



**Kentucky Public Health**  
Prevent. Promote. Protect.

# **Kentucky Annual School Immunization Survey Report for School Year 2018 - 2019**

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

**August 2019**

The Kentucky Annual School Immunization Survey Report was published by the Kentucky Immunization Branch, 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 from October 1, 2018 through December 31, 2018.

## Acknowledgments

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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, Section 2, “(1) Kindergartens and public and private elementary and secondary schools shall submit to the local health department in their area immunization results for (a) Kindergarten; (b) Seventh grade; (c) Eleventh grade; and (d) Twelfth grade” 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 declinations; (d) Medical exemptions; (e) Children who have received age-appropriate immunizations; and (f) Vaccine-specific exemptions.”

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## **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 of 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. Exempt (Med. Ex.): Number of children with a Commonwealth of Kentucky Certificate of Medical Exemption on file at the school
- Rel. Exempt (Rel. Ex.): Number of children with a Commonwealth of Kentucky Certificate of Religious Exemption on file at the school
- DTaP: Number of children with four or more doses of diphtheria, tetanus, and acellular pertussis vaccine
- HepB: Number of children with three or more doses of hepatitis B vaccine
- HepA: Number of children with two or more doses of hepatitis A vaccine
- MenACWY: Number of children with one or more doses of quadrivalent meningococcal vaccine for seventh grade or number of children with two or more doses of quadrivalent meningococcal vaccine for eleventh and twelfth grades
- MMR: Number of children with two dose of measles, mumps, rubella (MMR) vaccine; or one dose of MMR vaccine plus one dose of a measles containing vaccine; or one dose of MMR vaccine depending on a child's age
- Polio: Number of children with three or more doses of poliovirus vaccine
- Tdap/Td Booster: Number of seventh, eleventh and twelfth grade children with a tetanus, diphtheria, and acellular pertussis (Tdap) or tetanus diphtheria (Td) booster after ten years of age
- Varicella or VAR: Number of children with one or two doses of varicella vaccine depending on a child's age
- N/A (Not applicable): County did not submit surveys or specific number of doses or certificates for the survey year

## **Background**

The Kentucky Immunization Branch (KIB) 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, seventh, eleventh, and twelfth grade students. The purpose of this report is to disseminate the results of the survey for the 2018-2019 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 2018-2019 (see Appendix A) were distributed to each local health department (LHD) by KIB in late August 2018 in electronic formats. LHDs distributed the survey materials to every public and private school with at least one kindergarten class or seventh, eleventh, and twelfth grade class. In 2018, 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. KIB 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 Hep A 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 ten years of age), and
- One dose of quadrivalent meningococcal vaccine (MenACWY) for seventh grade and two doses for eleventh and twelfth.

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.

GenLog 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, 2018. Each survey was reviewed by KIB 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 unresponsive 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, KIB field and central staff made site visits during the months of February and March 2019 to review charts and directly collect the data.

Any survey received after March 31, 2019, was not included in the analysis.

All survey data were entered into Microsoft Excel 2016, 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 Branch to identify successful measures of vaccination compliance for school aged children.

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

Kindergarten, by selected vaccines and doses:

- 95% or greater for four or more DTaP, three or more polio, three or more HepB, two MMR, and two varicella
- 85% or greater for two HepA

Seventh Grade, by selected vaccines and doses:

- 80% or greater for one Tdap and one MenACWY
- 95% or greater for three or more HepB and two MMR
- 90% or greater for two varicella
- 85% or greater for two HepA

Eleventh and Twelfth Grades, by selected vaccines and doses:

- 95% or greater for two MMR and three or more HepB
- 90% or greater for two varicella
- 85% or greater for two HepA
- 80% or greater for one Tdap and two MenACWY

## **Results**

Table one shows the number of children in 2018-2019 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 94.8% of kindergarteners, 97% of seventh graders, 95.9% of eleventh graders, and 96.3% of twelfth graders.

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 up-to-date prior to reporting. These factors could contribute to variations in reporting.

