



Kentucky Public Health

Prevent. Promote. Protect.

Kentucky Annual School Immunization Survey Report 2016 - 2017

**Kentucky Immunization Program
Kentucky Department for Public Health
Cabinet for Health and Family Services**

April 2018

The Kentucky Annual School Immunization Survey Report was published by the Kentucky Immunization Program, Division of Epidemiology and Health Planning, Kentucky Department for Public Health, Cabinet for Health and Family Services, Frankfort, KY.

This report about age-specific immunizations of Kentucky school-aged children in public and private elementary and middle schools was prepared after analysis and interpretation of results for data reported to the Kentucky Department for Public Health through March 31, 2017.

Acknowledgements

This report was prepared by:

Sarah Wible, Epidemiologist I, Kentucky Immunization Program

Robert L. Brawley, MD, MPH, FSHEA, Chief, Infectious Disease Branch (ret.)

We would like to acknowledge the persons and programs in Kentucky public health that helped with survey distribution, data collection and reporting, including Kentucky Immunization Program Field Staff and all Local Health Department survey contacts.

This report was created with oversight from Margaret Jones, RN, BSN (Kentucky Immunization Program Manager). The report profile was also created in collaboration with the Centers for Disease Control and Prevention (CDC).

School Immunization Reporting Requirement

According to state regulation 902 KAR 2:055, “(1) Kindergartens and public and private elementary and secondary schools shall submit to the local health department in their area immunization results for Kindergartens and Sixth Grades” on the Commonwealth of Kentucky School/Facility Annual Immunization Survey, and “(2) The annual survey shall include the number of: (a) Students in the grade surveyed; (b) Missing immunization records; (c) Religious exemptions; (d) Medical exemptions; and (e) Children who have received age-appropriate immunizations.”

Suggested Citation: Division of Epidemiology and Health Planning, Infectious Disease Branch, Kentucky Immunization Program. Kentucky Annual School Immunization Survey Report, 2016 – 2017, [*inclusive page numbers*]. Frankfort, KY: Kentucky Department for Public Health, April 2018.

Table of Contents

Annual Report for 2016-2017

Labels for Charts and Tables	1
Background	2
Methods	2
Results	5
Discussion	14
References	18

Appendix A: Immunization Survey Tools

- Kindergarten (A-1)
- Sixth Grade (A-2)

Appendix B: Immunization Profiles for All Schools, By County

- Kindergarten (B-1)
- Sixth Grade (B-2)

Appendix C: Changes in Percent of Coverage Rates by Vaccine and Changes in Rank order of Counties by Vaccine, Comparing Results of the 2015-2016 to the 2016-2017 Annual School Immunization Surveys, by County for Kindergarten or Sixth Grade

- Kindergarten – Sorted by County Name in Alphabetical Order (C-1)
- Sixth Grade – Sorted by County Name in Alphabetical Order (C-2)

Labels for Charts and Tables

The following labels are used for charts and tables throughout this report:

- # of Children: Number of children at the school in that grade/group
- # Cert: Number children in that grade/group with Current, Provisional or Expired Certificates
- Miss. Cert: Number of children with a missing certificate (i.e., no certificate on file at the school)
- Med Ex: Number of children with a Commonwealth of Kentucky Certificate of Medical Exemption on file at the school
- Rel Ex: Number of children with a Commonwealth of Kentucky Certificate of Religious Exemption on file at the school
- DTaP: Number of children with 4 or more doses of Diphtheria, Tetanus, and Acellular Pertussis vaccine
- HepB: Number of children with 3 or more doses of Hepatitis B vaccine
- MenACWY: Number of children with 1 or more doses of quadrivalent Meningococcal vaccine
- MMR: Number of children with 1 dose of Measles, Mumps, Rubella (MMR) vaccine; or 1 dose of MMR vaccine plus 1 dose a measles containing vaccine; or 2 doses of MMR vaccine depending on a child's age
- Polio: Number of children with 3 or more doses of Poliovirus vaccine
- Tdap/Td Booster: Number of Sixth Grade children with a Tetanus, Diphtheria, and Acellular Pertussis (Tdap) or Tetanus Diphtheria (Td) booster after 10 years of age
- Varicella or VAR: Number of children with 1 or 2 doses of Varicella vaccine depending on a child's age

Background

The Kentucky Immunization Program (KIP) conducts a Kentucky Annual School Immunization Survey to assess the vaccine coverage of children in accordance with Kentucky Administrative Regulation 902 KAR 2:055 and Kentucky Revised Statute KRS 158.037.

The survey targets all Kentucky Kindergarten and Sixth Grade students. The purpose of this report is to disseminate the results of the survey for the 2016-2017 school year and offer recommendations to improve rates of immunization in Kentucky to reduce illness and death from vaccine-preventable diseases (VPDs).

Methods

Data Collection and Follow-up

The Kentucky Annual School Immunization Survey tools for 2016-2017 (see Appendix A) were distributed to each local health department (LHD) by KIP in late-August 2016 in electronic formats. LHDs distributed the survey materials to every public and private school with at least one Kindergarten class and/or Sixth Grade class. In 2016, each child was assessed for the presence of an immunization certificate on file, the certificate's expiration date, and the number of doses of each age-appropriate vaccine received. The Kentucky Immunization Program asked schools to assess each certificate for receipt of the following immunizations:

- Four or more doses of DTaP vaccine,
- Three or more doses of Poliovirus vaccine (Polio),
- Three or more doses of Hepatitis B (HepB) vaccine,
- Two doses of MMR vaccine,
- Two doses of Varicella vaccine (VAR) or a history of chickenpox disease,
- One dose of Tdap vaccine or one Td booster dose (for students older than 10 years of age), and
- One dose of quadrivalent Meningococcal vaccine (MenACWY, for students older than 10 years of age).

Each immunization certificate of a child that qualified by grade or age to be included in the assessment was reviewed, and immunization data were documented on the survey. The survey did not collect individual immunization information for each child, but instead requested aggregated totals for the whole grade or group for a school.

GenTrack web-based software was used to develop the online survey interface and conduct the online survey. The online survey had built-in validation checks, reducing error possibility prior to submitting data to DPH.

The deadline to submit surveys electronically was December 31, 2016. Each survey was reviewed by KIP staff to ensure reliability and validity. Schools that submitted surveys with missing or invalid information were contacted via phone and asked to make corrections or to resubmit the survey. Multiple attempts were made to obtain completed surveys from nonresponsive schools after the

deadline. LHD personnel were asked to follow up with noncompliant entities in their county at least three times, one or more of those times in writing. If attempts to collect survey data from schools, particularly Kindergartens, were unsuccessful, KIP field and central staff made site visits during the months of February and March 2017 to review charts and to directly collect the data. This enabled KIP staff to report 88% of school-based Kindergarteners' (both public and private) aggregate vaccine-specific data to CDC by the April 30, 2017 deadline.

Any survey received after March 31, 2017, was not included in the analysis.

All survey data were entered into Microsoft Excel 2016 and Epi Info v.7, data were cleaned, duplicates were removed, and the information was analyzed, interpreted, and organized into this report.

Outcome Measures

Several objectives for Immunizations are defined by Healthy People 2020 (HP 2020), <http://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases>. The attainment of age-appropriate target measure for these Objectives is used annually by the Kentucky Immunization Program to identify successful measures of vaccination compliance for school age children.

The age-appropriate HP 2020 target measures, assessed in schools, were:

Kindergarten, by selected vaccines and doses:

- 95% or greater for 4+ DTaP, 3+ Polio, 3+ HepB, 2 MMR, and 2 Varicella;

Sixth Grade, by selected vaccines and doses:

- 80% or greater for 1 Tdap and 1 MenACWY, and
- 90% or greater for 2 Varicella

Two target Immunizations measures defined by the KIP for adolescents, were adapted from definitions in Healthy People 2010 Objectives,

https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Datasets/DATA2010/Focusarea14/O1427a.pdf

and

https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Datasets/DATA2010/Focusarea14/O1427b.pdf.

The age-appropriate KIP target measures, assessed in schools, were:

Sixth Grade, by selected vaccines and doses:

- 95% or greater for 3 HepB and 2 MMR

Results

Response rates for both Kindergarten and Sixth Grades were 88% this year. Field and central staff were used to collect Kindergarten and Sixth Grade data in areas where survey returns were low in previous years, further increasing response rates in counties where surveys had not been completed by the deadline.

Table 1 gives an overview of the total response rate for the survey in school year 2016-2017 compared to the previous eight school years (i.e., 2008-2009, 2009-2010, 2010-2011, 2011-2012, 2012-2013, 2013-2014, 2014-2015, and 2015-2016). LHDs were integral in assisting with distribution lists and clarification of district mergers and school closures in their respective counties, in addition to diligently working to collect surveys from nonresponsive institutions. KIP staff conducted site visits after deadlines elapsed to collect data from nonresponsive schools housing a Kindergarten.

Table 1. Number of Schools with Assessments for Kindergarten or Sixth Grade

Assessment School Year		Kindergarten		Sixth Grade	
		No.	%	No.	%
2016-2017	Number of Schools	792	88	526	87.2
2015-2016	Number of Schools	893	100	599	100
2014-2015	Number of Schools	925	100	613	100
2013-2014	Number of Schools	946	100	590	97.0
2012-2013	Number of Schools	917	96.0	569	95.0
2011-2012	Number of Schools	915	88.7	572	85.6
2010-2011	Number of Schools	818	79.2	525	77.7
2009-2010	Number of Schools	866	85.1	544	81.6
2008-2009	Number of Schools	935	93.7	580	84.3

Table 2 shows the number of children in 2016-2017 with medical or religious exemptions and the number of children who have received the required number of age-appropriate doses of each vaccine. A medical or religious exemption must be indicated on a Commonwealth of Kentucky Certificate of Medical Exemption or a Commonwealth of Kentucky Certificate of Religious Exemption, respectively. Children who were not up-to-date on required immunizations were given a 30-day grace period to become up-to-date or to begin a vaccine series towards becoming up-to-date. Immunization certificates were documented in 93.8% of Kindergartners and 97.6% of Sixth Graders. Overall, less than 2.9% of all children surveyed had missing certificates and about 1% had a medical or a religious exemption on file.

Kentucky medical providers did a commendable job of administering the appropriate number of age-specific vaccines. Statewide, compliance rates for vaccine administration were above 90% for all Kindergarten vaccines assessed in the survey.

Despite the high reported rates, the state averages for all vaccines for children in Kindergarten were still below the Healthy People (HP) 2020 Objectives¹ of 95% or greater for 4+ DTaP, 3+ Polio, 3+ HepB, 2 MMR, and 2 Varicella. The state averages also did not meet Sixth Grade HP 2020 Objectives for 2 Varicella (90% or greater).

Results in Table 3 provide the minimum, median, maximum, and average coverage rates for each vaccine. When using the statistics comparison table, please note the acceptable immunization coverage levels for age-specific vaccines. The range of age-specific vaccination rates could vary significantly with the self-report methodology, and caution should be used when interpreting results based on low reporting numbers. In addition, some schools complete the survey within the first few weeks of receiving the package, counting children as noncompliant when doctor's appointments are scheduled for immunizations. Other schools or facilities wait until the final deadline in December, working towards getting all students current and up-to-date prior to reporting. These factors could contribute to variations in reporting.

Table 2. Percentage of Certificates, Exemptions, and Vaccines by Age Group

Type of School Class		# Child	# Cert.	Miss Cert.	Med. Ex.	Rel. Ex.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella	Tdap/ Td Booster	1 MenACWY
Kindergarten	# Child	48,593	45,596	2100	209	343	45,571	45,630	45,349	44,715	44,328	N/A	N/A
	%	N/A	93.8%	4.3%	0.4%	0.7%	93.8%	93.9%	93.3%	92%	91%		
Sixth Grade	# Child	48,146	46,992	696	190	278	N/A		45,901	46,587	43,240	41,510	39,385
	%	N/A	97.6%	1.4%	0.4%	0.5%			95.3%	96.8%	89.8%	86.2%	81.8%

The number of MMR and Varicella doses is dependent on a child's age. Children aged 19 through 47 months are required to have 1 dose of MMR and 1 dose of Varicella, while children aged 48 months and older are required to have 2 doses of MMR and 2 doses of Varicella.

Table 3. Average, Median, and Range of Vaccination Percentage by Age Group

		# Students Reported	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella	Tdap/ Td Booster	1 MenACWY
Kindergarten	Minimum (Lowest County Count or Rate)	30	73.5%	75.8%	68.8%	70.4%	51.6%	N/A	N/A
	Median	237	94.6%	94.9%	94.2%	93.0%	93.0%		
	Maximum (Highest County Count or Rate)	9138	100%	100%	100%	100%	100%		
	Average	445	93.0%	93.2%	92.7%	91.2%	90.4%		
Sixth Grade	Minimum (Lowest County Count or Rate)	16	N/A	N/A	0.51%	55.6%	41.9%	31.7%	29.9%
	Median	229			98.2%	98.2%	95.0%	89.8%	87.6%
	Maximum (Highest County Count or Rate)	8876			100%	100%	100%	100%	100%
	Average	433			95.3%	96.8%	89.8%	86.2%	81.8%

Kindergarten

Eighty-eight percent of schools with Kindergarten classes, both public and private institutions, completed the annual survey for the 2016-2017 school year. KIP received surveys from 792 schools assessing antigen-specific immunizations for 45,596 children.

Highlights for Kindergarten Students

- 74.2% of counties reported >90.0% of certificates on file were current
- 2.5% counties had >1.0% of students with a medical exemption
 - Barren and Lincoln Counties reported the largest percentage of children with medical exemptions (12.7%)
- 22.5% counties had >1.0% of students with a religious exemption
 - Carlisle County reported the largest percentage of religious exemptions (7.8%)
- 11.7% counties had >10.0% of students with no certificate on file
- 48.3% counties reported 95.0% or greater of children receiving 4 or more DTaP
- 50% counties reported 95.0% or greater of children receiving 3 or more Polio
- 45% counties reported 95.0% or greater of children receiving 3 or more HepB
- 41.6% counties reported 95.0% or greater of children receiving 2 or more MMR
- 38.3% counties reported 95.0% or greater of children receiving 2 or more Varicella
- 40.8% counties met the Healthy People 2020 Objectives for each antigen (95% or greater for DTaP, Polio, HepB, MMR, and Varicella)

The following 49 counties reported 95.0% or greater for each vaccine (4+ DTaP, 3+ Polio, 3+ HepB, 2+ MMR, and 2 Varicella) in Kindergarteners.

Adair	Breckenridge	Fayette	Greenup	Kenton	Oldham	Simpson
Allen	Caldwell	Fleming	Hancock	LaRue	Owen	Spencer
Anderson	Calloway	Floyd	Henderson	Marion	Pike	Taylor
Ballard	Campbell	Fulton	Henry	Martin	Pulaski	Todd
Barren	Casey	Grant	Hickman	McLean	Rockcastle	Trigg
Boone	Clay	Graves	Hopkins	Meade	Russell	Wayne
Bracken	Edmonson	Grayson	Jackson	Morgan	Shelby	Woodford

Sixth Grade

Eighty-seven percent of schools with Sixth Grade, both public and private institutions, completed the annual survey for the 2016-2017 school year. KIP received surveys from 526 schools assessing antigen-specific immunizations for 46,992 children.

Highlights for Sixth Grade Students

- 98% of all counties reported >90.0% of certificates on file were current
- 7.2% counties had >1.0% of students with a medical exemption
 - Lincoln County reported the largest percentage of medical exemptions (4.3%)
- 16.4% counties had >1.0% of students with a religious exemption
 - Carlisle County reported the largest percentage of religious exemptions (6.1%)
- 1.2% counties had >10.0% of students with no certificate on file
- 77.2% counties reported 80.0% or greater of children receiving 1 Tdap/Td Booster
- 67.3% counties reported 80.0% or greater of children receiving 1 MenACWY
- 73.6% counties reported 95.0% or greater of children receiving 3 or more HepB
- 85.5% counties reported 95.0% or greater of children receiving 2 or more MMR
- 71.8% counties reported 90.0% or greater of children receiving 2 or more Varicella
- 35.5% counties met the Healthy People 2020 Objectives for each antigen (80% or greater for Tdap/Td Booster and MenACWY; and 90% or greater for Varicella), and the age-appropriate KIP target measures (95% or greater for HepB and MMR)

The following 28 counties reported 95.0% or greater for each vaccine (1 Tdap, 1 MenACWY, 3+ HepB, 2 MMR, and 2 Varicella) in Sixth Graders.

Ballard	Fleming	Hickman	Madison	Menifee	Pike	Spencer
Breckenridge	Floyd	Hopkins	Marion	Mercer	Powell	Taylor
Calloway	Fulton	Larue	Mclean	Monroe	Pulaski	Wayne
Campbell	Graves	Lincoln	Meade	Oldham	Robertson	Woodford

Improvement Trends in Counties since the 2016-2017 Survey

Several improvement trends were noted at the county level from previous year's surveys to the 2016-2017 survey:

- For Kindergarten, the Healthy People 2020 Objectives for each antigen (95% or greater for DTaP, Polio, HepB, MMR, and Varicella) were met in 40.8% of counties compared to 40% in the 2015-2016 survey and 36.7% of counties in the 2014-2015 survey.
- For Sixth Grade, 77.2% counties reported 80.0% or greater of children receiving 1 Tdap/Td booster vaccine compared to 70.0% of counties in the 2015-2016 survey.

Discussion

An ongoing challenge for medical providers, health department, health plans, and parents is that immunization successes must be repeatedly earned with each birth cohort. Successes in one year do not necessarily translate to another school year without the ongoing commitment to achieve immunization goals each year.

Since the 2011-2012 Annual School Immunization Survey, statewide Kindergarten results for 4+ DTaP, 3+ Polio, 3+ HepB, and 2 MMR have been 90.0% or greater for coverage of each vaccine, but have not surpassed the Healthy People 2020 Objectives to meet or exceed 95% or greater coverage.

Two doses of Varicella among Kindergarteners increased from 75.8% in 2011 to 91.5% in 2016 and remained at 90% in 2017. The increase may be a direct result of the 902 KAR 2:060 regulation revisions of 2010, requiring two doses of varicella for school entry for Kindergarteners. Provider and parent education and public health awareness campaigns likely have effectively influenced the varicella coverage rates during this period.

Since the 902 KAR 2:060 immunization regulation change of 2010, Sixth Grade compliance rates for one dose of Tdap, one dose of MenACWY, and two doses of Varicella have drastically improved from the 2011 survey to the 2016 survey. Only 72.4% of Sixth Graders had one dose of Tdap, 63.1% had one dose of MenACWY, and 68.2% had two doses of Varicella in 2011. Since 2011, the rates have surpassed the Healthy People 2020 Objectives for 80.0% or greater of Sixth Graders for Tdap and MenACWY. These increases likely are a direct result of the KIP adolescent education campaign and promotion of the regulation revisions. Evaluation practices of school vaccination rates increased during this period, stemming from the inception of this report, promoting competition between school districts.

Kindergarten results have not exceeded the Healthy People 2020 objectives of 95% or greater for DTaP, Polio, HepB, MMR and Varicella. Herd immunity is established between 92-95%, reducing the likelihood of an infectious transmission. However, to reach "a critical vaccination level, [for] herd immunity and disease eradication (Betsch, Bohm, & Korn, 2013),"² 95% vaccination levels must be achieved.

Fine, Eames and Heymann (2011) state “maintenance of high coverage is particularly difficult as the diseases decline in frequency, and as populations become more sophisticated and more likely to question recommendations (p. 915).”³ Unless direct communication about the social benefits to vaccination are relayed to parents, there will continue to be increases in “free-ride” or reliance on herd immunity to avoid vaccination within school settings. Therefore, more education needs to be provided to parents about the public health impacts vaccinations have within schools, especially for the protection of vulnerable students who are immunocompromised.

