

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.

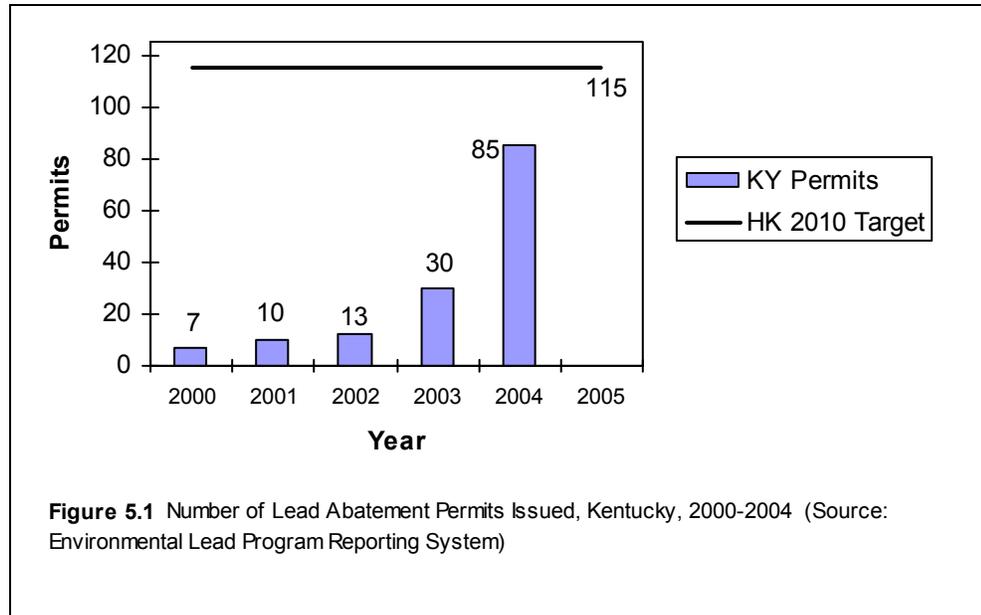
Revision: Objective was revised so that it could be measured with an appropriate data source.

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.

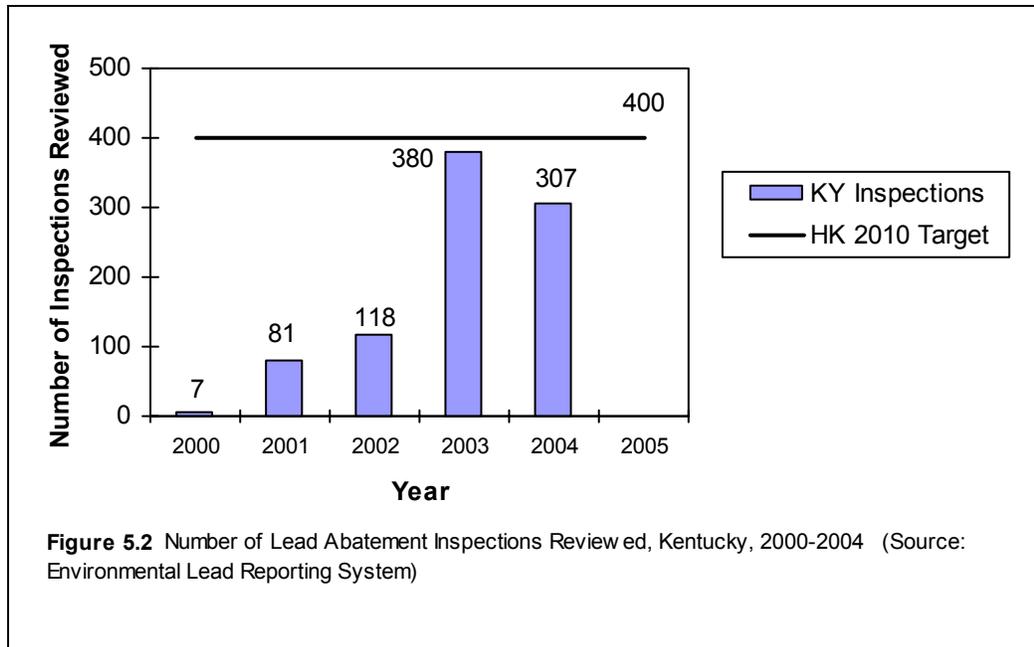
Revision: Objective was revised so that it could be measured with an appropriate data source.

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.**

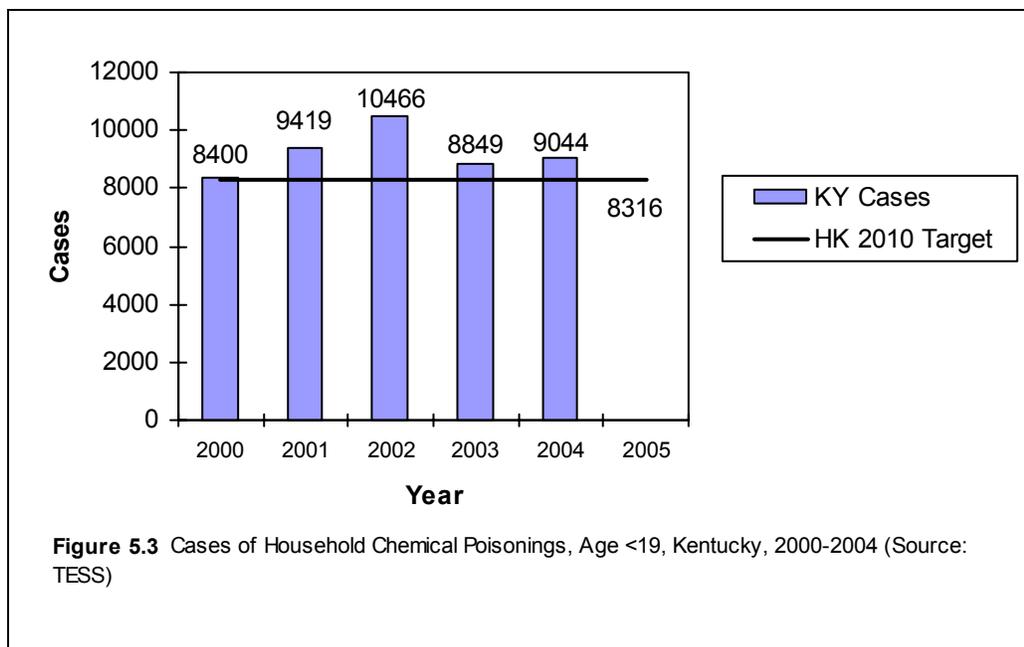
Revision: Objective was revised so that it could be measured with an appropriate data source.