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, and nearly all of the vaccines assessed for seventh grade met the Healthy People 2020 target measures.

Despite the high reported rates, the state averages for all vaccines for children in kindergarten were still below the Healthy People (HP) 2020 Objectives<sup>1</sup> of 95% or greater for four or more DTaP, three or more polio, three or more HepB, two MMR, and two varicella.

Tables 2-5 provide highlights from each survey grade.

Table 1- Percentage of Certificates, Exemptions, and Vaccines by Age Group

Grade	# Child	# Cert.	Miss. Cert.	Med. Ex.	Rel. Ex.	4+ DTaP	3+ Polio	3+ HepB	2 MMR*	2 Varicella*	1 Tdap	1 or 2 MenACWY**	2 HepA
Kindergarten	# Child	52,397	1,696	139	655	51,689	51,726	51,331	51,343	50,981	N/A	N/A	46,581
	%	94.8%	3.1%	0.3%	1.2%	93.5%	93.6%	92.9%	92.9%	92.3%	N/A	N/A	84.3%
Seventh Grade	# Child	52,781	674	279	560	N/A	N/A	52,521	52,831	51,780	50,198	49,686	41,173
	%	97.0%	1.2%	0.5%	1.0%	N/A	N/A	96.5%	97.1%	95.2%	92.3%	91.3%	75.7%
Eleventh Grade	# Child	49,714	1,087	383	434	N/A	N/A	49,718	49,828	47,006	48,456	33,210	25,626
	%	95.9%	2.1%	0.7%	0.8%	N/A	N/A	95.9%	96.1%	90.7%	93.4%	64.0%	49.4%
Twelfth Grade	# Child	46,614	796	374	391	N/A	N/A	46,500	46,875	43,387	45,558	31,308	22,306
	%	96.3%	1.6%	0.8%	0.8%	N/A	N/A	96.1%	96.9%	89.7%	94.2%	64.7%	46.1%

\*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.

\*\*The number of MenACWY doses is dependent on a child's age. Children aged 16 or older are required to have 2 doses of the MenACWY vaccine.



## Table 2- Kindergarten

KIB assessed antigen-specific immunizations for 55,256 children in kindergarten.

### Highlights for Kindergarten Students

- 89.1% of counties reported >90.0% of certificates on file were current
- 5% of counties had >1.0% of students with a medical exemption
  - Crittenden County reported the largest percentage of children with medical exemptions (2%)
- 45.8% of counties had >1.0% of students with a religious exemption
  - Crittenden County reported the largest percentage of religious exemptions (5%)
- 5.8% of counties had >10.0% of students with no certificate on file
  - Wolfe County reported the largest percentage of no certificate on file (24.5%)
- 60% of counties reported 95.0% or greater of children receiving 4 or more DTaP
- 62.5% of counties reported 95.0% or greater of children receiving 3 or more Polio
- 59.1% of counties reported 95.0% or greater of children receiving 3 or more HepB
- 58% of counties reported 95.0% or greater of children receiving 2 or more MMR
- 51.6% of counties reported 95.0% or greater of children receiving 2 or more varicella
- 61.6% of counties reported 85.0% or greater of children receiving 2 HepA
- 40.8% of counties met the Healthy People 2020 objectives for each antigen (95% or greater for DTaP, polio, HepB, MMR, and varicella, and 85% or greater for HepA)

The following 48 counties met the Healthy People 2020 objectives of 95.0% or greater for each of the following vaccines: four or more DTaP, three or more polio, three or more HepB, two MMR, two varicella and 85% or greater for HepA in kindergarteners.