Limitations

There were several limitations to this study. First, the survey data were self-reported. KIP relies heavily on school and childcare personnel to accurately report vaccine-specific data. Although the supplemental worksheet to line list grade rosters to tally results for vaccine compliance was an aid in correctly identifying students who were current and up-to-date, completion is not mandated by law. KIP staff used a weighted validation process whereby field staff were sent to schools in each region to systematically sample students in the Kindergarten class to ensure the data were being accurately reported. In some instances, KIP field staff were used as data collectors for non-respondent schools to increase survey compliance, but only for the Kindergarten class per CDC guidance. Further validation measures will be implemented in future years to assure the data are collected correctly and reported accurately.

Homeschooled Children

The Kentucky Administrative Regulation for “Immunization schedules for attending child day care centers, certified family child care homes, other licensed facilities which care for children, preschool programs, and public and private primary and secondary schools,” (902 KAR 2:060 effective in Dec 2010) does not mandate immunization requirements for children in Kentucky who are homeschooled. KIP does not have a current method to assess vaccination coverage for homeschooled children.

A2Z Home’s Cool estimated that approximately 20,150 children in Kentucky aged 5 through 17 years were taught at home during the 2016-2017 school year (http://a2zhomeschooling.com/all_time_favorites/numbers_homeschooled_students/). Using KDE 2016-2017 enrollment data, KIP staff estimate that approximately 1,521 Kindergarteners and 1,527 Sixth Graders were home schooled during this period and accounted for 2.6% of the age-specific population.

Recommendations for Using the Results of the Kentucky Annual School Immunization Survey

It is recommended that this report be used by school district administrators to assess district vaccination compliance and identify at-risk schools for the potential of vaccine preventable disease outbreaks. Kentucky has been in a statewide pertussis outbreak for several years, and this report can be used to identify schools with low pertussis containing (DTaP and Tdap) vaccination compliance rates for the potential of an outbreak. By identifying at-risk schools and promoting immunizations, school district administrators will reduce the likelihood of an outbreak and decrease exposures to vaccine preventable diseases for immunocompromised students or students that have contraindications for administration of certain vaccines.

School administrators can also use this report to adapt policies and procedures for school enrollment to require documentation of vaccination compliance prior to the first day of school. They can implement protocols for school nurses and other identified personnel to enroll as Kentucky Immunization Registry users to view and print current immunization certificates to be filed as part of students' educational records.

School nurses can use this report to promote the importance of immunizations to parents. Information about immunizations can be shared with parents who are vaccine-hesitant, or do not understand the adverse public health implications of low compliance for recommended immunizations on the school and community. This report can also help to promote back-to-school vaccination clinics and partnerships with providers and public health to increase vaccination compliance in low coverage rate counties.

Providers can use this report to evaluate their practices for childhood vaccination compliance, especially in low coverage rate areas. Further, it is recommended that all providers enroll in the KYIR and enter historical immunization data in addition to new vaccine doses administered to create a single, current immunization certificate for each child.

This report can be used by public health officials to implement strategies to promote vaccinations for the entire community and promote back-to-school immunization clinics. Public health officials can collaborate with district school administrators and area providers to create vaccination awareness campaigns to educate about the implications low vaccination coverage rates can have within vulnerable communities.

Conclusion

School entry regulations requiring childhood immunizations serve to protect children against once common vaccine-preventable diseases, some of which are still circulating widely in other areas of the world. “School immunization requirements have not only been highly successful in reducing the incidence of disease but also in improving the immunization levels in school children.”⁵ In a 2-year effort, the Cincinnati primary school system was able to increase immunization levels of school-age children from 60% to 91% by following a program based upon its legal authority to require immunizations.³ “Laws requiring that children be immunized before they begin school have contributed to a 98% to 100% reduction in the incidence of [Vaccine Preventable Diseases].”⁶ According to Hinman, Orenstein, Williamson, and Darrington (2002), policy makers must balance the need to provide individual choice with the need to protect children’s health.⁵

Schools can take steps to increase the number of students that are up-to-date on immunizations. Schools can keep immunization records neat and organized to make it easier to find files and identify when a child needs an immunization. Schools can implement a tickler filing system and organize files based on which children will need an updated vaccine by date. School administrators can also check student records regularly for children not up-to-date on their immunizations and have a system in place to get each child immunized in a timely manner. For facilities that have electronic records, alerts can be set up to inform school staff when a child is no longer current on immunizations.

School administrators, medical providers, and parents can work together to ensure that children are made safe from morbidity and mortality caused by vaccine preventable diseases. KIP will continue to assess age-appropriate vaccines for children enrolled in school and childcare facilities to ensure they are current and up-to-date according to the state regulation (902 KAR 2:060) and the recommendations of the Advisory Committee on Immunization Practices (ACIP).

References

1. U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. Available at [<https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives>]. Accessed [May 18, 2016].
2. Betsch, C.; Bohm, R.; Korn, L. (2013). *Inviting Free-Riders or Appealing to Prosocial Behavior? Game-Theoretical Reflections on Communicating Herd Immunity in Vaccine Advocacy*. Health Psychology. Vol. 32, No. 9. pp. 978-985.
3. Fine, P.; Eames, K.; Heymann, D.L. (2011). *“Herd Immunity”: A Rough Guide*. Clinical Infectious Diseases. Vol. 52, No. 7. pp. 911-916.
4. Hill HA, Elam-Evans LD, Yankey D, Singleton JA, Dietz V. Vaccination Coverage Among Children Aged 19–35 Months — United States, 2015. MMWR Morb Mortal Wkly Rep 2016; 65:1065–1071. DOI: <http://dx.doi.org/10.15585/mmwr.mm6539a4>
5. Hinman, A.R.; Orenstein, W.A.; Williamson, D.E.; Darrington, D. (2002). *Childhood Immunizations: Laws that Work*. The Journal of Law, Medicine, & Ethics. Supp. Vol. 30, No. 3. pp. 122-127.
6. Anthony, N.; Reed, M, Leff; A.M, Hufer, J.; Stephens, B. (1977). *Immunization: Public Health Programming Through Law Enforcement*. American Journal of Public Health. Vol. 67, No. 8. pp. 763-764.
7. Salmon, D.A.; Omer, S.B.; Moulton, L.H.; Stokley, S.; deHart, M.P.; Lett, S.; Norman, B.; Teret, S.; Halsey, N.A. (2005). *Exemptions to School Immunization Requirements: The Role of School-Level Requirements, Policies, and Procedures*. American Journal of Public Health. Vol. 95, No. 3. pp. 436-440.

APPENDIX A

KENTUCKY ANNUAL SCHOOL IMMUNIZATION SURVEY REPORT 2016 – 2017

Immunization Survey Tool

**KINDERGARTEN A-1
SIXTH GRADE A-2**



COMMONWEALTH OF KENTUCKY
SCHOOL/FACILITY ANNUAL IMMUNIZATION SURVEY
Kindergarten
(902 KAR 2:055)

Please complete this form in its entirety.

1. Demographic Information

County: _____
School/Facility Name: _____
Address: _____
City: _____
State: _____ Zipcode: _____
Phone Number: _____

Type of Facility

(Place a check in the appropriate box)

- Private
 Public

Total number of children enrolled in Kindergarten

NOTE: Information for the following should be obtained from the Commonwealth of Kentucky Immunization Certificate for each enrolled child.

2. Immunization Certificates and Exemptions

- a. How many children have a current/provisional or expired immunization certificate on file?
b. How many children are exempt from all or some immunizations for medical reasons?
c. How many children are exempt from all immunizations for religious reasons?
d. How many children DO NOT have any immunization certificate on file?

STOP: The total of 2a + 2b + 2c + 2d MUST = the total number of children enrolled in Kindergarten

3. Vaccine Dose Summary

Vaccine	# Doses	# Children
DTaP/DTP/DT	4 or more	
Polio	3 or more	
Hepatitis B	3 or more	
MMR	2	
Varicella [or child has had chickenpox disease]	2	

Name of person completing this form: _____ Date: _____



COMMONWEALTH OF KENTUCKY
SCHOOL/FACILITY ANNUAL IMMUNIZATION SURVEY
Sixth Grade
(902 KAR 2:055)

Please complete this form in its entirety.

1. Demographic Information

County: _____
School/Facility Name: _____
Address: _____
City: _____
State: _____ Zipcode: _____

Type of Facility

(Place a check in the appropriate box)

- Private
 Public

Total number of children enrolled in Sixth Grade

Phone Number: _____

NOTE: Information for the following should be obtained from the Commonwealth of Kentucky Immunization Certificate for each enrolled child.

2. Immunization Certificates and Exemptions

- a. How many children have a current/provisional or expired immunization certificate on file?
b. How many children are exempt from all or some immunizations for medical reasons?
c. How many children are exempt from all immunizations for religious reasons?
d. How many children DO NOT have any immunization certificate on file?

STOP: The total of 2a + 2b + 2c + 2d MUST = the total number of children enrolled in Sixth Grade.

3. Vaccine Dose Summary

Vaccine	# Doses	# Children
Tdap	1	
Td Booster	1	
MCV (Meningococcal) (reported as MenACWY)	1	
Hepatitis B [3 doses] or Adolescent/Adult Hepatitis B [2 doses]	3 or 2	
MMR	2	
Varicella [or child has had chickenpox disease]	2	

Name of person completing this form: _____ Date: _____

APPENDIX B

KENTUCKY ANNUAL SCHOOL IMMUNIZATION SURVEY REPORT 2016 – 2017

County Profiles about Immunization Coverage in All Schools

County Profiles about Immunization Coverage in All Schools

Each age-specific report for Kindergarten (Appendix B-1) or Sixth Grade (Appendix B-2) provided aggregate totals of immunization certificate types (i.e., Current, Medical or Religious Exemptions, and Missing) and age appropriate immunizations for each county.

Each county report included county totals/coverage rates, with coverage rates (percentage) for each certificate type, and age-appropriate vaccinations. Children having the minimum number of doses for each immunization, as reported by each school, were considered compliant.

Several objectives for Immunizations are defined by Healthy People 2020 (HP 2020), <http://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases>. The attainment of age-appropriate target measures for these Objectives is used annually by the Kentucky Immunization Program to identify schools that have been successful with vaccination compliance for school age children in the survey year.

The age-appropriate HP 2020 target measures, assessed in schools, were:

Kindergarten, by selected vaccines and doses:

- 95% or greater for 4+ DTaP, 3+ Polio, 3+ HepB, 2 MMR, and 2 Varicella;

Sixth Grade, by selected vaccines and doses:


- 80% or greater for 1 Tdap and 1 MenACWY; and
- 90% or greater for 2 Varicella.

Two target Immunizations measures defined by the Kentucky Immunization Program (KIP) for adolescents, were adapted from definitions in Healthy People 2010 Objectives, (https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Datasets/DATA2010/Focusarea14/O1427a.pdf) and (https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Datasets/DATA2010/Focusarea14/O1427b.pdf).

The age-appropriate KIP target measures, assessed in schools, were:

Sixth Grade:

- 95% or greater for 3 HepB and 2 MMR.

If any of the age-appropriate HP 2020 or KIP target measures were not met for a county, the cell for the corresponding vaccine (COLUMN) for a given county (ROW) has been highlighted in red. 

