Kentucky Children’s Oral Health Profiles 2001

State and Regional Comparisons of Key Oral Health Measures in Kentucky

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Abstract

Kentucky Children’s Oral Health Survey (KCOHS)

The 2000-01 Kentucky Children’s Oral Health Survey (KCOHS) was a cooperative effort of the Kentucky Department for Public Health, the University of Kentucky and the University of Louisville. KCHOS provided an important benchmark of the oral health of Kentucky’s school children. Findings have been used to establish a state profile from this profile for an ongoing children’s oral health surveillance program. Benchmarks will also be used to evaluate progress towards Healthy Kentuckians 2010 objectives.

As part of KCOHS, over 5,600 third and sixth grade school children across Kentucky received a dental screening. These children were selected using a scientific sample of schools and school classrooms. The sample permits high levels of confidence (95% +/- 5%) of results for five regions in Kentucky and the Commonwealth. Both private and public schools were included. For each child in the clinical survey, a parent or guardian also completed a parent questionnaire that provided consent and additional dental, medical and insurance information about the child.

Regional and baseline profiles for 3rd and 6th graders have also been developed from KCOHS findings for Western Kentucky, Eastern Kentucky, Northern Kentucky, Central Kentucky and the Louisville Region (see the map on page 2 for regions).

Since information was also needed for our preschool children, 24 – 59 month old children were screened by dental and non-dental personnel in the offices of pediatricians, family practice physicians, health departments and pediatric dentists. 572 children were screened across the state; regional level data is not available for preschool children.

Kentucky Children’s Oral Health Surveillance Program (KCOHSP)

The KCOHSP has been designed to monitor the oral health of 3\textsuperscript{rd}, 6\textsuperscript{th} and 11\textsuperscript{th} grade students in Kentucky on an ongoing basis. All students for each grade level will be invited to participate. At least two elementary schools will be selected from each regional pool of KCOHS schools. The closest middle and high schools in the selected counties will also be asked to participate. All students at 3\textsuperscript{rd}, 6\textsuperscript{th} and 11\textsuperscript{th} grade levels will be invited to participate. Approximately 30 schools and 1,000 children will be involved to track and assess oral health status trends in Kentucky.

In 2003 this program is being implemented by the University of Kentucky with the endorsement of the Kentucky Department of Education.
State and Regional Profiles

Kentucky Children’s Oral Health Surveillance Program (KCHOSP)

NOTE: Data from this survey can be reported only on a state or regional level.

These same baseline oral health surveillance profiles have also been established for each region included in the 2001 Kentucky Children's Oral Health Survey (Western Kentucky, Eastern Kentucky, Louisville, Northern Kentucky and Central Kentucky). Separate profiles are also available by region for Kentucky 3rd graders and 6th graders. Questionnaire results similar to Parent Reports are also available for 8th graders by region and for Kentucky.

No clinical dental screening information is available for 8th graders. As the oral health surveillance system evolves, both questionnaire and dental screening information will be available for 3rd, 6th and 11th grade students. Inclusion of 11th graders will provide information on Kentucky’s schoolchildren at a timely point prior to their entry into the workforce, further education or other career choices.
Kentucky

Parent Report (via questionnaire as part of consent process for dental screenings)
(3rd and 6th graders - 5962 students)

Percent of children reported to have a toothache in the past 6 months.

- No, 83.7%
- Yes, 12.3%
- Don't Know, 4.0%

Time since last dental visit

- <1 yr: 74.5%
- > 1 yr: 19.8%
- Never: 3.5%
- Don't Know: 2.2%

Type of dental insurance

- None: 21.2%
- Other: 45.0%
- Medicaid: 14.6%
- KCHIP: 14.1%
- NR: 5.1%

Ability to obtain care by those needing it

- Able: 74.5%
- Unable: 23.3%
- Don't Know: 2.2%

Dental Screening (visual dental screening without x-rays)
(3rd and 6th graders - 5603 students)

Percentage of 3rd and 6th (combined) graders with:
- preventive dental sealants: 29.1%
- need for urgent dental care (within 24 hours): 3.9%
- need for early dental care (within weeks): 28.5%
- oral injuries: 7.6%
- untreated tooth decay: 28.7%
- decayed first permanent molar teeth: 15.6%
- caries experience (history of tooth decay): 56.1%
- need for dental treatment: 30.9%

# of Tx Visits Needed

(One quadrant of treatment needed = one hour treatment visit)

- None: 69.1%
- One: 14.5%
- Two: 10.0%
- Three: 3.4%
- Four: 3.0%
Eastern Region

Parent Report (via questionnaire as part of consent process for dental screenings)
(3rd and 6th graders - 981 students)

Percent of children reported to have a toothache in the past 6 months.