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)**

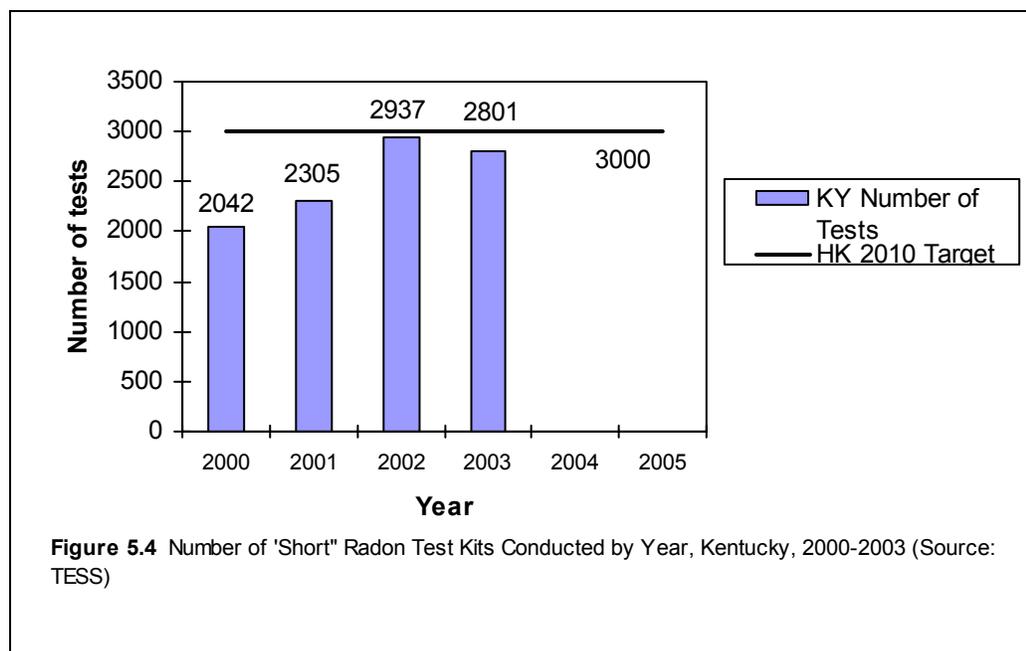
5.8R. (REVISION) Increase the number of "short" radon test kits conducted.

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



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 7th 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 *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 de minimus 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.

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5. Environmental Health – Summary Table

Summary of Objectives for Environmental Health	Baseline	HK 2010 Target	Mid-Decade Status	Progress	Data Source
5.1. (Developmental) Ensure that there are no outbreaks of waterborne disease in water intended for drinking.	0 (2000)	0	0 (2005)	Target Achieved	KYEPHRS
5.2 – 5.3. (DELETED)					
5.4R. Increase the number of Best Management Plans set forth by Agriculture Water Quality Act by 80 percent.	5500 (2000)	≥9900	59,296 (2005)	Target Achieved	Best Management Plan Database
5.5.1R. Increase the number of abatement permits for lead housing projects to 115 per grant fiscal year.	7 (2000)	≥115	85 (2004)	Yes	Env. Lead Rep. System
5.5.2R. For lead in housing, increase the number of risk assessments/inspections reviewed to 400 reports.	7 (2000)	≥400	307 (2004)	Yes	Env. Lead Rep. System
5.6. (DELETED)					
5.7R. Reduce nonfatal poisonings of children (<19) from exposures to household chemicals by 1 percent.	8400 (2000)	≤8316	9044 (2004)	No	TESS
5.8R. Increase number of “short” radon test kits conducted.	2042 (2003)	≥3000	2801 (2003)	Yes	Public Protection and Safety Database
5.9. – 5.11. (DELETED)					
5.12. Reduce the number of injuries and deaths to children caused by defective consumer products.	Database to be developed in 2006	TBD	TBD	TBD	
5.13. (DELETED)					
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.	8 counties deemed non-attainment for 8 hour ozone (2004); 6 counties deemed non-attainment for fine particulate (2005)	All counties Re-designated to attainment	8 counties deemed non-attainment for 8 hour ozone (2005); 6 counties deemed non-attainment for fine particulate (2005)	No	Federal Air Quality Systems Database

Summary of Objectives for Environmental Health	Baseline	HK 2010 Target	Mid-Decade Status	Progress	Data Source
5.15N. Reduce hazardous and toxic air pollutants to levels that protect Kentucky's citizens from excess cancer incidences and/or unacceptable risks.	TBD	TBD	TBD	TBD	

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