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Kindergarten for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,593	45,596 93.8%	2,100 4.3%	209 0.4%	343 0.7%	45,571 93.8%	45,630 93.9%	45,349 93.3%	44,715 92.0%	44,328 91.2%
Adair	187	187 100.0%	0 0.0%	0 0.0%	0 0.0%	187 100.0%	187 100.0%	187 100.0%	187 100.0%	186 99.5%
Allen	235	235 100.0%	0 0.0%	0 0.0%	0 0.0%	230 97.9%	232 98.7%	228 97.0%	233 99.1%	228 97.0%
Anderson	87	83 95.4%	0 0.0%	1 1.1%	3 3.4%	84 96.6%	84 96.6%	84 96.6%	84 96.6%	84 96.6%
Ballard	91	90 98.9%	0 0.0%	0 0.0%	1 1.1%	90 98.9%	90 98.9%	90 98.9%	90 98.9%	90 98.9%
Barren	623	534 85.7%	79 12.7%	3 0.5%	8 1.3%	605 97.1%	601 96.5%	544 87.3%	602 96.6%	600 96.3%
Bath	312	282 90.4%	1 0.3%	0 0.0%	29 9.3%	282 90.4%	281 90.1%	281 90.1%	275 88.1%	269 86.2%
Bell	284	253 89.1%	1 0.4%	0 0.0%	30 10.6%	256 90.1%	255 89.8%	254 89.4%	252 88.7%	249 87.7%
Boone	1,603	1564 97.6%	8 0.5%	26 1.6%	6 0.4%	1554 96.9%	1558 97.2%	1559 97.3%	1555 97.0%	1545 96.4%
Bourbon	83	82 98.8%	0 0.0%	0 0.0%	1 1.2%	79 95.2%	80 96.4%	79 95.2%	78 94.0%	78 94.0%
Boyd	534	521 97.6%	2 0.4%	3 0.6%	8 1.5%	492 92.1%	490 91.8%	501 93.8%	489 91.6%	486 91.0%
Boyle	363	336 92.6%	1 0.3%	0 0.0%	27 7.4%	329 90.6%	332 91.5%	329 90.6%	260 71.6%	255 70.2%
Bracken	104	103 99.0%	0 0.0%	0 0.0%	1 1.0%	101 97.1%	102 98.1%	101 97.1%	99 95.2%	101 97.1%
Breathitt	30	27 90.0%	0 0.0%	0 0.0%	3 10.0%	27 90.0%	27 90.0%	27 90.0%	25 83.3%	25 83.3%
Breckinridge	184	180 97.8%	0 0.0%	2 1.1%	2 1.1%	180 97.8%	179 97.3%	180 97.8%	178 96.7%	178 96.7%
Bullitt	742	707 95.3%	0 0.0%	6 0.8%	29 3.9%	693 93.4%	700 94.3%	700 94.3%	689 92.9%	686 92.5%
Butler										
Caldwell	139	138 99.3%	0 0.0%	1 0.7%	0 0.0%	134 96.4%	135 97.1%	136 97.8%	133 95.7%	132 95.0%
Calloway	354	343 96.9%	1 0.3%	10 2.8%	0 0.0%	342 96.6%	342 96.6%	342 96.6%	342 96.6%	340 96.0%
Campbell	1,043	976 93.6%	2 0.2%	6 0.6%	15 1.4%	1018 97.6%	1014 97.2%	974 93.4%	1014 97.2%	1004 96.3%
Carlisle	51	47 92.2%	0 0.0%	4 7.8%	0 0.0%	46 90.2%	46 90.2%	46 90.2%	46 90.2%	46 90.2%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Kindergarten for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,593	45,596 93.8%	2,100 4.3%	209 0.4%	343 0.7%	45,571 93.8%	45,630 93.9%	45,349 93.3%	44,715 92.0%	44,328 91.2%
Carroll	157	134 85.4%	0 0.0%	0 0.0%	23 14.6%	116 73.9%	119 75.8%	131 83.4%	133 84.7%	111 70.7%
Carter	286	262 91.6%	1 0.3%	1 0.3%	40 14.0%	270 94.4%	269 94.1%	267 93.4%	264 92.3%	259 90.6%
Casey	172	160 93.0%	0 0.0%	0 0.0%	12 7.0%	166 96.5%	163 94.8%	165 95.9%	166 96.5%	163 94.8%
Christian	710	646 91.0%	1 0.1%	4 0.6%	59 8.3%	636 89.6%	638 89.9%	637 89.7%	621 87.5%	623 87.7%
Clark	33	30 90.9%	0 0.0%	0 0.0%	3 9.1%	29 87.9%	29 87.9%	28 84.8%	24 72.7%	25 75.8%
Clay	310	262 84.5%	0 0.0%	0 0.0%	6 1.9%	301 97.1%	303 97.7%	300 96.8%	299 96.5%	297 95.8%
Clinton	139	129 92.8%	0 0.0%	2 1.4%	8 5.8%	116 83.5%	123 88.5%	123 88.5%	124 89.2%	127 91.4%
Crittenden	93	79 84.9%	0 0.0%	0 0.0%	14 15.1%	75 80.6%	73 78.5%	64 68.8%	76 81.7%	71 76.3%
Cumberland										
Daviess	1,293	1161 89.8%	2 0.2%	4 0.3%	125 9.7%	1171 90.6%	1155 89.3%	1168 90.3%	910 70.4%	847 65.5%
Edmonson	55	55 100.0%	0 0.0%	0 0.0%	0 0.0%	55 100.0%	55 100.0%	55 100.0%	54 98.2%	54 98.2%
Elliott										
Estill	148	132 89.2%	0 0.0%	0 0.0%	16 10.8%	128 86.5%	129 87.2%	129 87.2%	124 83.8%	124 83.8%
Fayette	3,779	3683 97.5%	9 0.2%	37 1.0%	53 1.4%	3639 96.3%	3647 96.5%	3653 96.7%	3617 95.7%	3594 95.1%
Fleming	152	152 100.0%	0 0.0%	0 0.0%	0 0.0%	152 100.0%	152 100.0%	152 100.0%	152 100.0%	152 100.0%
Floyd	543	539 99.3%	1 0.2%	1 0.2%	2 0.4%	537 98.9%	534 98.3%	539 99.3%	533 98.2%	536 98.7%
Franklin	395	356 90.1%	0 0.0%	1 0.3%	25 6.3%	365 92.4%	373 94.4%	372 94.2%	367 92.9%	368 93.2%
Fulton	77	77 100.0%	0 0.0%	0 0.0%	0 0.0%	77 100.0%	76 98.7%	76 98.7%	76 98.7%	76 98.7%
Gallatin										
Garrard	213	173 81.2%	0 0.0%	0 0.0%	40 18.8%	163 76.5%	165 77.5%	163 76.5%	153 71.8%	110 51.6%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Kindergarten for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,593	45,596 93.8%	2,100 4.3%	209 0.4%	343 0.7%	45,571 93.8%	45,630 93.9%	45,349 93.3%	44,715 92.0%	44,328 91.2%
Grant	329	325 98.8%	0 0.0%	2 0.6%	2 0.6%	319 97.0%	322 97.9%	322 97.9%	315 95.7%	314 95.4%
Graves	614	607 98.9%	3 0.5%	3 0.5%	1 0.2%	610 99.3%	611 99.5%	611 99.5%	605 98.5%	605 98.5%
Grayson	267	266 99.6%	0 0.0%	0 0.0%	1 0.4%	267 100.0%	267 100.0%	267 100.0%	266 99.6%	264 98.9%
Green	138	130 94.2%	0 0.0%	0 0.0%	8 5.8%	127 92.0%	127 92.0%	129 93.5%	125 90.6%	125 90.6%
Greenup	462	290 62.8%	3 0.6%	1 0.2%	9 1.9%	445 96.3%	443 95.9%	449 97.2%	444 96.1%	434 93.9%
Hancock	122	119 97.5%	0 0.0%	0 0.0%	3 2.5%	118 96.7%	118 96.7%	117 95.9%	117 95.9%	116 95.1%
Hardin	844	762 90.3%	0 0.0%	5 0.6%	77 9.1%	751 89.0%	748 88.6%	649 76.9%	733 86.8%	723 85.7%
Harlan	351	300 85.5%	1 0.3%	0 0.0%	50 14.2%	284 80.9%	286 81.5%	287 81.8%	267 76.1%	265 75.5%
Harrison	164	157 95.7%	0 0.0%	0 0.0%	7 4.3%	155 94.5%	156 95.1%	153 93.3%	150 91.5%	149 90.9%
Hart	237	234 98.7%	0 0.0%	4 1.7%	1 0.4%	229 96.6%	229 96.6%	195 82.3%	229 96.6%	230 97.0%
Henderson	562	552 98.2%	0 0.0%	3 0.5%	8 1.4%	541 96.3%	534 95.0%	541 96.3%	527 93.8%	544 96.8%
Henry	207	201 97.1%	0 0.0%	3 1.4%	3 1.4%	197 95.2%	198 95.7%	199 96.1%	198 95.7%	199 96.1%
Hickman	54	54 100.0%	0 0.0%	0 0.0%	0 0.0%	54 100.0%	54 100.0%	54 100.0%	54 100.0%	54 100.0%
Hopkins	521	504 96.7%	0 0.0%	12 2.3%	5 1.0%	500 96.0%	503 96.5%	502 96.4%	498 95.6%	496 95.2%
Jackson	243	177 72.8%	0 0.0%	0 0.0%	1 0.4%	243 100.0%	244 100.4%	243 100.0%	243 100.0%	243 100.0%
Jefferson	9,138	8347 91.3%	17 0.2%	57 0.6%	697 7.6%	8327 91.1%	8383 91.7%	8349 91.4%	8238 90.2%	8144 89.1%
Jessamine										
Johnson	282	258 91.5%	2 0.7%	0 0.0%	23 8.2%	252 89.4%	253 89.7%	254 90.1%	247 87.6%	243 86.2%
Kenton	2,184	2127 97.4%	10 0.5%	22 1.0%	25 1.1%	2112 96.7%	2117 96.9%	2110 96.6%	2103 96.3%	2087 95.6%
Knott	204	177 86.8%	1 0.5%	0 0.0%	14 6.9%	187 91.7%	188 92.2%	188 92.2%	186 91.2%	185 90.7%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Kindergarten for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,593	45,596 93.8%	2,100 4.3%	209 0.4%	343 0.7%	45,571 93.8%	45,630 93.9%	45,349 93.3%	44,715 92.0%	44,328 91.2%
Knox	343	319 93.0%	0 0.0%	0 0.0%	24 7.0%	308 89.8%	305 88.9%	304 88.6%	295 86.0%	290 84.5%
LaRue	211	205 97.2%	1 0.5%	0 0.0%	5 2.4%	202 95.7%	204 96.7%	205 97.2%	205 97.2%	204 96.7%
Laurel	894	826 92.4%	1 0.1%	5 0.6%	63 7.0%	808 90.4%	798 89.3%	806 90.2%	797 89.1%	783 87.6%
Lawrence	207	184 88.9%	2 1.0%	0 0.0%	23 11.1%	164 79.2%	160 77.3%	177 85.5%	164 79.2%	164 79.2%
Lee										
Leslie	49	47 95.9%	0 0.0%	0 0.0%	2 4.1%	36 73.5%	47 95.9%	47 95.9%	44 89.8%	43 87.8%
Letcher	277	262 94.6%	2 0.7%	2 0.7%	11 4.0%	262 94.6%	263 94.9%	262 94.6%	258 93.1%	258 93.1%
Lewis	164	158 96.3%	0 0.0%	1 0.6%	5 3.0%	153 93.3%	152 92.7%	154 93.9%	151 92.1%	152 92.7%
Lincoln	275	242 88.0%	35 12.7%	2 0.7%	0 0.0%	263 95.6%	258 93.8%	261 94.9%	265 96.4%	262 95.3%
Livingston	81	67 82.7%	0 0.0%	1 1.2%	13 16.0%	66 81.5%	67 82.7%	67 82.7%	64 79.0%	64 79.0%
Logan	239	228 95.4%	0 0.0%	1 0.4%	14 5.9%	222 92.9%	216 90.4%	222 92.9%	202 84.5%	194 81.2%
Lyon	67	60 89.6%	0 0.0%	3 4.5%	4 6.0%	57 85.1%	61 91.0%	55 82.1%	60 89.6%	60 89.6%
Madison	957	915 95.6%	7 0.7%	10 1.0%	25 2.6%	909 95.0%	916 95.7%	914 95.5%	897 93.7%	895 93.5%
Magoffin	159	141 88.7%	0 0.0%	0 0.0%	18 11.3%	143 89.9%	143 89.9%	137 86.2%	139 87.4%	137 86.2%
Marion	381	378 99.2%	0 0.0%	0 0.0%	3 0.8%	378 99.2%	376 98.7%	377 99.0%	362 95.0%	372 97.6%
Marshall	366	348 95.1%	0 0.0%	6 1.6%	12 3.3%	342 93.4%	338 92.3%	339 92.6%	325 88.8%	318 86.9%
Martin	88	52 59.1%	0 0.0%	0 0.0%	0 0.0%	87 98.9%	86 97.7%	87 98.9%	85 96.6%	86 97.7%
Mason	186	164 88.2%	0 0.0%	0 0.0%	22 11.8%	163 87.6%	162 87.1%	150 80.6%	152 81.7%	153 82.3%
McCracken	593	567 95.6%	4 0.7%	12 2.0%	10 1.7%	564 95.1%	567 95.6%	563 94.9%	555 93.6%	550 92.7%
McCreary	255	244 95.7%	0 0.0%	1 0.4%	10 3.9%	237 92.9%	241 94.5%	239 93.7%	215 84.3%	215 84.3%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Kindergarten for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,593	45,596 93.8%	2,100 4.3%	209 0.4%	343 0.7%	45,571 93.8%	45,630 93.9%	45,349 93.3%	44,715 92.0%	44,328 91.2%
McLean	129	125 96.9%	0 0.0%	1 0.8%	2 1.6%	124 96.1%	125 96.9%	124 96.1%	125 96.9%	120 93.0%
Meade	336	334 99.4%	0 0.0%	2 0.6%	0 0.0%	332 98.8%	333 99.1%	333 99.1%	332 98.8%	334 99.4%
Menifee	86	80 93.0%	0 0.0%	0 0.0%	7 8.1%	80 93.0%	80 93.0%	80 93.0%	79 91.9%	79 91.9%
Mercer	242	241 99.6%	0 0.0%	0 0.0%	1 0.4%	239 98.8%	229 94.6%	228 94.2%	241 99.6%	239 98.8%
Metcalfe										
Monroe	127	122 96.1%	1 0.8%	0 0.0%	4 3.1%	122 96.1%	123 96.9%	122 96.1%	120 94.5%	119 93.7%
Montgomery	371	344 92.7%	0 0.0%	4 1.1%	23 6.2%	343 92.5%	345 93.0%	339 91.4%	334 90.0%	333 89.8%
Morgan	151	151 100.0%	0 0.0%	0 0.0%	0 0.0%	150 99.3%	150 99.3%	149 98.7%	149 98.7%	148 98.0%
Muhlenberg	314	298 94.9%	0 0.0%	5 1.6%	14 4.5%	290 92.4%	292 93.0%	295 93.9%	292 93.0%	292 93.0%
Nelson	590	552 93.6%	3 0.5%	6 1.0%	29 4.9%	557 94.4%	541 91.7%	539 91.4%	521 88.3%	517 87.6%
Nicholas										
Ohio	110	104 94.5%	0 0.0%	1 0.9%	5 4.5%	102 92.7%	103 93.6%	102 92.7%	98 89.1%	90 81.8%
Oldham	822	800 97.3%	0 0.0%	13 1.6%	0 0.0%	796 96.8%	799 97.2%	793 96.5%	793 96.5%	791 96.2%
Owen	111	109 98.20%	0 0.00%	1 0.90%	1 0.90%	108 97.30%	106 95.50%	108 97.30%	108 97.30%	106 95.50%
Owsley										
Pendleton										
Perry	301	275 91.4%	1 0.3%	1 0.3%	24 8.0%	246 81.7%	274 91.0%	269 89.4%	260 86.4%	264 87.7%
Pike	659	640 97.1%	0 0.0%	1 0.2%	18 2.7%	650 98.6%	656 99.5%	654 99.2%	607 92.1%	654 99.2%
Powell	104	93 89.4%	0 0.0%	0 0.0%	11 10.6%	93 89.4%	93 89.4%	92 88.5%	93 89.4%	93 89.4%
Pulaski	858	848 98.8%	1 0.1%	5 0.6%	4 0.5%	843 98.3%	842 98.1%	845 98.5%	839 97.8%	835 97.3%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Kindergarten for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	4+ DTaP	3+ Polio	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,593	45,596 93.8%	2,100 4.3%	209 0.4%	343 0.7%	45,571 93.8%	45,630 93.9%	45,349 93.3%	44,715 92.0%	44,328 91.2%
Robertson	34	33 97.1%	0 0.0%	1 2.9%	0 0.0%	32 94.1%	33 97.1%	33 97.1%	33 97.1%	33 97.1%
Rockcastle	194	193 99.5%	0 0.0%	1 0.5%	0 0.0%	191 98.5%	187 96.4%	189 97.4%	192 99.0%	192 99.0%
Rowan	273	256 93.8%	1 0.4%	5 1.8%	11 4.0%	257 94.1%	257 94.1%	257 94.1%	254 93.0%	255 93.4%
Russell	279	279 100.0%	0 0.0%	0 0.0%	2 0.7%	274 98.2%	275 98.6%	271 97.1%	270 96.8%	270 96.8%
Scott	439	419 95.4%	0 0.0%	4 0.9%	16 3.6%	409 93.2%	408 92.9%	404 92.0%	395 90.0%	394 89.7%
Shelby	502	496 98.8%	0 0.0%	6 1.2%	0 0.0%	485 96.6%	485 96.6%	488 97.2%	479 95.4%	476 94.8%
Simpson	216	213 98.6%	0 0.0%	3 1.4%	0 0.0%	210 97.2%	212 99.5%	211 97.7%	210 98.6%	210 97.2%
Spencer	210	209 99.5%	0 0.0%	3 1.4%	0 0.0%	208 99.0%	208 99.0%	206 98.1%	207 98.6%	207 98.6%
Taylor	157	157 100.0%	0 0.0%	0 0.0%	0 0.0%	156 99.4%	156 99.4%	155 98.7%	157 100.0%	156 99.4%
Todd	145	141 97.2%	0 0.0%	1 0.7%	3 2.1%	141 97.2%	142 97.9%	141 97.2%	138 95.2%	137 94.5%
Trigg	136	134 98.5%	0 0.0%	0 0.0%	2 1.5%	131 96.3%	134 98.5%	133 97.8%	125 91.9%	124 91.2%
Trimble										
Union	171	166 97.1%	0 0.0%	3 1.8%	2 1.2%	163 95.3%	141 82.5%	142 83.0%	159 93.0%	159 93.0%
Warren	962	893 92.8%	1 0.1%	4 0.4%	71 7.4%	860 89.4%	851 88.5%	830 86.3%	845 87.8%	808 84.0%
Washington	145	140 96.6%	0 0.0%	0 0.0%	5 3.4%	138 95.2%	140 96.6%	140 96.6%	134 92.4%	133 91.7%
Wayne	191	190 99.5%	1 0.5%	0 0.0%	0 0.0%	190 99.5%	191 100.0%	190 99.5%	191 100.0%	189 99.0%
Webster	181	154 85.1%	0 0.0%	0 0.0%	27 14.9%	152 84.0%	144 79.6%	151 83.4%	150 82.9%	149 82.3%
Whitley	341	315 92.4%	1 0.3%	1 0.3%	24 7.0%	315 92.4%	316 92.7%	310 90.9%	309 90.6%	312 91.5%
Wolfe	98	95 96.9%	0 0.0%	1 1.0%	5 5.1%	91 92.9%	93 94.9%	92 93.9%	88 89.8%	88 89.8%
Woodford	289	285 98.6%	1 0.3%	2 0.7%	1 0.3%	286 99.0%	287 99.3%	285 98.6%	284 98.3%	283 97.9%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Sixth Grade for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	1 Tdap	1 MenACWY	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,146	46,992 97.6%	190 0.4%	278 0.5%	696 1.4%	40,679 84.5%	39,385 81.8%	45,901 95.3%	46,587 96.8%	43,431 90.2%
Adair	196	194 98.9%	0 0.0%	0 0.0%	2 1.0%	191 97.4%	192 98.0%	166 84.7%	196 100.0%	191 97.4%
Allen	229	225 98.3%	0 0.0%	3 1.3%	1 0.4%	191 83.4%	190 83.0%	222 96.9%	222 96.9%	221 96.5%
Anderson	291	286 98.3%	2 0.7%	3 1.0%	0 0.0%	287 98.6%	246 84.5%	286 98.3%	286 98.3%	261 86.7%
Ballard	78	78 100.0%	0 0.0%	2 2.6%	0 0.0%	76 97.4%	76 97.4%	78 100.0%	78 100.0%	97 100.0%
Barren	573	569 99.3%	1 0.2%	3 0.5%	1 0.2%	531 92.7%	522 91.1%	558 97.4%	567 98.9%	505 94.9%
Bath	160	160 100.0%	0 0.0%	0 0.0%	0 0.0%	79 49.4%	81 50.6%	160 100.0%	153 95.6%	102 63.8%
Bell	284	262 92.3%	0 0.0%	0 0.0%	22 7.8%	90 31.7%	85 29.9%	242 85.2%	263 92.6%	160 56.3%
Boone	1,811	1,773 97.9%	8 0.4%	29 1.6%	4 0.2%	1,629 89.9%	1,619 89.4%	1,762 97.3%	1,759 97.1%	1,680 92.8%
Bourbon	257	254 98.8%	1 0.4%	1 0.4%	1 0.4%	226 87.9%	226 87.9%	253 98.4%	253 98.4%	230 89.5%
Boyd	513	501 97.7%	1 0.2%	1 1.9%	10 2.0%	328 63.9%	163 31.8%	286 55.8%	285 55.6%	215 41.9%
Boyle	383	374 97.7%	1 0.3%	1 0.3%	8 2.1%	327 85.4%	318 83.0%	372 97.1%	371 96.9%	333 87.0%
Bracken	114	112 98.2%	1 0.9%	1 0.9%	2 1.8%	95 83.3%	86 75.4%	114 100.0%	114 100.0%	96 84.2%
Breathitt	29	29 100.0%	0 0.0%	0 0.0%	0 0.0%	22 75.9%	22 75.9%	29 100.0%	29 100.0%	28 96.6%
Breckinridge	75	74 98.7%	0 0.0%	1 1.3%	0 0.0%	74 98.7%	71 94.7%	75 100.0%	74 98.7%	72 96.0%
Bullitt	808	800 99.0%	1 0.1%	3 0.4%	4 0.5%	678 83.9%	664 82.2%	741 91.7%	791 97.9%	740 91.6%
Butler	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Caldwell	143	142 99.3%	0 0.0%	1 7.0%	0 0.0%	137 95.8%	135 94.4%	143 100.0%	134 98.5%	134 98.5%
Calloway	350	343 98.0%	1 0.3%	6 1.7%	0 0.0%	339 96.9%	341 97.4%	342 97.7%	344 97.7%	339 96.9%
Campbell	922	912 98.9%	4 0.4%	6 0.1%	0 0.0%	890 96.5%	891 98.6%	917 99.5%	917 99.5%	888 96.3%
Carlisle	66	62 93.9%	0 0.0%	4 606.0%	0 0.0%	54 81.8%	51 77.3%	62 93.9%	63 95.5%	56 84.9%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Sixth Grade for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	1 Tdap	1 MenACWY	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,146	46,992 97.6%	190 0.4%	278 0.5%	696 1.4%	40,679 84.5%	39,385 81.8%	45,901 95.3%	46,587 96.8%	43,431 90.2%
Carroll	154	151 98.1%	0 0.0%	1 65.0%	2 1.3%	117 76.0%	118 76.6%	154 100.0%	151 98.1%	128 83.1%
Carter	376	369 98.1%	0 0.0%	2 53.0%	5 1.3%	359 95.5%	356 94.7%	373 99.2%	373 99.2%	354 94.2%
Casey	151	146 96.7%	0 0.0%	1 0.6%	4 2.7%	127 84.1%	127 84.1%	143 94.7%	148 98.0%	131 86.8%
Christian	735	724 98.5%	0 0.0%	0 0.0%	7 1.0%	599 81.5%	538 73.2%	713 97.0%	715 97.3%	670 91.2%
Clark	16	16 100.0%	0 0.0%	0 0.0%	0 0.0%	13 81.3%	12 75.0%	15 93.8%	15 93.8%	15 93.8%
Clay	242	240 99.2%	0 0.0%	0 0.0%	2 0.8%	228 94.2%	193 79.8%	240 99.2%	240 99.2%	234 96.7%
Clinton	113	112 99.1%	0 0.0%	1 0.9%	0 0.0%	100 88.5%	99 87.6%	113 100.0%	112 99.1%	99 87.6%
Crittenden	88	79 89.8%	0 0.0%	0 0.0%	9 10.2%	79 86.4%	76 86.4%	80 90.9%	83 94.3%	77 87.5%
Cumberland	0	0 0.0%	0 0.0%	1 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Daviess	1,029	1,001 97.3%	5 0.5%	6 0.6%	17 1.7%	923 89.7%	917 89.1%	1,010 98.2%	1,009 98.1%	915 88.9%
Edmonson	164	163 99.4%	0 0.0%	0 0.0%	1 0.6%	130 79.3%	130 79.3%	163 99.4%	160 97.6%	143 87.2%
Elliott	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Estill	164	161 0.0%	0 0.0%	0 0.0%	3 1.8%	161 98.2%	124 75.6%	156 95.1%	127 77.4%	145 88.4%
Fayette	3,536	3,460 97.9%	24 0.7%	32 0.9%	20 0.6%	2,621 74.1%	2,577 72.9%	3,472 98.2%	3,455 97.7%	3,211 90.8%
Fleming	156	155 99.4%	1 64.0%	0 0.0%	0 0.0%	154 98.7%	154 98.7%	156 100.0%	156 100.0%	150 96.2%
Floyd	322	319 99.1%	2 0.7%	1 0.3%	0 0.0%	315 97.8%	316 98.1%	321 99.7%	320 99.4%	309 96.0%
Franklin	517	427 85.3%	1 0.2%	0 0.0%	89 17.2%	363 70.2%	362 70.0%	426 82.4%	415 80.3%	368 71.2%
Fulton	56	56 100.0%	0 0.0%	0 0.0%	0 0.0%	56 100.0%	56 100.0%	56 100.0%	56 100.0%	56 100.0%
Gallatin	123	122 99.2%	1 0.8%	0 0.0%	0 0.0%	107 87.0%	101 82.1%	122 99.2%	122 99.2%	111 90.2%
Garrard	196	186 94.9%	0 0.0%	5 2.6%	5 2.6%	188 95.9%	142 72.5%	1 0.5%	189 96.4%	163 83.2%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Sixth Grade for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	1 Tdap	1 MenACWY	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,146	46,992 97.6%	190 0.4%	278 0.5%	696 1.4%	40,679 84.5%	39,385 81.8%	45,901 95.3%	46,587 96.8%	43,431 90.2%
Grant	379	377 99.5%	1 0.3%	1 0.3%	0 0.0%	337 88.9%	337 88.9%	379 100.0%	378 99.7%	353 93.1%
Graves	421	416 98.1%	1 0.2%	2 0.5%	5 1.2%	396 93.4%	394 92.9%	406 95.8%	405 95.5%	407 96.0%
Grayson	323	320 99.1%	0 0.0%	1 0.3%	2 0.6%	286 88.5%	285 88.2%	233 72.1%	233 72.1%	209 67.7%
Green	115	111 96.5%	2 1.7%	1 0.9%	1 0.9%	101 87.8%	101 87.8%	110 95.7%	111 96.5%	104 90.4%
Greenup	529	522 98.7%	1 0.2%	1 0.2%	6 1.1%	487 92.1%	437 82.6%	521 98.5%	522 98.7%	475 89.8%
Hancock	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Hardin	788	781 99.1%	2 0.3%	3 0.4%	2 0.3%	701 89.0%	699 88.7%	781 99.1%	766 97.2%	739 93.8%
Harlan	363	338 93.1%	0 0.0%	0 0.0%	25 6.9%	209 57.6%	195 53.7%	337 92.8%	331 91.2%	247 68.0%
Harrison	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Hart	178	176 98.9%	1 0.6%	1 0.6%	0 0.0%	171 96.1%	170 95.5%	137 77.0%	176 98.9%	169 94.9%
Henderson	580	572 98.6%	3 0.5%	1 0.2%	3 0.5%	541 93.3%	541 93.3%	562 96.9%	571 98.5%	541 93.3%
Henry	275	271 98.5%	2 0.7%	2 0.7%	0 0.0%	247 89.8%	247 89.8%	247 89.9%	272 98.9%	250 90.9%
Hickman	62	61 98.4%	1 1.6%	0 0.0%	0 0.0%	61 98.4%	61 98.4%	62 100.0%	61 98.4%	60 96.8%
Hopkins	562	552 98.2%	3 0.5%	5 0.9%	3 0.5%	537 95.6%	538 95.7%	553 98.4%	553 98.4%	549 97.7%
Jackson	164	159 96.0%	1 0.6%	2 1.2%	1 0.6%	141 86.0%	142 85.6%	149 90.9%	159 97.0%	147 89.6%
Jefferson	8,876	8,585 96.7%	23 0.3%	53 0.6%	165 1.9%	7,051 79.4%	6,927 78.0%	8,653 97.5%	8,630 97.2%	8,342 94.0%
Jessamine	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Johnson	319	314 98.4%	2 0.6%	0 0.0%	3 0.9%	268 84.0%	266 83.4%	313 98.1%	309 96.9%	289 90.6%
Kenton	2,138	2,101 98.3%	10 0.5%	19 0.9%	8 0.4%	1,948 91.1%	1,937 90.6%	2,114 98.9%	2,107 98.6%	2,029 94.9%
Knott	174	173 99.4%	0 0.0%	1 0.6%	0 0.0%	107 61.5%	100 57.5%	170 97.7%	168 96.6%	115 66.1%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Sixth Grade for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	1 Tdap	1 MenACWY	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,146	46,992 97.6%	190 0.4%	278 0.5%	696 1.4%	40,679 84.5%	39,385 81.8%	45,901 95.3%	46,587 96.8%	43,431 90.2%
Knox	370	361 97.6%	0 0.0%	0 0.0%	9 2.4%	237 64.1%	234 63.2%	358 96.8%	357 96.5%	253 68.1%
LaRue	191	190 99.4%	1 0.5%	0 0.0%	0 0.0%	190 99.5%	189 99.0%	191 100.0%	188 98.4%	186 97.4%
Laurel	749	736 99.6%	1 0.1%	2 0.3%	10 1.3%	718 95.9%	609 81.3%	738 98.5%	723 96.5%	622 83.0%
Lawrence	180	179 99.4%	0 0.0%	0 0.0%	1 0.6%	158 87.8%	158 87.8%	179 99.4%	179 99.4%	163 90.6%
Lee	88	80 90.9%	0 0.0%	1 1.1%	7 8.0%	52 59.1%	53 60.2%	75 85.2%	79 89.8%	68 77.3%
Leslie	49	49 100.0%	0 0.0%	0 0.0%	0 0.0%	33 67.4%	33 67.4%	49 100.0%	49 100.0%	33 67.4%
Letcher	342	335 98.0%	2 0.3%	1 0.3%	4 1.2%	297 86.8%	301 88.0%	334 97.7%	336 98.3%	316 92.4%
Lewis	155	155 100.0%	0 0.0%	0 0.0%	0 0.0%	138 89.0%	133 85.8%	155 100.0%	155 100.0%	139 89.7%
Lincoln	281	267 95.0%	12 4.3%	1 0.4%	1 0.4%	279 99.3%	266 94.7%	275 97.9%	279 99.3%	267 95.0%
Livingston	101	97 96.0%	0 0.0%	2 2.0%	2 2.0%	40 39.6%	40 39.6%	92 91.1%	94 93.1%	61 60.4%
Logan	289	287 99.3%	0 0.0%	1 0.4%	1 0.4%	253 87.5%	246 85.1%	285 98.6%	280 96.9%	267 92.4%
Lyon	73	73 100.0%	0 0.0%	0 0.0%	0 0.0%	71 97.3%	67 91.8%	69 94.5%	73 100.0%	67 91.8%
Madison	1025	1012 98.7%	4 0.4%	5 0.5%	5 0.5%	977 95.3%	968 94.4%	1018 99.3%	1014 98.9%	990 96.6%
Magoffin	160	153 95.6%	1 0.6%	0 0.0%	7 4.4%	107 66.9%	103 64.4%	140 87.5%	153 95.6%	122 76.3%
Marion	249	248 99.6%	0 0.0%	3 1.2%	1 0.4%	238 95.6%	237 95.2%	245 98.4%	245 98.4%	240 96.4%
Marshall	402	392 97.5%	1 0.3%	3 0.8%	6 1.5%	356 88.6%	355 88.3%	394 98.0%	391 97.3%	378 94.0%
Martin	258	255 98.8%	2 0.8%	0 0.0%	1 0.4%	252 97.7%	214 83.0%	256 99.2%	252 97.7%	234 90.7%
Mason	205	196 95.6%	1 0.5%	0 0.0%	9 0.4%	118 57.6%	115 56.1%	186 90.7%	190 92.7%	138 67.3%
McCracken	474	463 97.7%	0 0.0%	5 1.1%	6 1.3%	399 84.2%	399 84.2%	465 98.1%	463 97.7%	420 88.6%
McCreary	196	196 0.0%	0 0.0%	0 0.0%	0 0.0%	178 90.8%	176 89.8%	196 100.0%	196 100.0%	185 94.4%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Sixth Grade for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	1 Tdap	1 MenACWY	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,146	46,992 97.6%	190 0.4%	278 0.5%	696 1.4%	40,679 84.5%	39,385 81.8%	45,901 95.3%	46,587 96.8%	43,431 90.2%
McLean	111	110 99.1%	0 0.0%	0 0.0%	1 0.9%	107 96.4%	107 96.4%	109 98.2%	110 99.1%	109 98.2%
Meade	379	376 99.2%	1 0.3%	2 0.5%	0 0.0%	376 99.2%	373 98.4%	377 99.5%	377 99.5%	370 97.6%
Menifee	85	81 95.3%	0 0.0%	0 0.0%	4 4.7%	81 95.3%	81 95.3%	81 95.3%	81 95.3%	81 95.3%
Mercer	230	227 98.7%	0 0.0%	2 0.9%	1 0.4%	224 97.4%	224 97.4%	228 99.1%	227 98.7%	220 95.7%
Metcalfe	114	109 95.6%	0 0.0%	1 0.9%	4 3.5%	87 76.3%	83 72.8%	109 95.6%	109 95.6%	93 81.6%
Monroe	158	158 100.0%	0 0.0%	0 0.0%	0 0.0%	152 96.2%	151 95.6%	158 100.0%	158 100.0%	155 98.1%
Montgomery	351	341 97.2%	8 2.3%	2 0.6%	10 2.9%	249 70.9%	249 70.9%	346 98.6%	341 97.2%	294 83.8%
Morgan	165	163 98.8%	0 0.0%	0 0.0%	2 1.2%	148 89.7%	148 89.7%	163 98.8%	163 98.8%	150 90.9%
Muhlenberg	363	359 98.9%	0 0.0%	4 1.1%	0 0.0%	281 77.4%	282 77.7%	313 86.2%	350 96.4%	325 89.5%
Nelson	784	765 97.9%	1 0.1%	1 0.1%	14 1.8%	618 78.8%	582 74.2%	730 93.1%	768 98.0%	722 92.1%
Nicholas	0	0 100.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Ohio	117	117 100.0%	0 0.0%	0 0.0%	0 0.0%	77 65.8%	76 65.0%	117 100.0%	115 98.3%	90 76.9%
Oldham	682	663 97.2%	7 1.0%	12 1.8%	0 0.0%	671 98.4%	560 82.1%	669 98.1%	666 97.7%	659 96.9%
Owen	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Owsley	62	60 98.0%	1 1.6%	0 0.0%	1 1.6%	36 58.1%	39 62.9%	52 83.9%	52 83.9%	40 64.5%
Pendleton	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Perry	286	270 94.4%	0 0.0%	0 0.0%	16 5.6%	249 87.1%	245 85.7%	256 89.5%	267 93.4%	251 87.8%
Pike	636	631 99.2%	3 0.5%	0 0.0%	2 0.3%	616 96.9%	613 96.4%	616 96.9%	617 97.0%	624 98.1%
Powell	184	184 100.0%	0 0.0%	0 0.0%	0 0.0%	183 99.5%	180 97.8%	183 99.5%	181 98.7%	182 98.9%
Pulaski	852	844 99.1%	3 0.4%	2 0.2%	3 0.4%	813 95.4%	813 95.4%	846 99.3%	845 99.2%	808 94.8%