<b>Adair</b>	<b>Bullitt</b>	<b>Franklin</b>	<b>Hart</b>	<b>Monroe</b>	<b>Shelby</b>
<b>Allen</b>	<b>Caldwell</b>	<b>Fulton</b>	<b>Hickman</b>	<b>Montgomery</b>	<b>Simpson</b>
<b>Anderson</b>	<b>Calloway</b>	<b>Gallatin</b>	<b>Lee</b>	<b>Morgan</b>	<b>Spencer</b>
<b>Ballard</b>	<b>Campbell</b>	<b>Grant</b>	<b>Letcher</b>	<b>Oldham</b>	<b>Todd</b>
<b>Boone</b>	<b>Clinton</b>	<b>Grayson</b>	<b>Lyon</b>	<b>Owen</b>	<b>Trigg</b>
<b>Bourbon</b>	<b>Edmonson</b>	<b>Green</b>	<b>McLean</b>	<b>Pendleton</b>	<b>Trimble</b>
<b>Boyle</b>	<b>Fayette</b>	<b>Greenup</b>	<b>Meade</b>	<b>Pulaski</b>	<b>Wayne</b>
<b>Bracken</b>	<b>Fleming</b>	<b>Harrison</b>	<b>Menifee</b>	<b>Russell</b>	<b>Woodford</b>

**Table 3- Seventh Grade**

KIB assessed antigen-specific immunizations for 54,410 children in seventh grade.

**Highlights for Seventh Grade Students**

- 97.5% of all counties reported >90.0% of certificates on file were current
- 10.8% of counties had >1.0% of students with a medical exemption
  - Martin County reported the largest percentage of medical exemptions (11.6%)
- 33.3% of counties had >1.0% of students with a religious exemption
  - Clinton County reported the largest percentage of religious exemptions (5.5%)
- 0.8% of counties had >10.0% of students with no certificate on file
  - Magoffin County reported the largest percentage with no certificate (10.2%)
- 92.5% of counties reported 80.0% or greater of children receiving 1 Tdap/Td booster
- 93.3% of counties reported 80.0% or greater of children receiving 1 MenACWY
- 90.8% of counties reported 95.0% or greater of children receiving 3 or more HepB
- 96.6% of counties reported 95.0% or greater of children receiving 2 or more MMR
- 92.5% of counties reported 90.0% or greater of children receiving 2 or more varicella
- 36.6% of counties reported 85.0% or greater of children receiving 2 HepA
- 39.1% of counties met the Healthy People 2020 objectives for each antigen (80% or greater for Tdap/Td Booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR)

The following 41 counties met the Healthy People 2020 objectives for each antigen (80% or greater for Tdap/Td booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR) in seventh graders.

<b>Allen</b>	<b>Carlisle</b>	<b>Graves</b>	<b>Livingston</b>	<b>Pendleton</b>	<b>Woodford</b>
<b>Ballard</b>	<b>Christian</b>	<b>Green</b>	<b>Logan</b>	<b>Robertson</b>	
<b>Boone</b>	<b>Crittenden</b>	<b>Hancock</b>	<b>McLean</b>	<b>Simpson</b>	
<b>Bourbon</b>	<b>Edmonson</b>	<b>Hart</b>	<b>Meade</b>	<b>Spencer</b>	
<b>Breathitt</b>	<b>Elliott</b>	<b>Hickman</b>	<b>Menifee</b>	<b>Todd</b>	
<b>Breckinridge</b>	<b>Fleming</b>	<b>Hopkins</b>	<b>Metcalfe</b>	<b>Warren</b>	
<b>Calloway</b>	<b>Fulton</b>	<b>Kenton</b>	<b>Morgan</b>	<b>Wayne</b>	
<b>Campbell</b>	<b>Grant</b>	<b>Letcher</b>	<b>Owen</b>	<b>Whitley</b>	

#### Table 4- Eleventh Grade

KIB assessed antigen-specific immunizations for 51,854 children in eleventh grade.