- Yes, 13.7%
- No, 83.0%
- Don't Know, 3.3%

Time since last dental visit

- Never, 4.4%
- <1 yr, 74.3%
- >1 yr, 18.9%
- Don't Know, 2.4%

Ability to obtain care by those needing it

- Able, 73.9%
- Unable, 24.1%
- Don't Know, 2.0%

Type of dental insurance

- None, 20.9%
- Medicaid, 23.2%
- KCHIP, 21.4%
- Other, 30.1%
- NR, 4.4%

Dental Screening (visual dental screening without x-rays)
(3rd and 6th graders - 919 students)

Percentage of 3rd and 6th (combined) graders with:
- preventive dental sealants: 31.6%
- need for urgent dental care (within 24 hours): 7.7%
- need for early dental care (within several weeks): 30.4%
- oral injuries: 7.1%
- untreated tooth decay: 32.6%
- decayed first permanent molar teeth: 19.8%
- caries experience (history of tooth decay): 60.5%
- need for dental treatment: 34.6%

# of Tx Visits Needed

- None, 65.4%
- One, 15.5%
- Two, 11.0%
- Three, 3.4%
- Four, 4.7%

(one quadrant of treatment needed = one hour treatment visit)
Northern Region

Parent Report (via questionnaire as part of consent process for dental screenings)
(3rd and 6th graders - 1281 students)

Percent of children reported to have a toothache in the past 6 months.
- No, 85.6%
- Yes, 10.7%
- Don't Know, 3.7%

Time since last dental visit
- <1 yr: 69.2%
- > 1 yr: 22.9%
- Never: 5.9%
- Don't Know: 2.0%

Ability to obtain care by those needing it
- Able: 70.6%
- Unable: 26.8%
- Don't Know: 2.6%

Type of dental insurance
- Medicaid: 9.1%
- NR (No Insurance): 6.0%
- Other: 56.5%
- KCHIP: 9.8%
- None: 18.6%

Dental Screening (visual dental screening without x-rays)
(3rd and 6th graders - 1232 students)

Percentage of 3rd and 6th (combined) graders with:
- Preventive dental sealants: 30.1%
- Need for urgent dental care (within 24 hours): 3.5%
- Need for early dental care (within several weeks): 28.4%
- Oral injuries: 9.1%
- Untreated tooth decay: 30.6%
- Decayed first permanent molar teeth: 12.4%
- Caries experience (history of tooth decay): 56.7%
- Need for dental treatment: 31.6%

# of Tx Visits Needed
- None: 68.4%
- One: 13.7%
- Two: 11.0%
- Three: 3.9%
- Four: 3.0%

(one quadrant of treatment needed = one hour treatment visit)
Western Region

Parent Report (via questionnaire as part of consent process for dental screenings)
(3rd and 6th graders - 1146 students)

Percent of children reported to have a toothache in the past 6 months.

- Don't Know, 4.6%
- Yes, 11.7%
- No, 83.7%

Time since last dental visit

- Never 4.5%
- > 1 yr 16.2%
- <1 yr 75.8%
- Don't Know 3.5%

Ability to obtain care by those needing it

- Able 74.5%
- Unable 22.8%
- Don't Know 2.7%

Type of dental insurance

- Other 45.1%
- NR 5.8%
- Medicaid 14.0%
- KCHIP 12.4%
- None 22.7%

Dental Screening (visual dental screening without x-rays)
(3rd and 6th graders - 1056 students)

Percentage of 3rd and 6th (combined) graders with:
- preventive dental sealants. 21.9%
- need for urgent dental care (within 24 hours). 2.9%
- need for early dental care (within several weeks). 30.0%
- oral injuries. 8.1%
- untreated tooth decay. 27.8%
- decayed first permanent molar teeth. 11.9%
- caries experience (history of tooth decay). 54.9%
- need for dental treatment. 32.6%

# of Tx Visits Needed

- None 67.5%
- One 14.6%
- Two 11.4%
- Three 4.3%
- Four 2.2%

(one quadrant of treatment needed = one hour treatment visit)
Central Region

Parent Report (via questionnaire as part of consent process for dental screenings)
(3rd and 6th graders - 1337 students)

Percent of children reported to have a toothache in the past 6 months.