Kentucky Annual School Immunization Survey Report, 2016 – 2017 — County Profiles
Immunization Coverage in Sixth Grade for All Schools

County	Total # of Students	Current Cert.	Medical Exempt	Religious Exempt	Missing Cert.	1 Tdap	1 MenACWY	3+ HepB	2 MMR	2 Varicella
Kentucky (Total)	48,146	46,992 97.6%	190 0.4%	278 0.5%	696 1.4%	40,679 84.5%	39,385 81.8%	45,901 95.3%	46,587 96.8%	43,431 90.2%
Robertson	27	26 96.3%	0 0.0%	1 3.7%	0 0.0%	26 96.3%	26 96.3%	23 96.3%	23 96.3%	23 96.3%
Rockcastle	202	202 100.0%	0 0.0%	0 0.0%	0 0.0%	184 91.1%	184 91.1%	202 100.0%	202 100.0%	187 92.6%
Rowan	252	244 96.8%	0 0.0%	1 0.4%	7 2.8%	169 97.1%	171 67.9%	248 98.4%	248 98.4%	213 84.5%
Russell	217	213 98.2%	2 0.9%	2 0.92	0 0.0%	195 89.9%	192 88.5%	214 98.6%	214 98.6%	194 89.4%
Scott	485	475 97.9%	0 0.0%	2 0.4%	8 1.7%	369 76.1%	215 44.3%	404 83.3%	472 97.3%	426 87.8%
Shelby	508	506 99.6%	0 0.0%	2 0.4%	0 0.0%	448 88.2%	448 88.2%	500 98.4%	498 98.0%	476 93.7%
Simpson	209	209 100.0%	0 0.0%	0 0.0%	0 0.0%	185 88.5%	183 87.6%	209 100.0%	207 99.0%	205 98.1%
Spencer	232	231 99.6%	0 0.0%	1 0.4%	0 0.0%	230 99.1%	231 99.6%	232 100.0%	230 99.1%	228 98.3%
Taylor	196	195 99.5%	3 1.5%	0 0.0%	1 0.5%	194 99.0%	194 99.0%	195 99.5%	196 100.0%	190 96.9%
Todd	158	156 98.7%	0 0.0%	1 0.6%	1 0.6%	87 55.1%	85 53.8%	156 98.7%	153 96.8%	115 72.8%
Trigg	166	163 98.2%	1 60.0%	2 1.2%	0 0.0%	143 86.1%	140 84.3%	163 98.2%	163 98.2%	144 86.8%
Trimble	0	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%	0 0.0%
Union	28	28 100.0%	0 0.0%	0 0.0%	0 0.0%	28 100.0%	26 92.9%	28 100.0%	26 92.9%	20 71.4%
Warren	1,143	1,057 92.5%	26 2.3%	3 0.3%	60 5.3%	737 64.5%	727 63.6%	822 71.9%	1,095 95.8%	879 76.9%
Washington	126	125 99.2%	0 0.0%	0 0.0%	1 0.8%	107 84.9%	105 83.3%	125 99.2%	124 98.4%	117 92.9%
Wayne	223	222 99.6%	1 0.5%	0 0.0%	0 0.0%	221 99.1%	222 99.6%	223 100.0%	223 100.0%	221 99.1%
Webster	166	155 93.4%	0 0.0%	0 0.0%	11 6.6%	125 75.3%	125 75.3%	121 72.9%	157 94.6%	136 81.9%
Whitley	336	335 99.7%	0 0.0%	0 0.0%	33 9.8%	305 90.8%	302 89.9%	335 99.7%	335 99.7%	323 96.1%
Wolfe	100	97 97.0%	0 0.0%	0 0.0%	3 3.0%	90 90.0%	53 53.0%	92 92.0%	95 95.0%	68 68.0%
Woodford	310	305 98.4%	0 0.0%	5 1.6%	0 0.0%	304 98.1%	300 96.8%	307 99.0%	306 98.7%	292 94.2%

APPENDIX C

KENTUCKY ANNUAL SCHOOL IMMUNIZATION SURVEY REPORT 2016 – 2017



**Changes in Percent of Coverage Rates by Vaccine and
Changes in Rank Order of Counties by Vaccine,
Comparing Results of the 2015-2016 to the 2016-2017
Annual School Immunization Surveys, by County
for Kindergarten or Sixth Grade**

**KINDERGARTEN - Sorted by County Name in Alphabetical Order (C-1)
SIXTH GRADE - Sorted by County Name in Alphabetical Order (C-2)**



Two-Year Comparison of Changes in Percent of Coverage Rates, by County

Each of the age-specific reports for Kindergarten (Appendix C-1) or Sixth Grade (Appendix C-2) provides the change in percent of coverage rates for all five age-appropriate vaccinations surveyed, and the change in rank order of county rankings for all five age-appropriate vaccinations surveyed when comparing the results of the 2015-2016 to the 2016-2017 Annual School Immunization Surveys.

The change in county coverage rates (i.e., change in percentage) for each age-appropriate vaccine compared with the previous year's results were calculated for each county. Counties were classified into two groups:

- Counties with a positive change in percent were highlighted in yellow. 
- Counties with a negative change in percent were highlighted in blue. 

The change in rank order of a county from the previous year's results was assessed using the difference in the rank order from 2015-2016 to 2016-2017 for all five age-appropriate vaccinations surveyed. Counties were classified into two groups:

- Counties with a positive change in rank order were highlighted in yellow. 
- Counties with a negative change in rank order were highlighted in blue. 

Several objectives for Immunizations were defined by Healthy People 2020 (HP 2020), <http://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases>.

The attainment of age-appropriate target measures for these Objectives is used annually by the Kentucky Immunization Program to identify schools that have been successful with vaccination compliance for school age children in the survey year.

The age-appropriate HP 2020 target measures, assessed in schools, were:

Kindergarten, by selected vaccines and doses:

- 95% or greater for 4+ DTaP, 3+ Polio, 3+ HepB, 2 MMR, and 2 Varicella;

Sixth Grade, by selected vaccines and doses:


- 80% or greater for 1 Tdap and 1 MenACWY, and
- 90% or greater for 2 Varicella

Two target Immunizations measures defined by the Kentucky Immunization Program (KIP) for adolescents, were adapted from definitions in Healthy People 2010 Objectives, (https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Datasets/DATA2010/Focusarea14/O1427a.pdf) and (https://ftp.cdc.gov/pub/Health_Statistics/NCHS/Datasets/DATA2010/Focusarea14/O1427b.pdf).

The age-appropriate KIP target measures, assessed in schools, were:

Sixth Grade, by selected vaccines and doses:

- 95% or greater for 3 HepB and 2 MMR.

If any of the age-appropriate HP 2020 or KIP target measures were not met for a county or school, the background of the cell for the corresponding vaccine (COLUMN) for a given county or school (ROW) has been highlighted in red. 

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	4+ DTaP					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.8%	N/A	-0.2%	N/A
Adair	98.5%	19	100.0%	1	1.5%	18
Allen	98.7%	16	97.9%	24	-0.8%	-8
Anderson	97.5%	39	96.6%	38	-0.9%	1
Ballard	100.0%	1	98.9%	15	-1.1%	-14
Barren	96.7%	46	97.1%	30	0.4%	16
Bath	88.4%	104	90.4%	84	2.2%	20
Bell	89.0%	102	90.1%	87	1.2%	15
Boone	97.7%	35	96.9%	34	-0.8%	1
Bourbon	96.4%	49	95.2%	54	-1.2%	-5
Boyd	95.0%	67	92.1%	78	-3.1%	-11
Boyle	93.6%	83	90.6%	82	-3.2%	1
Bracken	98.2%	22	97.1%	30	-1.2%	-8
Breathitt	87.8%	107	90.0%	88	2.5%	19
Breckinridge	97.4%	42	97.8%	25	0.4%	17
Bullitt	90.1%	97	93.4%	65	3.7%	32
Butler	93.8%	82	0.0%	110	-100.0%	-28
Caldwell	91.0%	94	96.4%	43	5.9%	51
Calloway	97.5%	38	96.6%	38	-0.9%	0
Campbell	95.4%	64	97.6%	26	2.3%	38
Carlisle	94.9%	68	90.2%	86	-4.9%	-18

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	4+ DTaP					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.8%	N/A	-0.2%	N/A
Carroll	77.8%	119	73.9%	108	-5.0%	11
Carter	95.5%	62	94.4%	61	-1.1%	1
Casey	86.8%	111	96.5%	42	11.2%	69
Christian	88.4%	105	89.6%	91	1.4%	14
Clark	94.8%	69	87.9%	96	-7.3%	-27
Clay	93.3%	84	97.1%	30	4.1%	54
Clinton	97.7%	36	83.5%	101	-14.6%	-65
Crittenden	86.9%	110	80.6%	105	-7.3%	5
Cumberland	95.8%	58	0.0%	110	-100.0%	-52
Daviess	93.3%	86	90.6%	82	-2.8%	4
Edmonson	94.2%	78	100.0%	1	6.1%	77
Elliott	96.2%	52	0.0%	110	-100.0%	-58
Estill	89.8%	98	86.5%	98	-3.7%	0
Fayette	96.4%	48	96.3%	44	-0.1%	4
Fleming	98.2%	22	100.0%	1	1.8%	21
Floyd	97.4%	41	98.9%	15	1.5%	26
Franklin	92.2%	91	92.4%	75	0.2%	16
Fulton	100.0%	1	100.0%	1	0.0%	0
Gallatin	96.6%	47	0.0%	110	-100.0%	-63
Garrard	77.5%	120	76.5%	107	-1.3%	13

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	4+ DTaP					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.8%	N/A	-0.2%	N/A
Grant	95.6%	61	97.0%	33	1.5%	28
Graves	97.0%	45	99.3%	10	2.3%	35
Grayson	99.0%	11	100.0%	1	1.0%	10
Green	94.6%	71	92.0%	79	-2.8%	-8
Greenup	95.2%	66	96.3%	44	1.1%	22
Hancock	93.2%	87	96.7%	36	3.7%	51
Hardin	88.0%	106	89.0%	95	1.2%	11
Harlan	84.2%	115	80.9%	104	-3.9%	11
Harrison	91.2%	93	94.5%	60	3.7%	33
Hart	98.8%	15	96.6%	38	-2.2%	-23
Henderson	98.0%	29	96.3%	44	-1.7%	-15
Henry	95.8%	59	95.2%	54	-0.6%	5
Hickman	100.0%	1	100.0%	1	0.0%	0
Hopkins	97.9%	32	96.0%	50	-1.9%	-18
Jackson	100.0%	1	100.0%	1	0.0%	0
Jefferson	92.5%	90	91.1%	81	-1.5%	9
Jessamine	96.2%	52	0.0%	110	-100.0%	-58
Johnson	90.3%	96	89.4%	92	-1.0%	4
Kenton	95.3%	65	96.7%	36	1.4%	29
Knott	97.9%	31	91.7%	80	-6.3%	-49