##### Highlights for Eleventh Grade Students

- 95% of all counties reported >90.0% of certificates on file were current
- 20% of counties had >1.0% of students with a medical exemption
  - Bracken County reported the largest percentage of medical exemptions (13.2%)
- 30% of counties had >1.0% of students with a religious exemption
  - Jessamine County reported the largest percentage of religious exemptions (3.4%)
- 1.6% of counties had >10.0% of students with no certificate on file
  - Clark County reported the largest percentage with no certificate (14.5%)
- 92.5% of counties reported 80.0% or greater of children receiving 1 Tdap/Td booster
- 35% of counties reported 80.0% or greater of children receiving 1 MenACWY
- 82.5% of counties reported 95.0% or greater of children receiving 3 or more HepB
- 87.5% of counties reported 95.0% or greater of children receiving 2 or more MMR
- 73.3% of counties reported 90.0% or greater of children receiving 2 or more varicella
- 0.8% of counties reported 85.0% or greater of children receiving 2 HepA
- 0.8% of counties met the Healthy People 2020 objectives for each antigen (80% or greater for Tdap/Td booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR)

Only one county met the Healthy People 2020 objectives for each antigen (80% or greater for Tdap/Td booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR) in eleventh graders.

**Hickman**

### Table 5- Twelfth Grade

KIB assessed antigen-specific immunizations for 48,384 children in twelfth grade.

#### Highlights for Twelfth Grade Students

- 98% of all counties reported >90.0% of certificates on file were current
- 22.5% of counties had >1.0% of students with a medical exemption
  - Powell County reported the largest percentage of medical exemptions (9%)
- 32.5% of counties had >1.0% of students with a religious exemption
  - Carlisle County reported the largest percentage of religious exemptions (5.6%)
- 1.6% of counties had >10.0% of students with no certificate on file
  - Robertson County reported the largest percentage with no certificate (22.9%)
- 95.7% of counties reported 80.0% or greater of children receiving 1 Tdap/Td booster
- 33.3% of counties reported 80.0% or greater of children receiving 1 MenACWY
- 83.3% of counties reported 95.0% or greater of children receiving 3 or more HepB
- 87.5% of counties reported 95.0% or greater of children receiving 2 or more MMR
- 59.1% of counties reported 90.0% or greater of children receiving 2 or more varicella
- 0.8% of counties reported 85.0% or greater of children receiving 2 HepA
- 0.8% of counties met the Healthy People 2020 objectives for each antigen (80% or greater for Tdap/Td booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR)

Only one county met the Healthy People 2020 objectives for each antigen (80% or greater for Tdap/Td booster and MenACWY, 85% or greater for HepA, 90% or greater for varicella, and 95% or greater for HepB and MMR) in twelfth graders.

#### Ballard

## **Discussion**

An ongoing challenge for medical providers, health departments, 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 four or more DTaP, three or more polio, three or more HepB, and two 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. 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),”<sup>2</sup> 95% vaccination levels must be achieved.

The 2018-2019 school survey introduced numerous changes as a direct result of the revised 902 KAR 2:060 regulation in July of 2017. This revision included an addition of a complete two dose series of hepatitis A vaccine for school entry and a booster dose of meningococcal (MenACWY) vaccine at 16 years of age. Due to this revision, two new surveys were introduced for the 2018-2019 year (eleventh and twelfth), with eleventh grade being a required survey for the proceeding years. The sixth grade survey was replaced with the seventh grade survey so a more accurate coverage assessment could be captured for vaccines that are recommended for the 11-12 year age cohort.

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).”<sup>3</sup> Unless direct communication about the social benefits of 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. KIB 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, completion is not mandated by law. KIB staff used a weighted validation process whereby 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, KIB staff were used as data collectors for non-respondent schools to increase survey compliance, but only for the kindergarten class per CDC guidance.

## **Homeschooled Children**

The Kentucky Administrative Regulation (902 KAR 2:060) related to “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,” does not mandate immunization requirements for children in Kentucky who are homeschooled. KIB does not have a current method to assess vaccination coverage for homeschooled children. However, schools are instructed to include homeschooled children enrolled in public school activities in their total student population.