- Yes, 11.7%
- No, 83.2%
- Don't Know, 5.0%

Time since last dental visit

- Never
  - <1 yr: 76.9%
  - > 1 yr: 18.5%
  - Don't Know: 1.3%

Ability to obtain care by those needing it

- Able: 77.2%
- Unable: 21.4%
- Don't Know: 1.4%

Type of dental insurance

- Other: 53.3%
- None: 23.3%
- Medicaid: 8.3%
- KCHIP: 10.5%
- NR: 4.6%

Dental Screening (visual dental screening without x-rays)
(3rd and 6th graders - 1275 students)

Percentage of 3rd and 6th (combined) graders with:
- Preventive dental sealants: 39.4%
- Need for urgent dental care (within 24 hours): 2.8%
- Need for early dental care (within several weeks): 20.0%
- Oral injuries: 4.9%
- Untreated tooth decay: 19.2%
- Decayed first permanent molar teeth: 9.6%
- Caries experience (history of tooth decay): 51.2%
- Need for dental treatment: 20.3%

# of Tx Visits Needed

- None: 79.6%
- One: 10.0%
- Two: 5.8%
- Three: 2.6%
- Four: 2.0%

(one quadrant of treatment needed = one hour treatment visit)
Louisville Region

Parent Report (via questionnaire as part of consent process for dental screenings)
(3rd and 6th graders - 1217 students)

Percent of children reported to have a toothache in the past 6 months.

- No, 84.0%
- Yes, 12.2%
- Don't Know, 3.8%

Time since last dental visit

- <1 yr, 74.4%
- >1 yr, 17.7%
- Never, 5.9%

Ability to obtain care by those needing it

- Able, 75.3%
- Unable, 22.3%
- Don't Know, 2.4%

Type of dental insurance

- Other, 53.9%
- Medicaid, 10.9%
- NR, 5.0%

Dental Screening (visual dental screening without x-rays)
(3rd and 6th graders - 1121 students)

Percentage of 3rd and 6th (combined) graders with:

- Preventive dental sealants, 23.4%
- Need for urgent dental care (within 24 hours), 0.4%
- Need for early dental care (within several weeks), 32.0%
- Oral injuries, 8.9%
- Untreated tooth decay, 31.2%
- Decayed first permanent molar teeth, 21.2%
- Caries experience (history of tooth decay), 54.6%
- Need for dental treatment, 32.4%

# of Tx Visits Needed

- None, 67.6%
- One, 17.6%
- Two, 9.6%
- Three, 2.9%
- Four, 2.3%
State and Regional Comparisons of Baseline Oral Health Profiles

PARENT REPORTS FROM QUESTIONNAIRE

Percent of Children Reported to Have Toothache in the Past Six Months

- Kentucky: 12.3%
- Eastern: 13.7%
- Northern: 10.7%
- Western: 11.7%
- Central: 11.7%
- Louisville: 12.2%

Time Since Child’s Last Dental Visit: Within Last Year

- Kentucky: 74.5%
- Eastern: 74.3%
- Northern: 69.2%
- Western: 75.8%
- Central: 76.9%
- Louisville: 74.4%
Time Since Child’s Last Dental Visit: More than One Year Ago

- Kentucky: 19.8%
- Eastern: 18.9%
- Northern: 22.9%
- Western: 16.2%
- Central: 18.5%
- Louisville: 17.7%

Time Since Child’s Last Dental Visit: Never Been

- Kentucky: 3.5%
- Eastern: 4.4%
- Northern: 5.9%
- Western: 4.5%
- Central: 3.3%
- Louisville: 5.9%

Time Since Child’s Last Dental Visit: Don’t Know

- Kentucky: 2.2%
- Eastern: 2.4%
- Northern: 2.0%
- Western: 3.5%
- Central: 1.3%
- Louisville: 2.0%
Percent of Children Reported as Needing Care in the Past 12 Months Who Could Not Get Care

<table>
<thead>
<tr>
<th>Regions</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kentucky</td>
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</tr>
<tr>
<td>Eastern</td>
<td>24.1</td>
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<tr>
<td>Northern</td>
<td>26.8</td>
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<tr>
<td>Western</td>
<td>22.8</td>
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<tr>
<td>Central</td>
<td>21.4</td>
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<tr>
<td>Louisville</td>
<td>22.3</td>
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Percent of Children Reported to Have No Dental Insurance

