, such as epidemiologists, to conduct surveillance activities and investigate outbreaks as well as other public health emergencies.

Data Source: A review of the number of epidemiologists on staff

Baseline: 10 epidemiologists at the state level; 17 regional epidemiologists (2005)

HK 2010 Target: 12 epidemiologists at the state level; 20 regional epidemiologists

Mid-Decade Status: 10 epidemiologists at the state level; 17 regional epidemiologists (2005)

Strategies to Achieve Objective:

- Secure additional funding for epidemiologic staff and associated operating expenses
• Improve the training for epidemiologists so that they may be kept current on diseases and recent information pertinent to infectious events that may involve them locally, regionally, or at the state level
• Conduct public emergency interventions when necessary at the state and local levels, providing interpretation of clinical and laboratory information
• Institute public health control and protection measures for emergency response workers
• Maintain lines of communication between local health care employees, local health departments, and the state Department to assure management of secure information

27.3N. (NEW OBJECTIVE) Develop and maintain a registry of all public health personnel, other health care personnel, and security staff needed to maintain public order; EMS staff needed to transport ill patients; and hospital staff, private physicians and their staff who could serve on health care response teams in the event of a local, state, or national emergency.

HK 2010 Target: 95 percent complete

Mid-Decade Status: Registry initiated during response to Hurricane Katrina

Strategies to Achieve Objective:

• Review and incorporate in the Registry individuals from the Medical Reserve Corps (MRC)
• Review and incorporate in the Registry individuals from the KHELPS registry of medical and professional volunteers
• Review and incorporate individuals from the Emergency System for Advance Registration of Health Professions Volunteers, (ESAR-VHP)
• Assure that individuals are aware that they are part of the Registry
• Update the Registry at least semi-annually

27.4N. (NEW OBJECTIVE) Develop an integrated, automated system to link infectious zoonotic disease information identified at the state diagnostic labs with the surveillance, identification, and tracking system of the Kentucky Electronic Public Health Records System (KYEPHRS).

HK 2010 Target: 85 percent of database complete

Mid-Decade Status: No system available at present. The Hurricane Katrina emergency underscored the need for communication to evacuees
and response personnel on how to appropriately handle animals during a disaster or emergency.

**Strategies to Achieve Objective:**

- Provide a liaison and improve communication between the State Veterinarian’s Office and the Emergency Preparedness Branch
- Assure data link access for both the State Veterinarian’s Office and the Department for Public Health to query an information pool when presented with suspicious or suspected cases of infectious zoonotic diseases.
- Designate one focal point for providing information to the public, local health departments, and local response teams on appropriate handling of animals in an emergency/disaster situation

**Contributors**

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## 27. Public Health Preparedness – Summary Table

<table>
<thead>
<tr>
<th>Summary of Objectives</th>
<th>Baseline</th>
<th>HK 2010 Target</th>
<th>Mid-Decade Status</th>
<th>Progress</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>27.1N. Increase to 100 percent the percentage of local health departments (LHDs) that distribute to key policy makers, partners, and stakeholders in their jurisdiction, a periodic newsletter regarding the nature and scope of public health surveillance, investigation, response, and control.</td>
<td>35% produce newsletters (2005)</td>
<td>100%</td>
<td>35% (2005)</td>
<td>N/A</td>
<td>Survey of LHDs</td>
</tr>
<tr>
<td>27.2N. Increase response capacity by 20 percent by adding appropriately trained staff, such as epidemiologists, to conduct surveillance activities and investigate outbreaks as well as other public health emergencies.</td>
<td>10 state epis 17 regional epis (2005)</td>
<td>12 state epis 20 regional epis (2005)</td>
<td>10 state epis 17 regional epis (2005)</td>
<td>N/A</td>
<td>Review number of epidemiologists on staff</td>
</tr>
<tr>
<td>27.3N. Develop and maintain a registry of all public health personnel, other health care personnel, and security staff needed to maintain public order; EMS staff needed to transport ill patients; and hospital staff, private physicians and their staff who could serve on health care response teams in the event of a local, state or national emergency.</td>
<td>Registry began in September 2005</td>
<td>Registry 95% complete</td>
<td>Registry began in September 2005</td>
<td>N/A</td>
<td>Registry of personnel</td>
</tr>
<tr>
<td>27.4N. Develop an integrated, automated system to link infectious zoonotic disease information identified at the state diagnostic labs with the surveillance, identification and tracking system of the Kentucky Electronic public health Records System (KYEPHRS)</td>
<td>Will begin system in 2006</td>
<td>85% of system complete</td>
<td>Will begin system in 2006</td>
<td>N/A</td>
<td>Integrated database flag-system</td>
</tr>
</tbody>
</table>

N = New objective  
N/A = Only baseline data are available. Not able to determine progress at this time.
APPENDIX
List of Abbreviations

Behavioral Risk Factor Surveillance System ................................................. BRFSS
Body Mass Index ........................................................................................... BMI
Cardiovascular Health Worksite Survey ......................................................... CHWS
Children’s Oral Health Surveillance System ................................................. COHSS
Clinical Assessment Software Application – for the
  Kentucky Immunization Program .............................................................. CASA
  Fatality Assessment and Control Evaluation ............................................. FACE
  Kentucky All Schedule Prescription Electronic Reporting ........................ KASPER
  Kentucky Birth Surveillance Registry ......................................................... KBSR
  Kentucky Board of Emergency Medical Services ...................................... KBEAM
  Kentucky Cancer Registry ........................................................................ KCR
  Kentucky Department for Education ......................................................... KDE
  Kentucky Electronic Public Health Record System ...................................... KYEPHRS
  Kentucky Incentives for Prevention Student Survey ................................ KIP
  Kentucky Substance Abuse Treatment Outcomes Survey ........................ KTOS
  Kentucky Violent Death Reporting System .............................................. KVDRS
  Hospital Inpatient Discharge Database ..................................................... HOSP
  National Core Indicators Survey of Persons
    with Disabilities ....................................................................................... NCIS
  Minimum Data Sets used in determining the
    long term care resident’s acuity level for payment ................................ MDS
  Medical Standards/Delegated Practice Committee
    of the Kentucky EMS Council, ................................................................. MS/DPC
  Pediatric Nutrition Surveillance System ..................................................... PedNSS
  Patient Services Reporting System ........................................................ PSRS
  School Health Education Profiles ............................................................. SHEP
  Toxic Exposure Surveillance System ......................................................... TESS
  Tuberculosis Information Management System ........................................ TIMS
  Universal Newborn Hearing Screening Program ....................................... UNHS
  Youth Risk Factor Surveillance System ..................................................... YRBSS
  Youth Tobacco Survey ............................................................................ YTS