A2Z Home’s Cool estimated that approximately 19,250 children in Kentucky aged 5 through 17 years were taught at home during the 2018-2019 school year ([http://a2zhomeschooling.com/all\\_time\\_favorites/numbers\\_homeschooled\\_students/](http://a2zhomeschooling.com/all_time_favorites/numbers_homeschooled_students/)).

## **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, Kentucky Department for Public Health 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 (KYIR) 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."<sup>5</sup> In a two-year effort, the Cincinnati primary school system was able to increase immunization levels of school aged children from 60% to 91% by following a program based upon its legal authority to require immunizations.<sup>3</sup> "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]."<sup>5</sup> 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.<sup>4</sup>

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 safe from morbidity and mortality caused by vaccine-preventable diseases. KIB will continue to assess age-appropriate vaccines for children enrolled in school and childcare facilities to ensure they are current according to the state regulation (902 KAR 2:060) and the recommendations of the Advisory Committee on Immunization Practices (ACIP).



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# **APPENDIX A**

## **KENTUCKY ANNUAL SCHOOL IMMUNIZATION SURVEY REPORT 2018 – 2019**

### **Immunization Survey Tools**

<b>KINDERGARTEN</b>	<b>A-1</b>
<b>SEVENTH</b>	<b>A-2</b>
<b>ELEVENTH</b>	<b>A-3</b>
<b>TWELFTH</b>	<b>A-4</b>



# COMMONWEALTH OF KENTUCKY SCHOOL ANNUAL IMMUNIZATION SURVEY

## Kindergarten (902 KAR 2:055)

Please complete this form in its entirety

1. Name of person completing this form: \_\_\_\_\_

Credentials \_\_\_\_\_ Date \_\_ / \_\_ / \_\_  
(RN, LPN, APRN, Other, etc.)

### 2. Demographic Information

3. Type of Facility  
(Place a check in the appropriate box)

County: \_\_\_\_\_

Public

School/Facility Name: \_\_\_\_\_

Private

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: (\_\_\_\_) \_\_\_\_\_

E-mail Address: \_\_\_\_\_

4. Total Number of Children Enrolled

[not including children receiving services at your school]

5. Total Number of Homeschool Children Enrolled in School Activities

### 6. Immunization Certificate and Exemptions

- A. How many children have a **Current or Provisional** immunization certificate on file?
- B. How many children have an **Expired** immunization certificate on file?
- C. How many children are exempt from all or some immunizations for **medical** reasons?
- D. How many children are exempt from all or some immunizations for **religious** reasons?
- E. How many children **do not** have any immunization certificate on file?

# Certificates

### 7. Vaccine Dose Summary

Vaccine	Doses	# Children
DTaP/DTP/DT	4 or more	
Polio	3 or more	
Hepatitis B	3 or more	
MMR	2	
Varicella	2	
Number of Children that have had chickenpox and 0 doses of Varicella		
Number of Children that have had chickenpox and 1 dose of Varicella		
Hepatitis A	2	



# COMMONWEALTH OF KENTUCKY SCHOOL ANNUAL IMMUNIZATION SURVEY

## Seventh (902 KAR 2:055)

Please complete this form in its entirety

1. Name of person completing this form: \_\_\_\_\_ Credentials \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
(RN, LPN, APRN, Other, etc.)

### 2. Demographic Information

### 3. Type of Facility

(Place a check in the appropriate box)

County: \_\_\_\_\_

School/Facility Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: ( ) \_\_\_\_\_

E-mail Address: \_\_\_\_\_

Public

Private

### 4. Total Number of Children Enrolled

[not including children receiving services at your school]

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### 5. Total Number of Homeschool Children Enrolled in School Activities

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### 6. Immunization Certificate and Exemptions

- A. How many children have a **Current or Provisional** immunization certificate on file?
- B. How many children have an **Expired** immunization certificate on file?
- C. How many children are exempt from all or some immunizations for **medical** reasons?
- D. How many children are exempt from all or some immunizations for **religious** reasons?
- E. How many children **do not** have any immunization certificate on file?