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	4+ DTaP					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.8%	N/A	-0.2%	N/A
Knox	83.5%	117	89.8%	90	7.5%	27
LaRue	100.0%	1	95.7%	51	-4.3%	-50
Laurel	88.9%	103	90.4%	84	1.6%	19
Lawrence	83.2%	118	79.2%	106	-4.8%	12
Lee	87.4%	109	0.0%	110	-100.0%	-1
Leslie	98.4%	20	73.5%	109	-25.3%	-89
Letcher	94.4%	76	94.6%	59	0.2%	17
Lewis	95.9%	55	93.3%	67	-2.7%	-12
Lincoln	95.7%	60	95.6%	52	-0.1%	8
Livingston	90.7%	95	81.5%	103	-10.2%	-8
Logan	89.2%	101	92.9%	70	4.2%	31
Lyon	95.9%	57	85.1%	99	-11.3%	-42
Madison	95.9%	56	95.0%	58	-0.9%	-2
Magoffin	87.5%	108	89.9%	89	2.7%	19
Marion	97.8%	33	99.2%	12	1.4%	21
Marshall	94.0%	80	93.4%	65	-0.6%	15
Martin	97.3%	43	98.9%	15	1.6%	28
Mason	86.7%	112	87.6%	97	1.0%	15
McCracken	92.7%	88	95.1%	57	2.6%	31
McCreary	98.2%	24	92.9%	70	-5.4%	-46

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	4+ DTaP					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.8%	N/A	-0.2%	N/A
McLean	94.2%	79	96.1%	48	2.1%	31
Meade	98.1%	26	98.8%	18	0.7%	8
Menifee	98.8%	14	93.0%	69	-5.9%	-55
Mercer	98.7%	17	98.8%	18	0.1%	-1
Metcalfe	99.1%	10	0.0%	110	-100.0%	-100
Monroe	94.6%	72	96.1%	48	1.6%	24
Montgomery	85.6%	114	92.5%	74	8.1%	40
Morgan	100.0%	1	99.3%	10	-0.7%	-9
Muhlenberg	95.5%	62	92.4%	75	-3.2%	-13
Nelson	91.9%	92	94.4%	61	2.8%	31
Nicholas	100.0%	1	0.0%	110	-100.0%	-109
Ohio	83.8%	116	92.7%	73	10.7%	43
Oldham	97.5%	40	96.8%	35	-0.7%	5
Owen	96.2%	50	97.3%	27	1.2%	23
Owsley	94.5%	73	0.0%	110	-100.0%	-37
Pendleton	97.7%	37	0.0%	110	-100.0%	-73
Perry	94.4%	75	81.7%	102	-13.5%	-27
Pike	98.0%	28	98.6%	20	0.6%	8
Powell	86.5%	113	89.4%	92	3.4%	21
Pulaski	89.3%	99	98.3%	22	10.0%	77

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	4+ DTaP					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.8%	N/A	-0.2%	N/A
Robertson	100.0%	1	94.1%	63	-5.9%	-62
Rockcastle	97.8%	34	98.5%	21	0.7%	13
Rowan	93.3%	85	94.1%	63	0.9%	22
Russell	98.2%	25	98.2%	23	0.0%	2
Scott	94.3%	77	93.2%	68	-1.2%	9
Shelby	96.2%	51	96.6%	38	0.5%	13
Simpson	99.5%	9	97.2%	28	-2.3%	-19
Spencer	98.9%	12	99.0%	13	0.1%	-1
Taylor	98.1%	27	99.4%	9	1.3%	18
Todd	94.5%	74	97.2%	28	2.8%	46
Trigg	97.9%	30	96.3%	44	-1.7%	-14
Trimble	92.6%	89	0.0%	110	-100.0%	-21
Union	97.1%	44	95.3%	53	-1.8%	-9
Warren	96.0%	54	89.4%	92	-6.9%	-38
Washington	94.7%	70	95.2%	54	0.6%	16
Wayne	98.7%	18	99.5%	8	0.8%	10
Webster	89.2%	100	84.0%	100	-5.8%	0
Whitley	93.9%	81	92.4%	75	-1.6%	6
Wolfe	98.9%	13	92.9%	70	-6.1%	-57
Woodford	98.3%	21	99.0%	13	0.7%	8

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.3%	N/A	-0.7%	N/A
Adair	99.0%	14	100.0%	1	1.0%	13
Allen	97.9%	37	97.0%	36	-0.9%	1
Anderson	98.8%	18	96.6%	41	-2.2%	-23
Ballard	100.0%	1	98.9%	13	-1.1%	-12
Barren	95.9%	57	87.3%	93	-9.0%	-36
Bath	87.8%	104	90.1%	85	2.6%	19
Bell	87.6%	106	89.4%	88	2.1%	18
Boone	97.6%	42	97.3%	28	-0.3%	14
Bourbon	96.0%	56	95.2%	53	-0.9%	3
Boyd	94.7%	69	93.8%	64	-0.9%	5
Boyle	93.0%	81	90.6%	80	-2.6%	1
Bracken	96.5%	51	97.1%	34	0.6%	17
Breathitt	89.4%	102	90.0%	86	0.7%	16
Breckinridge	97.7%	41	97.8%	22	0.1%	19
Bullitt	90.4%	97	94.3%	57	4.3%	40
Butler	92.4%	88	0.0%	110	-100.0%	-22
Caldwell	91.0%	92	97.8%	23	7.4%	69
Calloway	97.5%	43	96.6%	40	-0.9%	3
Campbell	95.4%	63	93.4%	67	-2.2%	-4
Carlisle	94.9%	67	90.2%	82	-4.9%	-15

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.3%	N/A	-0.7%	N/A
Carroll	83.6%	115	83.4%	99	-0.2%	16
Carter	95.7%	61	93.4%	68	-2.5%	-7
Casey	86.2%	111	95.9%	49	11.3%	62
Christian	87.7%	105	89.7%	87	2.3%	18
Clark	90.8%	94	84.8%	98	-6.6%	-4
Clay	92.6%	86	96.8%	37	4.5%	49
Clinton	97.0%	48	88.5%	91	-8.7%	-43
Crittenden	90.7%	95	68.8%	109	-24.1%	-14
Cumberland	95.8%	59	0.0%	110	-100.0%	-51
Daviess	93.9%	76	90.3%	81	-3.8%	-5
Edmonson	92.8%	82	100.0%	1	7.8%	81
Elliott	98.7%	19	0.0%	110	-100.0%	-91
Estill	89.2%	103	87.2%	94	-2.3%	9
Fayette	96.4%	53	96.7%	38	0.2%	15
Fleming	98.2%	28	100.0%	1	1.8%	27
Floyd	98.0%	32	99.3%	9	1.3%	23
Franklin	91.9%	90	94.2%	59	2.5%	31
Fulton	100.0%	1	98.7%	16	-1.3%	-15
Gallatin	96.6%	50	0.0%	110	-100.0%	-60
Garrard	83.0%	116	76.5%	108	-7.8%	8

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.3%	N/A	-0.7%	N/A
Grant	97.8%	39	97.9%	21	0.1%	18
Graves	97.9%	35	99.5%	7	1.7%	28
Grayson	99.3%	10	100.0%	1	0.7%	9
Green	94.6%	71	93.5%	66	-1.2%	5
Greenup	95.2%	65	97.2%	31	2.1%	34
Hancock	94.1%	75	95.9%	51	1.9%	24
Hardin	86.8%	109	76.9%	107	-11.4%	2
Harlan	82.5%	119	81.8%	105	-0.8%	14
Harrison	90.2%	98	93.3%	69	3.4%	29
Hart	98.8%	17	82.3%	103	-16.7%	-86
Henderson	97.4%	44	96.3%	45	-1.2%	-1
Henry	97.9%	36	96.1%	46	-1.8%	-10
Hickman	100.0%	1	100.0%	1	0.0%	0
Hopkins	98.0%	31	96.4%	44	-1.7%	-13
Jackson	99.5%	9	100.0%	1	0.5%	8
Jefferson	92.6%	87	91.4%	77	-1.3%	10
Jessamine	95.5%	62	0.0%	110	-100.0%	-48
Johnson	90.6%	96	90.1%	84	-0.6%	12
Kenton	95.8%	60	96.6%	39	0.9%	21
Knott	98.4%	24	92.2%	74	-6.4%	-50

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.3%	N/A	-0.7%	N/A
Knox	82.8%	117	88.6%	90	7.0%	27
LaRue	100.0%	1	97.2%	32	-2.8%	-31
Laurel	89.9%	99	90.2%	83	0.2%	16
Lawrence	82.7%	118	85.5%	97	3.4%	21
Lee	87.4%	108	0.0%	110	-100.0%	-2
Leslie	99.2%	12	95.9%	50	-3.3%	-38
Letcher	95.4%	64	94.6%	56	-0.9%	8
Lewis	98.6%	20	93.9%	62	-4.8%	-42
Lincoln	96.5%	52	94.9%	55	-1.6%	-3
Livingston	89.7%	101	82.7%	102	-7.8%	-1
Logan	92.8%	83	92.9%	71	0.1%	12
Lyon	86.3%	110	82.1%	104	-4.9%	6
Madison	96.4%	55	95.5%	52	-0.9%	3
Magoffin	87.5%	107	86.2%	96	-1.5%	11
Marion	97.8%	38	99.0%	12	1.2%	26
Marshall	93.3%	78	92.6%	73	-0.7%	5
Martin	97.3%	45	98.9%	14	1.6%	31
Mason	81.7%	120	80.6%	106	-1.2%	14
McCracken	92.2%	89	94.9%	54	3.0%	35
McCreary	98.2%	29	93.7%	65	-4.5%	-36

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.3%	N/A	-0.7%	N/A
McLean	95.0%	66	96.1%	47	1.2%	19
Meade	98.1%	30	99.1%	11	1.0%	19
Menifee	100.0%	1	93.0%	70	-7.0%	-69
Mercer	99.1%	13	94.2%	58	-5.0%	-45
Metcalfe	98.3%	27		110	-100.0%	-83
Monroe	94.6%	72	96.1%	48	1.6%	24
Montgomery	83.7%	114	91.4%	76	9.1%	38
Morgan	100.0%	1	98.7%	17	-1.3%	-16
Muhlenberg	93.2%	79	93.9%	61	0.8%	18
Nelson	91.7%	91	91.4%	78	-0.4%	13
Nicholas	100.0%	1	0.0%	110	-100.0%	-109
Ohio	84.7%	113	92.7%	72	9.5%	41
Oldham	98.0%	33	96.5%	43	-1.5%	-10
Owen	94.7%	70	97.3%	27	2.8%	43
Owsley	92.7%	84	0.0%	110	-100.0%	-26
Pendleton	97.1%	46	0.0%	110	-100.0%	-64
Perry	93.1%	80	89.4%	89	-4.0%	-9
Pike	98.6%	22	99.2%	10	0.7%	12
Powell	85.3%	112	88.5%	92	3.7%	20
Pulaski	90.8%	93	98.5%	19	8.4%	74

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.0%	N/A	93.3%	N/A	-0.7%	N/A
Robertson	100.0%	1	97.1%	35	-2.9%	-34
Rockcastle	98.3%	25	97.4%	26	-0.9%	-1
Rowan	94.1%	74	94.1%	60	0.1%	14
Russell	99.3%	11	97.1%	33	-2.1%	-22
Scott	96.4%	54	92.0%	75	-4.6%	-21
Shelby	95.8%	58	97.2%	30	1.5%	28
Simpson	98.5%	23	97.7%	25	-0.9%	-2
Spencer	98.9%	15	98.1%	20	-0.9%	-5
Taylor	97.8%	40	98.7%	15	1.0%	25
Todd	94.5%	73	97.2%	29	2.9%	44
Trigg	98.6%	21	97.8%	24	-0.8%	-3
Trimble	92.6%	85	0.0%	110	-100.0%	-25
Union	97.1%	47	83.0%	101	-14.4%	-54
Warren	94.8%	68	86.3%	95	-9.0%	-27
Washington	96.7%	49	96.6%	41	-0.1%	8
Wayne	98.3%	26	99.5%	8	1.2%	18
Webster	89.8%	100	83.4%	100	-7.1%	0
Whitley	93.7%	77	90.9%	79	-3.0%	-2
Wolfe	98.9%	16	93.9%	63	-5.1%	-47
Woodford	97.9%	34	98.6%	18	0.7%	16

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	92.3%	N/A	92.0%	N/A	-0.3%	N/A
Adair	99.0%	9	100.0%	1	1.0%	8
Allen	98.7%	11	99.1%	9	0.4%	2
Anderson	98.3%	14	96.6%	34	-1.8%	-20
Ballard	100.0%	1	98.9%	11	-1.1%	-10
Barren	96.1%	43	96.6%	30	0.6%	13
Bath	87.1%	98	88.1%	87	1.2%	11
Bell	84.4%	108	88.7%	85	5.1%	23
Boone	96.7%	34	97.0%	26	0.3%	8
Bourbon	95.6%	46	94.0%	52	-1.7%	-6
Boyd	92.9%	73	91.6%	68	-1.5%	5
Boyle	92.7%	76	71.6%	108	-22.8%	-32
Bracken	96.5%	39	95.2%	48	-1.3%	-9
Breathitt	85.6%	104	83.3%	99	-2.7%	5
Breckinridge	95.9%	45	96.7%	29	0.9%	16
Bullitt	89.2%	94	92.9%	61	4.1%	33
Butler	93.8%	66	0.0%	110	-100.0%	-44
Caldwell	91.0%	88	95.7%	44	5.1%	44
Calloway	97.2%	28	96.6%	32	-0.6%	-4
Campbell	94.8%	52	97.2%	23	2.6%	29
Carlisle	92.3%	80	90.2%	73	-2.3%	7

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	92.3%	N/A	92.0%	N/A	-0.3%	N/A
Carroll	84.2%	109	84.7%	95	0.6%	14
Carter	91.5%	85	92.3%	63	0.9%	22
Casey	86.2%	103	96.5%	35	12.0%	68
Christian	85.6%	105	87.5%	90	2.2%	15
Clark	94.1%	65	72.7%	106	-22.7%	-41
Clay	91.9%	82	96.5%	37	5.0%	45
Clinton	94.7%	53	89.2%	81	-5.8%	-28
Crittenden	89.7%	91	81.7%	101	-8.9%	-10
Cumberland	93.0%	72	0.0%	110	-100.0%	-38
Daviess	80.9%	114	70.4%	109	-13.0%	5
Edmonson	94.2%	62	98.2%	19	4.2%	43
Elliott	96.2%	42	0.0%	110	-100.0%	-68
Estill	86.2%	101	83.8%	98	-2.8%	3
Fayette	95.2%	48	95.7%	43	0.5%	5
Fleming	98.2%	18	100.0%	1	1.8%	17
Floyd	96.7%	33	98.2%	20	1.5%	13
Franklin	87.5%	97	92.9%	60	6.2%	37
Fulton	100.0%	1	98.7%	13	-1.3%	-12
Gallatin	92.3%	80	0.0%	110	-100.0%	-30
Garrard	77.5%	118	71.8%	107	-7.3%	11

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	92.3%	N/A	92.0%	N/A	-0.3%	N/A
Grant	97.2%	29	95.7%	42	-1.5%	-13
Graves	96.2%	41	98.5%	17	2.4%	24
Grayson	98.0%	21	99.6%	7	1.6%	14
Green	93.8%	67	90.6%	72	-3.4%	-5
Greenup	94.4%	60	96.1%	40	1.8%	20
Hancock	92.4%	79	95.9%	41	3.8%	38
Hardin	85.4%	106	86.8%	92	1.7%	14
Harlan	83.0%	112	76.1%	105	-8.4%	7
Harrison	89.3%	93	91.5%	69	2.4%	24
Hart	98.2%	19	96.6%	31	-1.6%	-12
Henderson	96.0%	44	93.8%	53	-2.3%	-9
Henry	96.3%	40	95.7%	45	-0.7%	-5
Hickman	100.0%	1	100.0%	1	0.0%	0
Hopkins	96.5%	36	95.6%	46	-1.0%	-10
Jackson	99.0%	10	100.0%	1	1.0%	9
Jefferson	91.5%	86	90.2%	74	-1.4%	12
Jessamine	95.2%	50	0.0%	110	-100.0%	-60
Johnson	89.0%	95	87.6%	89	-1.5%	6
Kenton	94.3%	61	96.3%	39	2.1%	22
Knott	97.9%	24	91.2%	70	-6.9%	-46

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	92.3%	N/A	92.0%	N/A	-0.3%	N/A
Knox	79.4%	116	86.0%	94	8.3%	22
LaRue	100.0%	1	97.2%	24	-2.8%	-23
Laurel	86.8%	99	89.1%	82	2.7%	17
Lawrence	79.2%	117	79.2%	103	0.0%	14
Lee	86.2%	102	0.0%	110	-100.0%	-8
Leslie	96.9%	32	89.8%	77	-7.3%	-45
Letcher	91.5%	84	93.1%	56	1.7%	28
Lewis	94.6%	56	92.1%	65	-2.6%	-9
Lincoln	95.3%	47	96.4%	38	1.1%	9
Livingston	90.7%	89	79.0%	104	-12.9%	-15
Logan	86.7%	100	84.5%	96	-2.6%	4
Lyon	94.5%	58	89.6%	79	-5.3%	-21
Madison	92.6%	77	93.7%	54	1.2%	23
Magoffin	83.6%	111	87.4%	91	4.6%	20
Marion	97.4%	26	95.0%	50	-2.4%	-24
Marshall	92.5%	78	88.8%	84	-4.1%	-6
Martin	97.3%	27	96.6%	33	-0.8%	-6
Mason	75.7%	120	81.7%	101	8.0%	19
McCracken	91.2%	87	93.6%	55	2.6%	32
McCreary	95.0%	51	84.3%	97	-11.3%	-46

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	92.3%	N/A	92.0%	N/A	-0.3%	N/A
McLean	76.7%	119	96.9%	27	26.4%	92
Meade	98.1%	20	98.8%	12	0.7%	8
Menifee	100.0%	1	91.9%	67	-8.1%	-66
Mercer	98.3%	16	99.6%	8	1.3%	8
Metcalfe	96.5%	37	0.0%	110	-100.0%	-73
Monroe	94.6%	55	94.5%	51	-0.1%	4
Montgomery	82.9%	113	90.0%	75	8.5%	38
Morgan	99.3%	7	98.7%	14	-0.7%	-7
Muhlenberg	84.9%	107	93.0%	58	9.5%	49
Nelson	88.4%	96	88.3%	86	-0.1%	10
Nicholas	100.0%	1	0.0%	110	-100.0%	-109
Ohio	79.6%	115	89.1%	83	11.9%	32
Oldham	96.9%	31	96.5%	36	-0.5%	-5
Owen	94.7%	54	97.3%	22	2.8%	32
Owsley	94.5%	57	0.0%	110	-100.0%	-53
Pendleton	96.6%	35	0.0%	110	-100.0%	-75
Perry	92.8%	75	86.4%	93	-6.9%	-18
Pike	97.1%	30	92.1%	64	-5.1%	-34
Powell	84.1%	110	89.4%	80	6.3%	30
Pulaski	89.3%	92	97.8%	21	9.4%	71

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	92.3%	N/A	92.0%	N/A	-0.3%	N/A
Robertson	94.4%	59	97.1%	25	2.8%	34
Rockcastle	98.3%	15	99.0%	10	0.6%	5
Rowan	92.9%	74	93.0%	57	0.2%	17
Russell	98.5%	12	96.8%	28	-1.8%	-16
Scott	94.2%	63	90.0%	76	-4.5%	-13
Shelby	93.1%	70	95.4%	47	2.5%	23
Simpson	99.0%	8	98.6%	15	-0.4%	-7
Spencer	98.4%	13	98.6%	16	0.2%	-3
Taylor	96.5%	38	100.0%	1	3.6%	37
Todd	93.8%	67	95.2%	49	1.5%	18
Trigg	97.9%	22	91.9%	66	-6.2%	-44
Trimble	91.6%	83	0.0%	110	-100.0%	-27
Union	94.1%	64	93.0%	59	-1.2%	5
Warren	95.2%	49	87.8%	88	-7.7%	-39
Washington	93.3%	69	92.4%	62	-1.0%	7
Wayne	98.3%	17	100.0%	1	1.8%	16
Webster	89.8%	90	82.9%	100	-7.7%	-10
Whitley	93.0%	71	90.6%	71	-2.6%	0
Wolfe	97.9%	25	89.8%	77	-8.3%	-52
Woodford	97.9%	23	98.3%	18	0.3%	5