<table>
<thead>
<tr>
<th>Regions</th>
<th>Percentage</th>
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<tr>
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<td>Northern</td>
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<td>Western</td>
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<td>Central</td>
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<tr>
<td>Louisville</td>
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</table>

Percent of Children Reported to Have Dental Insurance: Medicaid

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<td>14.0</td>
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<td>Central</td>
<td>8.3</td>
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<tr>
<td>Louisville</td>
<td>10.9</td>
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</table>
Percent of Children Reported to Have Dental Insurance: Kentucky Children’s Health Insurance Program (KCHIP)

![Bar chart showing the percentage of children reported to have dental insurance by region in Kentucky.](chart1)

Percent of Children Reported to Have Dental Insurance: Other Dental Insurance

![Bar chart showing the percentage of children reported to have other dental insurance by region in Kentucky.](chart2)
VISUAL DENTAL SCREENING (NO X- RAYS)

Percent of Children with Caries Experience

Percent of Children with Untreated Tooth Decay
Percent of Children with Need for Urgent Dental Care (Within 24 Hours)

Percent of Children with Need for Early Dental Care (Within Weeks)

Percent of Children with Decayed First Permanent Molar Teeth
Percent of Children with Preventive Dental Sealants

Percent of Children with Oral Injuries

Percent of Children Who Need Dental Treatment: No Visit Needed
Percent of Children Who Need Dental Treatment: One Visit Needed

Percent of Children Who Need Dental Treatment: Two Visits Needed

Percent of Children Who Need Dental Treatment: Three Visits Needed
Percent of Children Who Need Dental Treatment: Four Visits Needed

<table>
<thead>
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<tr>
<td>Eastern</td>
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<tr>
<td>Northern</td>
<td>3.0</td>
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<tr>
<td>Western</td>
<td>2.2</td>
</tr>
<tr>
<td>Central</td>
<td>2.0</td>
</tr>
<tr>
<td>Louisville</td>
<td>2.3</td>
</tr>
</tbody>
</table>
Kentucky 24 – 59 Month Olds  (number screened = 572 )

**Early Childhood Caries (ECC)**

- Age 2: 36.0%
- Age 3: 47.7%
- Age 4: 55.5%
- Total: 46.8%

**Severe Early Childhood Caries (S-ECC)**

- Age 2: 33.8%
- Age 3: 46.3%
- Age 4: 47.0%
- Total: 42.8%

**Has never seen dentist**

- Age 2: 53.1%
- Age 3: 45.6%
- Age 4: 19.4%
- Total: 39.3%
Child's dental condition judged to be Fair/Poor

<table>
<thead>
<tr>
<th>Age</th>
<th>Parent</th>
<th>Screener</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>11.5%</td>
<td>22.1%</td>
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<tr>
<td>3</td>
<td>17.6%</td>
<td>27.3%</td>
</tr>
<tr>
<td>4</td>
<td>20.5%</td>
<td>27.7%</td>
</tr>
<tr>
<td>Total</td>
<td>16.7%</td>
<td>25.9%</td>
</tr>
</tbody>
</table>

Urgency of Needed Treatment

- Urgent, 8.6%
- Early, 37.4%
- No obvious need, 54.0%

Type of dental insurance

- Private, 28.9%
- Medicaid, 38.8%
- KCHIP, 15.1%
- None, 13.1%
- DK/NR, 4.1%

Snack frequency

- Every day, 57.3%
- 3-4 x/ wk, 25.8%
- Seldom/ never, 13.0%
- DK/NR, 3.9%
Counties with at least one site selected for the KCOHS

Anderson  Kenton
Barren    Knox
Boone     LaRue
Bourbon   Leslie
Boyd      Madison
Boyle     Marion
Bracken   Marshall
Bullitt   Mason
Calloway  McCracken
Campbell  McCreary
Carroll   Mercer
Carter    Monroe
Christian Muhlenberg
Cumberland Nelson
Daviess   Nicholas
Fayette   Oldham
Franklin  Owen
Garrard   Pendleton
Grant     Perry
Graves    Pike
Hardin    Rowan
Harrison  Scott
Henderson Taylor
Henry     Union
Hickman   Warren
Hopkins   Washington
Jackson   Whitley
Jefferson Woodford
Jessamine
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