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ Polio					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.5%	N/A	93.9%	N/A	-0.6%	N/A
Adair	99.5%	10	100.0%	2	0.5%	8
Allen	98.7%	24	98.7%	17	0.0%	7
Anderson	98.8%	23	96.6%	41	-2.2%	-18
Ballard	100.0%	1	98.9%	16	-1.1%	-15
Barren	96.7%	52	96.5%	45	-0.2%	7
Bath	89.1%	105	90.1%	86	1.1%	19
Bell	89.3%	103	89.8%	90	0.5%	13
Boone	97.8%	40	97.2%	31	-0.6%	9
Bourbon	96.4%	57	96.4%	48	0.0%	9
Boyd	95.0%	70	91.8%	78	-3.4%	-8
Boyle	93.6%	84	91.5%	81	-2.2%	3
Bracken	99.1%	17	98.1%	24	-1.0%	-7
Breathitt	88.8%	106	90.0%	87	1.3%	19
Breckinridge	97.7%	41	97.3%	29	-0.5%	12
Bullitt	90.5%	95	94.3%	64	4.2%	31
Butler	93.8%	81	0.0%	110	-100.0%	-29
Caldwell	91.7%	92	97.1%	33	5.9%	59
Calloway	97.5%	44	96.6%	41	-0.9%	3
Campbell	95.7%	64	97.2%	31	1.5%	33
Carlisle	94.9%	73	90.2%	85	-4.9%	-12

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ Polio					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.5%	N/A	93.9%	N/A	-0.6%	N/A
Carroll	79.5%	120	75.8%	109	-4.7%	11
Carter	95.5%	66	94.1%	66	-1.4%	0
Casey	86.8%	112	94.8%	60	9.2%	52
Christian	88.7%	107	89.9%	89	1.3%	18
Clark	95.8%	61	87.9%	99	-8.2%	-38
Clay	93.6%	83	97.7%	27	4.3%	56
Clinton	96.2%	58	88.5%	97	-8.0%	-39
Crittenden	90.7%	94	78.5%	106	-13.4%	-12
Cumberland	95.8%	63	0.0%	110	-100.0%	-47
Daviess	93.7%	82	89.3%	93	-4.7%	-11
Edmonson	93.5%	85	100.0%	2	6.9%	83
Elliott	96.2%	59	0.0%	110	-100.0%	-51
Estill	89.8%	99	87.2%	100	-2.9%	-1
Fayette	96.9%	50	96.5%	45	-0.4%	5
Fleming	99.4%	12	100.0%	2	0.6%	10
Floyd	97.6%	43	98.3%	22	0.7%	21
Franklin	93.3%	86	94.4%	63	1.1%	23
Fulton	100.0%	1	98.7%	17	-1.3%	-16
Gallatin	97.4%	45	0.0%	110	-100.0%	-65
Garrard	79.7%	119	77.5%	107	-2.7%	12

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ Polio					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.5%	N/A	93.9%	N/A	-0.6%	N/A
Grant	98.1%	36	97.9%	26	-0.2%	10
Graves	98.5%	28	99.5%	10	1.0%	18
Grayson	99.3%	13	100.0%	2	0.7%	11
Green	94.6%	74	92.0%	77	-2.8%	-3
Greenup	96.0%	60	95.9%	50	-0.1%	10
Hancock	94.1%	79	96.7%	38	2.8%	41
Hardin	88.1%	108	88.6%	96	0.6%	12
Harlan	84.8%	116	81.5%	104	-3.9%	12
Harrison	91.2%	93	95.1%	56	4.3%	37
Hart	98.8%	22	96.6%	41	-2.2%	-19
Henderson	98.4%	31	95.0%	57	-3.4%	-26
Henry	96.8%	51	95.7%	53	-1.2%	-2
Hickman	100.0%	1	100.0%	2	0.0%	-1
Hopkins	97.9%	38	96.5%	45	-1.4%	-7
Jackson	99.5%	11	100.4%	1	0.9%	10
Jefferson	93.0%	87	91.7%	79	-1.4%	8
Jessamine	96.5%	56	0.0%	110	-100.0%	-54
Johnson	90.0%	98	89.7%	91	-0.3%	7
Kenton	95.7%	65	96.9%	35	1.3%	30
Knott	98.9%	18	92.2%	76	-6.8%	-58

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ Polio					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.5%	N/A	93.9%	N/A	-0.6%	N/A
Knox	85.1%	115	88.9%	95	4.4%	20
LaRue	100.0%	1	96.7%	38	-3.3%	-37
Laurel	90.1%	97	89.3%	93	-0.9%	4
Lawrence	84.7%	117	77.3%	108	-8.7%	9
Lee	87.4%	109	0.0%	110	-100.0%	-1
Leslie	99.2%	15	95.9%	50	-3.4%	-35
Letcher	95.1%	69	94.9%	58	-0.2%	11
Lewis	97.3%	47	92.7%	73	-4.7%	-26
Lincoln	96.9%	49	93.8%	67	-3.2%	-18
Livingston	89.7%	102	82.7%	102	-7.8%	0
Logan	89.8%	101	90.4%	84	0.7%	17
Lyon	94.5%	75	91.0%	82	-3.7%	-7
Madison	96.6%	54	95.7%	52	-1.0%	2
Magoffin	86.8%	111	89.9%	88	3.6%	23
Marion	97.8%	39	98.7%	19	0.9%	20
Marshall	94.0%	80	92.3%	75	-1.7%	5
Martin	97.3%	46	97.7%	27	0.4%	19
Mason	87.2%	110	87.1%	101	-0.1%	9
McCracken	92.5%	90	95.6%	54	3.3%	36
McCreary	98.2%	35	94.5%	62	-3.7%	-27

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ Polio					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.5%	N/A	93.9%	N/A	-0.6%	N/A
McLean	89.2%	104	96.9%	36	8.7%	68
Meade	98.1%	37	99.1%	14	1.0%	23
Menifee	100.0%	1	93.0%	69	-7.0%	-68
Mercer	98.7%	25	94.6%	61	-4.1%	-36
Metcalfe	99.1%	16	0.0%	110	-100.0%	-94
Monroe	95.3%	67	96.9%	37	1.6%	30
Montgomery	86.4%	114	93.0%	71	7.7%	43
Morgan	100.0%	1	99.3%	12	-0.7%	-11
Muhlenberg	94.9%	72	93.0%	70	-2.0%	2
Nelson	91.9%	91	91.7%	80	-0.2%	11
Nicholas	100.0%	1	0.0%	110	-100.0%	-109
Ohio	84.1%	118	93.6%	68	11.4%	50
Oldham	98.2%	34	97.2%	30	-1.0%	4
Owen	97.7%	42	95.5%	55	-2.3%	-13
Owsley	92.7%	88	0.0%	110	-100.0%	-22
Pendleton	98.3%	32	0.0%	110	-100.0%	-78
Perry	94.4%	77	91.0%	83	-3.6%	-6
Pike	98.5%	29	99.5%	8	1.1%	21
Powell	86.5%	113	89.4%	92	3.4%	21
Pulaski	90.4%	96	98.1%	23	8.6%	73

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ Polio					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	94.5%	N/A	93.9%	N/A	-0.6%	N/A
Robertson	100.0%	1	97.1%	34	-2.9%	-33
Rockcastle	98.9%	21	96.4%	49	-2.5%	-28
Rowan	94.1%	78	94.1%	65	0.1%	13
Russell	99.3%	14	98.6%	20	-0.7%	-6
Scott	94.9%	71	92.9%	72	-2.1%	-1
Shelby	95.8%	62	96.6%	40	0.9%	22
Simpson	99.5%	9	99.5%	9	0.0%	0
Spencer	98.9%	19	99.0%	15	0.1%	4
Taylor	98.4%	30	99.4%	11	1.0%	19
Todd	95.3%	68	97.9%	25	2.7%	43
Trigg	98.6%	27	98.5%	21	-0.1%	6
Trimble	92.6%	89	0.0%	110	-100.0%	-21
Union	97.1%	48	82.5%	103	-15.0%	-55
Warren	96.6%	55	88.5%	98	-8.4%	-43
Washington	96.7%	53	96.6%	44	-0.1%	9
Wayne	98.7%	26	100.0%	2	1.3%	24
Webster	89.8%	100	79.6%	105	-11.4%	-5
Whitley	94.4%	76	92.7%	74	-1.9%	2
Wolfe	98.9%	20	94.9%	59	-4.1%	-39
Woodford	98.3%	32	99.3%	13	1.1%	19

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	91.5%	N/A	91.2%	N/A	-0.3%	N/A
Adair	97.5%	19	99.5%	4	2.0%	15
Allen	98.7%	7	97.0%	27	-1.7%	-20
Anderson	96.3%	35	96.6%	32	0.3%	3
Ballard	98.9%	6	98.9%	10	0.0%	-4
Barren	95.6%	42	96.3%	34	0.8%	8
Bath	87.1%	95	86.2%	88	-1.0%	7
Bell	86.2%	97	87.7%	84	1.8%	13
Boone	96.3%	34	96.4%	33	0.1%	1
Bourbon	95.3%	45	94.0%	51	-1.4%	-6
Boyd	91.3%	83	91.0%	69	-0.3%	14
Boyle	91.1%	84	70.2%	107	-22.9%	-23
Bracken	95.6%	41	97.1%	24	1.6%	17
Breathitt	84.0%	109	83.3%	96	-0.8%	13
Breckinridge	95.1%	48	96.7%	30	1.7%	18
Bullitt	88.7%	90	92.5%	63	4.2%	27
Butler	93.1%	66	0.0%	110	-100.0%	-44
Caldwell	90.3%	86	95.0%	47	5.2%	39
Calloway	97.0%	30	96.0%	38	-0.9%	-8
Campbell	93.7%	62	96.3%	35	2.8%	27
Carlisle	92.3%	73	90.2%	74	-2.3%	-1

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	91.5%	N/A	91.2%	N/A	-0.3%	N/A
Carroll	71.9%	120	70.7%	106	-1.7%	14
Carter	91.8%	78	90.6%	73	-1.3%	5
Casey	84.9%	107	94.8%	49	11.6%	58
Christian	85.6%	99	87.7%	82	2.5%	17
Clark	93.6%	63	75.8%	104	-19.1%	-41
Clay	92.9%	67	95.8%	39	3.1%	28
Clinton	94.7%	50	91.4%	67	-3.5%	-17
Crittenden	86.0%	98	76.3%	103	-11.2%	-5
Cumberland	94.4%	57	0.0%	110	-100.0%	-53
Daviess	76.8%	117	65.5%	108	-14.7%	9
Edmonson	94.2%	58	98.2%	17	4.2%	41
Elliott	97.4%	22	0.0%	110	-100.0%	-88
Estill	85.0%	106	83.8%	95	-1.5%	11
Fayette	94.6%	52	95.1%	45	0.5%	7
Fleming	97.7%	18	100.0%	1	2.4%	17
Floyd	95.8%	39	98.7%	13	3.0%	26
Franklin	85.2%	105	93.2%	56	9.3%	49
Fulton	100.0%	1	98.7%	14	-1.3%	-13
Gallatin	89.7%	87	0.0%	110	-100.0%	-23
Garrard	76.9%	116	51.6%	109	-32.9%	7

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	91.5%	N/A	91.2%	N/A	-0.3%	N/A
Grant	96.2%	36	95.4%	42	-0.8%	-6
Graves	95.3%	44	98.5%	16	3.3%	28
Grayson	97.4%	25	98.9%	11	1.5%	14
Green	94.6%	51	90.6%	72	-4.3%	-21
Greenup	92.9%	68	93.9%	52	1.1%	16
Hancock	91.5%	82	95.1%	46	3.9%	36
Hardin	85.3%	104	85.7%	91	0.4%	13
Harlan	83.3%	112	75.5%	105	-9.4%	7
Harrison	88.4%	92	90.9%	70	2.8%	22
Hart	98.2%	12	97.0%	26	-1.2%	-14
Henderson	97.3%	27	96.8%	28	-0.5%	-1
Henry	95.8%	40	96.1%	37	0.4%	3
Hickman	100.0%	1	100.0%	1	0.0%	0
Hopkins	96.2%	37	95.2%	44	-1.0%	-7
Jackson	98.5%	9	100.0%	1	1.5%	8
Jefferson	90.5%	85	89.1%	80	-1.5%	5
Jessamine	95.2%	47	0.0%	110	-100.0%	-63
Johnson	88.6%	91	86.2%	89	-2.8%	2
Kenton	93.5%	65	95.6%	40	2.2%	25
Knott	95.3%	46	90.7%	71	-4.8%	-25

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	91.5%	N/A	91.2%	N/A	-0.3%	N/A
Knox	77.8%	114	84.5%	92	8.7%	22
LaRue	99.3%	5	96.7%	31	-2.6%	-26
Laurel	86.5%	96	87.6%	86	1.3%	10
Lawrence	79.2%	113	79.2%	101	0.0%	12
Lee	83.9%	110	0.0%	110	-100.0%	0
Leslie	97.7%	16	87.8%	81	-10.2%	-65
Letcher	92.3%	74	93.1%	57	1.0%	17
Lewis	94.6%	53	92.7%	62	-2.0%	-9
Lincoln	94.5%	55	95.3%	43	0.8%	12
Livingston	85.6%	100	79.0%	102	-7.7%	-2
Logan	85.5%	101	81.2%	100	-5.1%	1
Lyon	91.8%	77	89.6%	78	-2.4%	-1
Madison	92.4%	72	93.5%	54	1.3%	18
Magoffin	84.2%	108	86.2%	90	2.3%	18
Marion	96.1%	38	97.6%	21	1.7%	17
Marshall	91.6%	80	86.9%	87	-5.1%	-7
Martin	97.3%	26	97.7%	20	0.4%	6
Mason	74.8%	119	82.3%	98	10.0%	21
McCracken	89.1%	89	92.7%	61	4.1%	28
McCreary	95.0%	49	84.3%	93	-11.3%	-44

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	91.5%	N/A	91.2%	N/A	-0.3%	N/A
McLean	75.0%	118	93.0%	58	24.0%	60
Meade	97.5%	20	99.4%	5	2.0%	15
Menifee	100.0%	1	91.9%	64	-8.1%	-63
Mercer	97.4%	24	98.8%	12	1.4%	12
Metcalfe	96.5%	32	0.0%	110	-100.0%	-78
Monroe	93.8%	60	93.7%	53	-0.1%	7
Montgomery	83.5%	111	89.8%	76	7.5%	35
Morgan	98.6%	8	98.0%	18	-0.6%	-10
Muhlenberg	85.5%	102	93.0%	59	8.8%	43
Nelson	87.8%	94	87.6%	85	-0.2%	9
Nicholas	97.7%	16	0.0%	110	-100.0%	-94
Ohio	77.0%	115	81.8%	99	6.3%	16
Oldham	96.7%	31	96.2%	36	-0.5%	-5
Owen	95.4%	43	95.5%	41	0.1%	2
Owsley	94.5%	54	0.0%	110	-100.0%	-56
Pendleton	97.1%	29	0.0%	110	-100.0%	-81
Perry	91.7%	79	87.7%	83	-4.4%	-4
Pike	96.5%	33	99.2%	7	2.8%	26
Powell	85.3%	103	89.4%	79	4.8%	24
Pulaski	89.3%	88	97.3%	22	8.9%	66

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Kindergarten Results

Change in Percent of Coverage Rate and County Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	91.5%	N/A	91.2%	N/A	-0.3%	N/A
Robertson	94.4%	56	97.1%	25	2.8%	31
Rockcastle	98.3%	10	99.0%	8	0.6%	2
Rowan	92.1%	76	93.4%	55	1.4%	21
Russell	97.4%	23	96.8%	29	-0.7%	-6
Scott	92.8%	69	89.7%	77	-3.3%	-8
Shelby	92.1%	75	94.8%	48	2.9%	27
Simpson	99.5%	4	97.2%	23	-2.3%	-19
Spencer	97.9%	14	98.6%	15	0.7%	-1
Taylor	97.5%	21	99.4%	6	2.0%	15
Todd	93.8%	61	94.5%	50	0.8%	11
Trigg	97.9%	13	91.2%	68	-6.9%	-55
Trimble	91.6%	81	0.0%	110	-100.0%	-29
Union	94.1%	59	93.0%	60	-1.2%	-1
Warren	93.5%	64	84.0%	94	-10.2%	-30
Washington	92.7%	70	91.7%	65	-1.0%	5
Wayne	98.3%	11	99.0%	9	0.7%	2
Webster	88.1%	93	82.3%	97	-6.5%	-4
Whitley	92.6%	71	91.5%	66	-1.2%	5
Wolfe	97.9%	15	89.8%	75	-8.3%	-60
Woodford	97.2%	28	97.9%	19	0.7%	9

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	95.3%	N/A	-2.6%	N/A
Adair	99.5%	28	84.7%	100	-14.8%	-72
Allen	99.5%	27	96.9%	73	-2.6%	-46
Anderson	98.5%	65	98.3%	54	-0.2%	11
Ballard	100.0%	1	100.0%	1	0.0%	0
Barren	94.9%	113	97.4%	69	2.6%	44
Bath	96.0%	106	100.0%	1	4.2%	105
Bell	96.6%	96	85.2%	99	-11.8%	-3
Boone	97.4%	88	97.3%	70	-0.1%	18
Bourbon	100.0%	1	98.4%	49	-1.6%	-48
Boyd	96.4%	101	55.8%	108	-42.2%	-7
Boyle	98.3%	70	97.1%	71	-1.2%	-1
Bracken	98.4%	69	100.0%	1	1.7%	68
Breathitt	97.4%	87	100.0%	1	2.6%	86
Breckinridge	98.9%	47	100.0%	1	1.1%	46
Bullitt	98.3%	71	91.7%	89	-6.7%	-18
Butler	97.7%	83	0.0%	110	-100.0%	-27
Caldwell	99.3%	35	100.0%	1	0.7%	34
Calloway	98.4%	68	97.7%	65	-0.7%	3
Campbell	98.4%	67	99.5%	28	1.1%	39
Carlisle	98.2%	74	93.9%	84	-4.3%	-10

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	95.3%	N/A	-2.6%	N/A
Carroll	99.3%	35	100.0%	1	0.7%	34
Carter	99.1%	42	99.2%	35	0.1%	7
Casey	95.8%	107	94.7%	82	-1.1%	25
Christian	97.1%	89	97.0%	72	-0.1%	17
Clark	95.6%	109	93.8%	85	-2.0%	24
Clay	98.2%	74	99.2%	37	1.0%	37
Clinton	100.0%	1	100.0%	1	0.0%	0
Crittenden	99.0%	45	90.9%	91	-8.2%	-46
Cumberland	98.5%	64	0.0%	110	-100.0%	-46
Daviess	98.5%	62	98.2%	58	-0.4%	4
Edmonson	99.3%	33	99.4%	30	0.0%	3
Elliott	100.0%	1	0.0%	110	-100.0%	-109
Estill	98.9%	48	95.1%	81	-3.8%	-33
Fayette	98.6%	61	98.2%	56	-0.4%	5
Fleming	100.0%	1	100.0%	1	0.0%	0
Floyd	99.6%	23	99.7%	24	0.1%	-1
Franklin	87.0%	119	82.4%	103	-5.2%	16
Fulton	97.0%	90	100.0%	1	3.1%	89
Gallatin	98.4%	66	99.2%	36	0.7%	30
Garrard	95.6%	110	0.5%	109	-99.5%	1

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	95.3%	N/A	-2.6%	N/A
Grant	99.1%	40	100.0%	1	0.9%	39
Graves	95.8%	108	98.1%	60	2.4%	48
Grayson	99.7%	20	72.1%	106	-27.6%	-86
Green	100.0%	1	95.7%	78	-4.4%	-77
Greenup	99.2%	39	98.5%	48	-0.7%	-9
Hancock	100.0%	1	0.0%	110	-100.0%	-109
Hardin	94.4%	115	99.1%	39	5.0%	76
Harlan	86.1%	120	92.8%	87	7.8%	33
Harrison	96.8%	93	0.0%	110	-100.0%	-17
Hart	97.8%	81	77.0%	104	-21.3%	-23
Henderson	99.5%	25	96.9%	74	-2.6%	-49
Henry	99.1%	40	89.8%	94	-9.4%	-54
Hickman	100.0%	1	100.0%	1	0.0%	0
Hopkins	99.5%	26	98.4%	52	-1.1%	-26
Jackson	99.3%	34	90.9%	92	-8.5%	-58
Jefferson	97.9%	80	97.5%	68	-0.4%	12
Jessamine	99.0%	46	0.0%	110	-100.0%	-64
Johnson	95.1%	112	98.1%	59	3.2%	53
Kenton	98.8%	52	98.9%	41	0.1%	11
Knott	99.4%	29	97.7%	66	-1.7%	-37

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	95.3%	N/A	-2.6%	N/A
Knox	96.8%	95	96.8%	76	0.0%	19
LaRue	99.4%	32	100.0%	1	0.6%	31
Laurel	97.5%	85	98.5%	47	1.1%	38
Lawrence	98.1%	78	99.4%	29	1.4%	49
Lee	89.6%	118	85.2%	98	-4.9%	20
Leslie	97.5%	84	100.0%	1	2.5%	83
Letcher	98.6%	60	97.7%	67	-0.9%	-7
Lewis	100.0%	1		110	-100.0%	-109
Lincoln	99.6%	21	97.9%	64	-1.8%	-43
Livingston	96.3%	103	91.1%	90	-5.4%	13
Logan	96.5%	98	98.6%	44	2.2%	54
Lyon	98.5%	63	94.5%	83	-4.0%	-20
Madison	98.7%	53	99.3%	31	0.6%	22
Magoffin	96.8%	94	87.5%	96	-9.6%	-2
Marion	97.7%	82	98.4%	53	0.7%	29
Marshall	98.3%	73	98.0%	63	-0.3%	10
Martin	98.6%	58	99.2%	33	0.6%	25
Mason	96.5%	99	90.7%	93	-5.9%	6
McCracken	98.7%	54	98.1%	60	-0.6%	-6
McCreary	99.6%	24	100.0%	1	0.4%	23

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	95.3%	N/A	-2.6%	N/A
McLean	99.2%	37	98.2%	55	-1.0%	-18
Meade	98.7%	56	99.5%	26	0.8%	30
Menifee	100.0%	1	95.3%	80	-4.7%	-79
Mercer	98.9%	49	99.1%	38	0.3%	11
Metcalfe	100.0%	1	95.6%	79	-4.4%	-78
Monroe	97.0%	90	100.0%	1	3.1%	89
Montgomery	98.9%	50	98.6%	46	-0.3%	4
Morgan	97.9%	79	98.8%	42	0.9%	37
Muhlenberg	99.2%	38	86.2%	97	-13.1%	-59
Nelson	93.1%	116	93.1%	86	0.0%	30
Nicholas	100.0%	1	0.0%	110	-100.0%	-109
Ohio	96.2%	105	100.0%	1	3.9%	104
Oldham	99.1%	43	98.1%	62	-1.0%	-19
Owen	100.0%	1	0.0%	110	-100.0%	-109
Owsley	92.2%	117	83.9%	101	-9.0%	16
Pendleton	99.4%	60	0.0%	110	-100.0%	-50
Perry	95.4%	111	89.5%	95	-6.2%	16
Pike	99.4%	31	96.9%	75	-2.5%	-44
Powell	97.5%	86	99.5%	27	2.1%	59
Pulaski	98.7%	57	99.3%	32	0.6%	25

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	3+ HepB					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	95.3%	N/A	-2.6%	N/A
Robertson	100.0%	1	96.3%	77	-3.7%	-76
Rockcastle	100.0%	1	100.0%	1	0.0%	0
Rowan	96.3%	103	98.4%	51	2.2%	52
Russell	98.1%	77	98.6%	44	0.6%	33
Scott	96.3%	102	83.3%	102	-13.5%	0
Shelby	98.6%	59	98.4%	50	-0.2%	9
Simpson	100.0%	1	100.0%	1	0.0%	0
Spencer	100.0%	1	100.0%	1	0.0%	0
Taylor	98.3%	72	99.5%	25	1.2%	47
Todd	98.7%	55	98.7%	43	0.0%	12
Trigg	100.0%	1	98.2%	56	-1.8%	-55
Trimble	98.1%	76	0.0%	110	-100.0%	-34
Union	98.8%	51	100.0%	1	1.2%	50
Warren	96.9%	92	71.9%	107	-25.8%	-15
Washington	96.5%	97	99.2%	34	2.8%	63
Wayne	99.6%	22	100.0%	1	0.4%	21
Webster	94.6%	114	72.9%	105	-23.0%	9
Whitley	96.5%	100	99.7%	23	3.4%	77
Wolfe	100.0%	1	92.0%	88	-8.0%	-87
Woodford	99.1%	44	99.0%	40	0.0%	4

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 MenACWY					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.0%	N/A	81.8%	N/A	-0.2%	N/A
Adair	96.8%	20	98.0%	11	1.2%	9
Allen	92.4%	41	83.0%	69	-10.2%	-28
Anderson	86.1%	68	84.5%	62	-1.8%	6
Ballard	100.0%	1	97.4%	14	-2.6%	-13
Barren	94.4%	33	91.1%	37	-3.5%	-4
Bath	56.6%	109	50.6%	106	-10.5%	3
Bell	26.5%	120	29.9%	110	12.8%	10
Boone	91.4%	46	89.4%	44	-2.2%	2
Bourbon	63.9%	103	97.9%	12	53.2%	91
Boyd	75.6%	88	31.8%	109	-58.0%	-21
Boyle	85.1%	72	83.0%	68	-2.4%	4
Bracken	88.6%	59	75.4%	84	-14.9%	-25
Breathitt	79.5%	79	75.9%	82	-4.6%	-3
Breckinridge	88.8%	57	94.7%	28	6.6%	29
Bullitt	73.0%	91	82.2%	72	12.6%	19
Butler	67.8%	98	0.0%	111	-100.0%	-13
Caldwell	76.5%	85	94.4%	32	23.5%	53
Calloway	96.5%	22	97.4%	15	1.0%	7
Campbell	93.4%	38	96.6%	18	3.5%	20
Carlisle	85.5%	70	77.3%	80	-9.6%	-10

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 MenACWY					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.0%	N/A	81.8%	N/A	-0.2%	N/A
Carroll	89.0%	56	76.6%	81	-13.9%	-25
Carter	97.9%	15	94.7%	27	-3.3%	-12
Casey	76.4%	86	84.1%	65	10.1%	21
Christian	53.5%	112	73.2%	88	36.9%	24
Clark	49.3%	116	75.0%	86	52.0%	30
Clay	93.5%	36	79.8%	76	-14.7%	-40
Clinton	91.5%	45	87.6%	55	-4.3%	-10
Crittenden	89.4%	53	86.4%	57	-3.4%	-4
Cumberland	47.7%	117	0.0%	111	-100.0%	6
Daviess	87.9%	61	89.1%	45	1.4%	16
Edmonson	65.1%	102	79.3%	77	21.7%	25
Elliott	87.3%	63	0.0%	111	-100.0%	-48
Estill	73.0%	92	75.6%	83	3.6%	9
Fayette	77.8%	81	72.9%	89	-6.3%	-8
Fleming	98.9%	7	98.7%	7	-0.2%	0
Floyd	89.4%	52	98.1%	10	9.7%	42
Franklin	51.2%	114	70.0%	93	36.7%	21
Fulton	97.0%	19	100.0%	2	3.1%	17
Gallatin	86.8%	64	82.1%	73	-5.4%	-9
Garrard	63.3%	105	72.5%	91	14.4%	14

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 MenACWY					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.0%	N/A	81.8%	N/A	-0.2%	N/A
Grant	89.1%	55	88.9%	46	-0.2%	9
Graves	92.9%	40	94.5%	30	1.7%	10
Grayson	91.6%	44	88.2%	50	-3.7%	-6
Green	86.8%	64	87.8%	53	1.2%	11
Greenup	84.7%	73	82.6%	71	-2.5%	2
Hancock	96.4%	24	0.0%	111	-100.0%	-87
Hardin	85.5%	71	88.7%	47	3.8%	24
Harlan	65.5%	100	5372.0%	1	8103.2%	99
Harrison	71.2%	96	0.0%	111	-100.0%	-15
Hart	93.0%	39	95.5%	24	2.8%	15
Henderson	87.4%	62	93.3%	33	6.8%	29
Henry	96.6%	21	89.8%	41	-7.0%	-20
Hickman	100.0%	1	98.4%	9	-1.6%	-8
Hopkins	88.1%	60	95.7%	22	8.7%	38
Jackson	98.6%	9	85.6%	60	-13.2%	-51
Jefferson	82.0%	75	78.0%	78	-4.8%	-3
Jessamine	96.2%	25	0.0%	111	-100.0%	-86
Johnson	75.2%	90	83.4%	66	11.0%	24
Kenton	89.3%	54	90.6%	39	1.5%	15
Knott	72.2%	93	57.5%	102	-20.4%	-9

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 MenACWY					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.0%	N/A	81.8%	N/A	-0.2%	N/A
Knox	54.3%	110	63.2%	99	16.5%	11
LaRue	98.7%	8	99.0%	6	0.2%	2
Laurel	67.3%	99	81.3%	75	20.9%	24
Lawrence	80.7%	76	87.8%	54	8.8%	22
Lee	45.8%	118	60.2%	101	31.4%	17
Leslie	93.4%	37	67.4%	95	-27.9%	-58
Letcher	96.5%	23	88.0%	52	-8.8%	-29
Lewis	91.3%	47	85.8%	58	-6.0%	-11
Lincoln	75.8%	87	94.7%	29	24.9%	58
Livingston	58.8%	107	39.6%	108	-32.6%	-1
Logan	77.1%	83	85.1%	61	10.4%	22
Lyon	77.6%	82	91.8%	36	18.3%	46
Madison	93.7%	35	94.4%	31	0.8%	4
Magoffin	42.3%	119	64.4%	97	52.1%	22
Marion	97.7%	16	95.2%	26	-2.6%	-10
Marshall	95.1%	30	88.3%	49	-7.1%	-19
Martin	90.5%	50	83.0%	70	-8.3%	-20
Mason	82.7%	74	56.1%	103	-32.2%	-29
McCracken	75.4%	89	84.2%	64	11.6%	25
McCreary	97.3%	17	89.8%	42	-7.7%	-25

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 MenACWY					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.0%	N/A	81.8%	N/A	-0.2%	N/A
McLean	99.2%	5	96.4%	19	-2.9%	-14
Meade	97.1%	18	98.4%	8	1.4%	10
Menifee	98.4%	11	92.3%	35	-6.2%	-24
Mercer	95.1%	31	97.4%	16	2.4%	15
Metcalfe	80.0%	78	72.8%	90	-9.0%	-12
Monroe	85.8%	69	95.6%	23	11.4%	46
Montgomery	76.5%	84	70.9%	92	-7.3%	-8
Morgan	91.1%	48	89.7%	43	-1.5%	5
Muhlenberg	93.9%	34	77.7%	79	-17.3%	-45
Nelson	71.4%	95	74.2%	87	4.0%	8
Nicholas	95.2%	29	0.0%	111	-100.0%	-82
Ohio	61.7%	106	65.0%	96	5.3%	10
Oldham	98.4%	10	82.1%	73	-16.6%	-63
Owen	98.1%	14	0.0%	111	-100.0%	-97
Owsley	56.9%	108	62.9%	100	10.6%	8
Pendleton	95.9%	26	0.0%	111	-100.0%	-85
Perry	89.9%	51	85.7%	59	-4.8%	-8
Pike	88.6%	58	96.4%	20	8.8%	38
Powell	51.3%	113	97.8%	13	90.8%	100
Pulaski	92.1%	42	95.4%	25	3.6%	17

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 MenACWY					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.0%	N/A	81.8%	N/A	-0.2%	N/A
Robertson	100.0%	1	96.3%	21	-3.7%	-20
Rockcastle	98.2%	12	91.1%	38	-7.3%	-26
Rowan	49.6%	115	67.9%	94	36.8%	21
Russell	95.7%	27	88.5%	48	-7.5%	-21
Scott	71.7%	94	44.3%	107	-38.1%	-13
Shelby	65.3%	101	88.2%	51	35.1%	50
Simpson	94.8%	32	87.6%	56	-7.7%	-24
Spencer	100.0%	1	99.6%	3	-0.4%	-2
Taylor	86.3%	67	99.0%	5	14.6%	62
Todd	80.6%	77	53.8%	104	-33.3%	-27
Trigg	92.3%	42	84.3%	63	-8.6%	-21
Trimble	90.7%	49	0.0%	111	-100.0%	-62
Union	95.2%	28	92.9%	34	-2.5%	-6
Warren	63.6%	104	63.6%	98	0.0%	6
Washington	86.8%	66	83.3%	67	-4.0%	-1
Wayne	99.2%	6	99.6%	4	0.3%	2
Webster	54.2%	111	75.3%	85	39.0%	26
Whitley	68.5%	97	89.9%	40	31.3%	57
Wolfe	78.9%	80	53.0%	105	-32.9%	-25
Woodford	98.1%	13	96.8%	17	-1.4%	-4

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	96.8%	N/A	-1.0%	N/A
Adair	98.4%	66	100%	2	1.6%	64
Allen	98.5%	60	96.94%	77	-1.6%	-17
Anderson	98.1%	75	98.28%	54	0.1%	21
Ballard	100.0%	1	100%	2	0.0%	-1
Barren	98.9%	41	98.95%	31	0.1%	10
Bath	95.4%	111	95.63%	90	0.2%	21
Bell	96.1%	104	92.61%	103	-3.6%	1
Boone	97.4%	88	97.13%	74	-0.3%	14
Bourbon	97.0%	93	98.44%	44	1.5%	49
Boyd	95.6%	108	55.56%	110	-41.9%	-2
Boyle	97.8%	80	96.87%	79	-0.9%	1
Bracken	95.9%	106	100%	2	4.2%	104
Breathitt	97.4%	86	100%	2	2.6%	84
Breckinridge	98.2%	73	98.67%	39	0.5%	34
Bullitt	98.2%	72	97.90%	62	-0.3%	10
Butler	98.2%	70	0.0%	111	-100.0%	-41
Caldwell	98.5%	54	100%	2	1.5%	52
Calloway	98.4%	65	98.29%	52	-0.1%	13
Campbell	98.5%	56	99.46%	20	1.0%	36
Carlisle	98.2%	74	95.45%	93	-2.8%	-19

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	96.8%	N/A	-1.0%	N/A
Carroll	99.3%	33	98.1%	58	-1.2%	-25
Carter	99.4%	25	99.0%	1	9878.7%	24
Casey	97.0%	95	98.0%	60	1.1%	35
Christian	97.3%	89	97.3%	69	0.0%	20
Clark	96.3%	103	93.8%	98	-2.6%	5
Clay	97.8%	78	99.2%	26	1.4%	52
Clinton	99.2%	37	99.1%	28	0.0%	9
Crittenden	99.0%	40	94.3%	97	-4.8%	-57
Cumberland	100.0%	1	0.0%	111	-100.0%	-110
Daviess	98.5%	61	98.1%	57	-0.4%	4
Edmonson	99.3%	29	97.6%	67	-1.8%	-38
Elliott	100.0%	1	0.0%	111	-100.0%	-110
Estill	98.4%	66	77.4%	108	-21.3%	-42
Fayette	98.4%	64	97.7%	63	-0.7%	1
Fleming	100.0%	1	100.0%	2	0.0%	-1
Floyd	99.4%	28	99.4%	22	0.0%	6
Franklin	86.8%	120	80.3%	107	-7.5%	13
Fulton	97.0%	92	100.0%	2	3.1%	90
Gallatin	98.4%	62	99.2%	24	0.7%	38
Garrard	95.6%	108	96.4%	86	0.9%	22

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	96.8%	N/A	-1.0%	N/A
Grant	98.9%	42	99.7%	17	0.9%	25
Graves	95.5%	110	98.6%	41	3.2%	69
Grayson	99.7%	17	72.1%	109	-27.6%	-92
Green	98.4%	62	96.5%	84	-2.0%	-22
Greenup	98.3%	68	98.7%	38	0.3%	30
Hancock	100.0%	1	0.0%	111	-100.0%	-110
Hardin	96.6%	100	97.2%	72	0.6%	28
Harlan	87.0%	119	91.2%	104	4.8%	15
Harrison	96.4%	101	0.0%	111	-100.0%	-10
Hart	98.2%	71	98.9%	34	0.7%	37
Henderson	98.9%	42	98.5%	43	-0.4%	-1
Henry	99.1%	38	98.9%	33	-0.2%	5
Hickman	100.0%	1	98.4%	49	-1.6%	-48
Hopkins	99.3%	30	98.4%	48	-0.9%	-18
Jackson	99.3%	31	97.0%	76	-2.4%	-45
Jefferson	97.7%	81	97.2%	71	-0.5%	10
Jessamine	98.8%	46	0.0%	111	-100.0%	-65
Johnson	93.9%	114	96.9%	79	3.2%	35
Kenton	98.6%	53	98.6%	42	0.0%	11
Knott	99.4%	24	96.6%	82	-2.9%	-58

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	96.8%	N/A	-1.0%	N/A
Knox	95.6%	107	96.5%	85	0.9%	22
LaRue	98.7%	47	98.4%	45	-0.3%	2
Laurel	95.4%	112	96.5%	83	1.2%	29
Lawrence	98.1%	77	99.4%	21	1.4%	56
Lee	91.7%	117	89.8%	105	-2.1%	12
Leslie	98.3%	68	100.0%	2	1.7%	66
Letcher	98.6%	52	98.3%	55	-0.3%	-3
Lewis	99.5%	23	100.0%	2	0.5%	21
Lincoln	99.6%	18	99.3%	23	-0.4%	-5
Livingston	97.5%	85	93.1%	100	-4.5%	-15
Logan	99.1%	39	96.9%	78	-2.3%	-39
Lyon	98.5%	57	100.0%	2	1.5%	55
Madison	98.1%	76	98.9%	32	0.8%	44
Magoffin	97.4%	86	95.6%	90	-1.9%	-4
Marion	97.0%	94	98.4%	49	1.5%	45
Marshall	98.5%	54	97.3%	70	-1.3%	-16
Martin	98.6%	49	97.7%	65	-1.0%	-16
Mason	96.0%	105	92.7%	102	-3.5%	3
McCracken	97.8%	79	97.7%	64	-0.1%	15
McCreary	98.7%	48	100.0%	2	1.4%	46

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	96.8%	N/A	-1.0%	N/A
McLean	99.2%	34	99.1%	29	-0.1%	5
Meade	99.5%	22	99.5%	19	0.0%	3
Menifee	100.0%	1	95.3%	94	-4.7%	-93
Mercer	98.5%	59	98.7%	37	0.2%	22
Metcalfe	100.0%	1	95.6%	92	-4.4%	-91
Monroe	98.5%	57	100.0%	2	1.5%	55
Montgomery	97.7%	82	97.2%	73	-0.6%	9
Morgan	93.8%	115	98.8%	35	5.3%	80
Muhlenberg	99.2%	35	96.4%	87	-2.8%	-52
Nelson	97.5%	84	98.0%	61	0.4%	23
Nicholas	100.0%	1	0.0%	111	-100.0%	-110
Ohio	96.8%	97	98.3%	52	1.5%	45
Oldham	99.2%	36	97.7%	66	-1.5%	-30
Owen	100.0%	1	0.0%	111	-100.0%	-110
Owsley	88.2%	118	83.9%	106	-4.9%	12
Pendleton	98.8%	44	0.0%	111	-100.0%	-67
Perry	97.3%	90	93.4%	99	-4.0%	-9
Pike	99.5%	21	97.0%	75	-2.5%	-54
Powell	97.0%	96	98.4%	51	1.5%	45
Pulaski	99.3%	32	99.2%	24	-0.1%	8

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 MMR					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	97.8%	N/A	96.8%	N/A	-1.0%	N/A
Robertson	100.0%	1	96.3%	88	-3.7%	-87
Rockcastle	100.0%	1	100.0%	2	0.0%	-1
Rowan	92.9%	116	98.4%	46	5.9%	70
Russell	99.5%	20	98.6%	40	-0.9%	-20
Scott	96.8%	98	97.3%	68	0.5%	30
Shelby	98.6%	51	98.0%	59	-0.6%	-8
Simpson	100.0%	1	99.0%	30	-1.0%	-29
Spencer	100.0%	1	99.1%	27	-0.9%	-26
Taylor	98.6%	50	100.0%	2	1.4%	48
Todd	100.0%	1	96.8%	81	-3.2%	-80
Trigg	99.4%	27	98.2%	56	-1.2%	-29
Trimble	96.3%	102	0.0%	111	-100.0%	-9
Union	98.8%	45	92.9%	101	-6.0%	-56
Warren	97.6%	83	95.8%	89	-1.8%	-6
Washington	97.2%	91	98.4%	46	1.2%	45
Wayne	99.6%	19	100.0%	2	0.4%	17
Webster	95.2%	113	94.6%	96	-0.7%	17
Whitley	96.6%	99	99.7%	18	3.2%	81
Wolfe	100.0%	1	95.0%	95	-5.0%	-94
Woodford	99.4%	26	98.7%	36	-0.7%	-10

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 Tdap					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.9%	N/A	84.5%	N/A	1.9%	N/A
Adair	96.2%	24	97.4%	19	1.3%	5
Allen	93.9%	38	83.4%	78	-11.2%	-40
Anderson	89.5%	57	98.6%	12	10.2%	45
Ballard	100.0%	1	97.4%	19	-2.6%	-18
Barren	94.7%	32	92.7%	42	-2.2%	-10
Bath	58.9%	108	49.4%	108	-16.1%	0
Bell	27.1%	120	31.7%	110	17.0%	10
Boone	91.0%	48	90.0%	49	-1.2%	-1
Bourbon	65.4%	105	87.9%	62	34.4%	43
Boyd	75.4%	91	63.9%	101	-15.2%	-10
Boyle	85.4%	75	85.4%	72	0.0%	3
Bracken	89.4%	59	83.3%	79	-6.8%	-20
Breathitt	80.5%	82	75.9%	90	-5.8%	-8
Breckinridge	88.8%	62	98.7%	11	11.1%	51
Bullitt	74.0%	95	83.9%	77	13.4%	18
Butler	70.8%	99	0.0%	111	-100.0%	-12
Caldwell	80.1%	83	95.8%	32	19.5%	51
Calloway	95.8%	26	96.9%	23	1.1%	3
Campbell	93.2%	43	96.5%	25	3.6%	18
Carlisle	87.3%	68	81.8%	80	-6.2%	-12

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 Tdap					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.9%	N/A	84.5%	N/A	1.9%	N/A
Carroll	90.4%	51	76.0%	89	-16.0%	-38
Carter	99.1%	9	95.5%	35	-3.7%	-26
Casey	79.4%	85	84.1%	75	5.9%	10
Christian	56.2%	109	81.5%	81	45.0%	28
Clark	51.3%	114	81.3%	82	58.4%	32
Clay	92.7%	46	94.2%	40	1.6%	6
Clinton	94.1%	36	88.5%	60	-5.9%	-24
Crittenden	90.4%	52	86.4%	69	-4.5%	-17
Cumberland	52.3%	113	0.0%	111	-100.0%	2
Daviess	88.8%	63	89.7%	52	1.0%	11
Edmonson	68.4%	101	79.3%	84	15.9%	17
Elliott	87.3%	67	0.0%	111	-100.0%	-44
Estill	74.1%	94	98.2%	15	32.6%	79
Fayette	78.8%	86	74.1%	92	-6.0%	-6
Fleming	98.9%	10	98.7%	10	-0.2%	0
Floyd	90.5%	50	97.8%	17	8.1%	33
Franklin	52.3%	112	70.2%	94	34.2%	18
Fulton	95.5%	29	100.0%	1	4.7%	28
Gallatin	86.8%	69	87.0%	67	0.2%	2
Garrard	96.7%	23	95.9%	30	-0.8%	-7

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 Tdap					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.9%	N/A	84.5%	N/A	1.9%	N/A
Grant	88.8%	64	88.9%	56	0.1%	8
Graves	93.4%	41	95.3%	39	2.0%	2
Grayson	89.9%	54	88.5%	58	-1.5%	-4
Green	89.9%	53	87.8%	63	-2.3%	-10
Greenup	85.1%	76	92.1%	43	8.1%	33
Hancock	97.1%	18	0.0%	111	-100.0%	-93
Hardin	85.5%	74	89.0%	55	4.0%	19
Harlan	87.3%	66	57.6%	105	-34.1%	-39
Harrison	71.2%	98	0.0%	111	-100.0%	-13
Hart	94.3%	34	96.1%	29	1.9%	5
Henderson	86.2%	73	93.3%	41	8.2%	32
Henry	95.7%	28	89.8%	51	-6.1%	-23
Hickman	100.0%	1	98.4%	13	-1.6%	-12
Hopkins	89.1%	61	95.6%	34	7.3%	27
Jackson	99.3%	6	86.0%	71	-13.4%	-65
Jefferson	82.9%	77	79.4%	83	-4.1%	-6
Jessamine	96.9%	20	0.0%	111	-100.0%	-91
Johnson	75.2%	92	84.0%	76	11.8%	16
Kenton	89.5%	58	91.1%	44	1.8%	14
Knott	74.4%	93	61.5%	102	-17.4%	-9

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 Tdap					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.9%	N/A	84.5%	N/A	1.9%	N/A
Knox	54.5%	111	64.1%	100	17.5%	11
LaRue	97.4%	16	99.5%	3	2.1%	13
Laurel	67.9%	104	95.9%	31	41.1%	73
Lawrence	82.1%	79	87.8%	64	6.9%	15
Lee	45.8%	118	59.1%	103	28.9%	15
Leslie	93.4%	42	67.4%	95	-27.9%	-53
Letcher	95.7%	27	86.8%	68	-9.3%	-41
Lewis	89.6%	55	89.0%	54	-0.7%	1
Lincoln	76.1%	90	99.3%	5	30.4%	85
Livingston	60.0%	107	39.6%	109	-34.0%	-2
Logan	77.7%	87	87.5%	65	12.6%	22
Lyon	86.6%	70	97.3%	22	12.4%	48
Madison	93.8%	40	95.3%	37	1.6%	3
Magoffin	42.3%	119	66.9%	97	58.1%	22
Marion	97.7%	15	95.6%	33	-2.2%	-18
Marshall	95.3%	30	88.6%	57	-7.1%	-27
Martin	93.9%	39	97.7%	18	4.0%	21
Mason	82.7%	78	57.6%	106	-30.4%	-28
McCracken	77.1%	88	84.2%	74	9.2%	14
McCreary	97.3%	17	90.8%	46	-6.7%	-29

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 Tdap					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.9%	N/A	84.5%	N/A	1.9%	N/A
McLean	99.2%	7	96.4%	26	-2.9%	-19
Meade	96.8%	21	99.2%	6	2.5%	15
Menifee	100.0%	1	95.3%	38	-4.7%	-37
Mercer	94.7%	33	97.4%	21	2.8%	12
Metcalfe	80.8%	81	76.3%	87	-5.6%	-6
Monroe	86.6%	70	96.2%	28	11.1%	42
Montgomery	76.8%	89	70.9%	93	-7.6%	-4
Morgan	91.1%	47	89.7%	52	-1.5%	-5
Muhlenberg	92.8%	45	77.4%	86	-16.6%	-41
Nelson	73.5%	96	78.8%	85	7.3%	11
Nicholas	94.0%	37	0.0%	111	-100.0%	-74
Ohio	63.6%	106	65.8%	98	3.5%	8
Oldham	98.4%	11	98.4%	13	0.0%	-2
Owen	98.1%	14	0.0%	111	-100.0%	-97
Owsley	54.9%	110	58.1%	104	5.8%	6
Pendleton	95.9%	25	0.0%	111	-100.0%	-86
Perry	89.3%	60	87.1%	66	-2.5%	-6
Pike	89.5%	56	96.9%	23	8.2%	33
Powell	51.3%	115	99.5%	4	94.0%	111
Pulaski	93.0%	44	95.4%	36	2.6%	8

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	1 Tdap					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	82.9%	N/A	84.5%	N/A	1.9%	N/A
Robertson	100.0%	1	96.3%	27	-3.7%	-26
Rockcastle	98.2%	12	91.1%	45	-7.3%	-33
Rowan	49.2%	116	67.1%	96	36.4%	20
Russell	97.1%	19	89.9%	50	-7.5%	-31
Scott	71.8%	97	76.1%	88	5.9%	9
Shelby	68.2%	102	88.2%	61	29.2%	41
Simpson	96.7%	22	88.5%	59	-8.5%	-37
Spencer	100.0%	1	99.1%	7	-0.9%	-6
Taylor	86.3%	72	99.0%	9	14.6%	63
Todd	81.3%	80	55.1%	107	-32.3%	-27
Trigg	94.2%	35	86.1%	70	-8.6%	-35
Trimble	90.7%	49	0.0%	111	-100.0%	-62
Union	95.2%	31	100.0%	1	5.0%	30
Warren	69.4%	100	64.5%	99	-7.1%	1
Washington	88.2%	65	84.9%	73	-3.7%	-8
Wayne	99.2%	8	99.1%	8	-0.1%	0
Webster	47.6%	117	75.3%	91	58.1%	26
Whitley	68.1%	103	90.3%	47	32.5%	56
Wolfe	80.0%	84	90.0%	48	12.5%	36
Woodford	98.1%	13	98.1%	16	-0.1%	-3

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	98.0%	N/A	89.8%	N/A	-8.4%	N/A
Adair	98.4%	73	97.4%	12	-1.0%	61
Allen	58.0%	37	96.5%	21	66.4%	16
Anderson	98.8%	58	89.7%	66	-9.2%	-8
Ballard	100.0%	1	98.7%	4	-1.3%	-3
Barren	94.9%	111	93.2%	45	-1.8%	66
Bath	96.0%	105	63.8%	107	-33.6%	-2
Bell	96.4%	103	56.3%	109	-41.5%	-6
Boone	98.6%	62	92.8%	48	-5.9%	14
Bourbon	100.0%	1	89.5%	70	-10.5%	-69
Boyd	95.6%	107	41.9%	110	-56.1%	-3
Boyle	98.1%	80	87.0%	80	-11.3%	0
Bracken	98.4%	75	84.2%	85	-14.4%	-10
Breathitt	96.9%	95	96.6%	20	-0.4%	75
Breckinridge	98.9%	53	96.0%	27	-3.0%	26
Bullitt	98.4%	71	91.6%	55	-6.9%	16
Butler	98.8%	55	0.0%	111	-100.0%	-56
Caldwell	98.5%	66	92.3%	52	-6.3%	14
Calloway	98.4%	72	96.9%	16	-1.6%	56
Campbell	99.4%	41	96.3%	23	-3.1%	18
Carlisle	98.2%	77	84.9%	83	-13.6%	-6

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	98.0%	N/A	89.8%	N/A	-8.4%	N/A
Carroll	99.3%	45	83.1%	88	-16.3%	-43
Carter	99.7%	32	94.2%	38	-5.6%	-6
Casey	97.0%	94	86.8%	81	-10.5%	13
Christian	97.3%	90	91.2%	56	-6.3%	34
Clark	96.7%	99	93.8%	42	-3.1%	57
Clay	98.2%	77	96.7%	18	-1.5%	59
Clinton	100.0%	1	87.6%	77	-12.4%	-76
Crittenden	99.0%	48	87.5%	78	-11.7%	-30
Cumberland	100.0%	1	0.0%	111	-100.0%	-110
Daviess	99.0%	51	88.9%	72	-10.2%	-21
Edmonson	99.3%	44	87.2%	79	-12.2%	-35
Elliott	100.0%	1	0.0%	111	-100.0%	-110
Estill	98.4%	73	88.4%	74	-10.1%	-1
Fayette	98.8%	56	90.8%	59	-8.1%	-3
Fleming	100.0%	1	96.2%	25	-3.9%	-24
Floyd	99.6%	34	96.0%	28	-3.6%	6
Franklin	87.4%	119	71.2%	98	-18.6%	21
Fulton	97.0%	93	100.0%	1	3.1%	92
Gallatin	98.4%	70	90.2%	64	-8.3%	6
Garrard	95.6%	107	83.2%	87	-13.0%	20

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	98.0%	N/A	89.8%	N/A	-8.4%	N/A
Grant	99.4%	39	93.1%	46	-6.3%	-7
Graves	96.0%	106	96.0%	28	0.0%	78
Grayson	100.0%	1	64.7%	105	-35.3%	-104
Green	100.0%	1	90.4%	63	-9.6%	-62
Greenup	98.6%	65	89.8%	65	-8.9%	0
Hancock	100.0%	1	0.0%	111	-100.0%	-110
Hardin	94.7%	112	93.8%	41	-1.0%	71
Harlan	86.1%	120	68.0%	100	-21.0%	20
Harrison	97.3%	89	0.0%	111	-100.0%	-22
Hart	97.8%	83	94.9%	33	-2.9%	50
Henderson	99.5%	36	93.3%	44	-6.3%	-8
Henry	100.0%	1	90.9%	57	-9.1%	-56
Hickman	100.0%	1	96.8%	17	-3.2%	-16
Hopkins	99.8%	30	97.7%	10	-2.1%	20
Jackson	100.0%	1	89.6%	68	-10.4%	-67
Jefferson	98.0%	82	94.0%	40	-4.1%	42
Jessamine	99.0%	52	0.0%	111	-100.0%	-59
Johnson	95.1%	110	90.6%	61	-4.7%	49
Kenton	99.0%	49	94.9%	34	-4.2%	15
Knott	99.4%	38	66.1%	104	-33.5%	-66

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	98.0%	N/A	89.8%	N/A	-8.4%	N/A
Knox	96.8%	98	68.1%	99	-29.6%	-1
LaRue	99.4%	43	97.4%	13	-2.0%	30
Laurel	97.5%	85	83.0%	89	-14.8%	-4
Lawrence	98.1%	79	90.6%	62	-7.7%	17
Lee	89.6%	118	77.3%	92	-13.8%	26
Leslie	98.3%	76	67.4%	102	-31.5%	-26
Letcher	98.6%	64	92.4%	50	-6.3%	14
Lewis	100.0%	1	89.7%	67	-10.3%	-66
Lincoln	100.0%	1	95.0%	32	-5.0%	-31
Livingston	97.5%	86	60.4%	108	-38.1%	-22
Logan	96.8%	97	92.4%	51	-4.5%	46
Lyon	98.5%	68	91.8%	54	-6.8%	14
Madison	98.6%	63	96.6%	19	-2.0%	44
Magoffin	96.8%	96	76.3%	95	-21.2%	1
Marion	97.7%	84	96.4%	22	-1.4%	62
Marshall	98.5%	66	94.0%	39	-4.6%	27
Martin	98.6%	61	90.7%	60	-8.0%	1
Mason	96.5%	102	67.3%	103	-30.2%	-1
McCracken	98.7%	59	88.6%	73	-10.2%	-14
McCreary	99.6%	35	94.4%	36	-5.2%	-1

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

County	2 Varicella					
	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	98.0%	N/A	89.8%	N/A	-8.4%	N/A
McLean	99.2%	46	98.2%	6	-1.0%	40
Meade	99.7%	31	97.6%	11	-2.1%	20
Menifee	100.0%	1	95.3%	31	-4.7%	-30
Mercer	98.9%	54	95.7%	30	-3.3%	24
Metcalfe	100.0%	1	81.6%	91	-18.4%	-90
Monroe	98.5%	68	98.1%	8	-0.4%	60
Montgomery	98.0%	81	83.8%	86	-14.5%	-5
Morgan	93.8%	114	90.9%	57	-3.1%	57
Muhlenberg	99.2%	47	89.5%	69	-9.7%	-22
Nelson	93.1%	116	92.1%	53	-1.1%	63
Nicholas	100.0%	1	0.0%	111	-100.0%	-110
Ohio	96.5%	101	76.9%	93	-20.3%	8
Oldham	99.8%	29	96.9%	15	-2.9%	14
Owen	100.0%	1	0.0%	111	-100.0%	-110
Owsley	92.2%	117	64.5%	106	-30.0%	11
Pendleton	99.4%	40	0.0%	111	-100.0%	-71
Perry	95.4%	109	87.8%	76	-8.0%	33
Pike	99.4%	42	98.1%	7	-1.3%	35
Powell	97.5%	87	98.9%	3	1.5%	84
Pulaski	98.7%	60	94.8%	35	-3.9%	25

*Includes all schools who reported within a given county.

2016-2017 Annual School Immunization Survey--Sixth Grade Results

Change in Percent of Coverage Rate and County* Rankings, Comparison of Survey Results from 2015-2016 to 2016-2017

2 Varicella						
County	2015-2016 Coverage Rate	2015-2016 County Ranking	2016-2017 Coverage Rate	2016-2017 County Ranking	Change in Percent (%) From 2015-2016 to 2016-2017	Change in County Rankings From 2015-2016 to 2016-2017
Kentucky (Total)	98.0%	N/A	89.8%	N/A	-8.4%	N/A
Robertson	100.0%	1	96.3%	24	-3.7%	-23
Rockcastle	100.0%	1	92.6%	49	-7.4%	-48
Rowan	93.3%	114	84.5%	84	-9.4%	30
Russell	100.0%	1	89.4%	71	-10.6%	-70
Scott	97.4%	87	87.8%	75	-9.8%	12
Shelby	99.0%	49	93.7%	43	-5.4%	6
Simpson	100.0%	1	98.1%	9	-1.9%	-8
Spencer	100.0%	1	98.3%	5	-1.7%	-4
Taylor	99.7%	33	96.9%	14	-2.7%	19
Todd	100.0%	1	72.8%	96	-27.2%	-95
Trigg	100.0%	1	86.8%	81	-13.3%	-80
Trimble	96.3%	103	0.0%	111	-100.0%	-8
Union	98.8%	56	71.4%	97	-27.7%	-41
Warren	97.0%	91	76.9%	94	-20.8%	-3
Washington	96.5%	99	92.9%	47	-3.8%	52
Wayne	100.0%	1	99.1%	2	-0.9%	-1
Webster	94.6%	112	81.9%	90	-13.4%	22
Whitley	97.1%	90	96.1%	26	-1.0%	64
Wolfe	100.0%	1	68.0%	101	-32.0%	-100
Woodford	100.0%	1	94.2%	37	-5.8%	-36

*Includes all schools who reported within a given county.