# Certificates

### 7. Vaccine Dose Summary

Vaccine	Doses	# Children
Tdap	1	
Meningococcal (MenACWY)	1	
Hepatitis B	Complete Series*	
MMR	2	
Varicella	2	
Number of children that have had chickenpox and 0 doses of Varicella		
Number of children that have had chickenpox and 1 dose of Varicella		
Hepatitis A	2	

\*Count any child who has received the 3-dose Infant Series **OR** the 2-dose Adolescent/Adult catch-up series as having a **COMPLETE** Hepatitis B Series.



# COMMONWEALTH OF KENTUCKY SCHOOL ANNUAL IMMUNIZATION SURVEY

## Eleventh

(902 KAR 2:055)

Please complete this form in its entirety

1. Name of person completing this form: \_\_\_\_\_ Credentials \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_  
(RN, LPN, APRN, Other, etc.)

### 2. Demographic Information

County: \_\_\_\_\_

School/Facility Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: (\_\_\_\_) \_\_\_\_\_

E-mail Address: \_\_\_\_\_

### 3. Type of Facility

(Place a check in the appropriate box)

Public

Private

### 4. Total Number of Children Enrolled

--

[not including children receiving services at your school]

### 5. Total Number of Homeschool Children Enrolled in School Activities

--

### 6. Immunization Certificate and Exemptions

- A. How many children have a **Current or Provisional** immunization certificate on file?
- B. How many children have an **Expired** immunization certificate on file?
- C. How many children are exempt from all or some immunizations for **medical** reasons?
- D. How many children are exempt from all or some immunizations for **religious** reasons?
- E. How many children **do not** have any immunization certificate on file?

# Certificates

### 7. Vaccine Dose Summary

Vaccine	Doses	# Children
<b>Tdap</b>	1	
<b>Meningococcal (MenACWY)</b>	Complete Series*	
<b>Hepatitis B</b>	Complete Series**	
<b>MMR</b>	2	
<b>Varicella</b>	2	
Number of children that have had chickenpox and 0 doses of Varicella		
Number of children that have had chickenpox and 1 dose of Varicella		
<b>Hepatitis A</b>	2	

\*Count any child who has received the MenACWY 2-dose series **OR** one dose at or after 16 years of age as having a **COMPLETE** Meningococcal series.

\*\*Count any child who has received the 3-dose Infant Series **OR** the 2-dose Adolescent/Adult catch-up series as having a **COMPLETE** Hepatitis B Series.



# COMMONWEALTH OF KENTUCKY SCHOOL ANNUAL IMMUNIZATION SURVEY

## Twelfth

(902 KAR 2:055)

Please complete this form in its entirety

1. Name of person completing this form: \_\_\_\_\_ Credentials \_\_\_\_\_ Date \_\_\_\_ / \_\_\_\_ / \_\_\_\_  
(RN, LPN, APRN, Other, etc.)

### 2. Demographic Information

County: \_\_\_\_\_

School/Facility Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone Number: (\_\_\_\_) \_\_\_\_\_

E-mail Address: \_\_\_\_\_

### 3. Type of Facility

(Place a check in the appropriate box)

Public

Private

### 4. Total Number of Children Enrolled

[not including children receiving services at your school]

--

### 5. Total Number of Homeschool Children Enrolled in School Activities

--

### 6. Immunization Certificate and Exemptions

- A. How many children have a **Current or Provisional** immunization certificate on file?
- B. How many children have an **Expired** immunization certificate on file?
- C. How many children are exempt from all or some immunizations for **medical** reasons?
- D. How many children are exempt from all or some immunizations for **religious** reasons?
- E. How many children **do not** have any immunization certificate on file?

# Certificates

### 7. Vaccine Dose Summary

Vaccine	Doses	# Children
Tdap	1	
Meningococcal (MenACWY)	Complete Series*	
Hepatitis B	Complete Series**	
MMR	2	
Varicella	2	
Number of children that have had chickenpox and 0 doses of Varicella		
Number of children that have had chickenpox and 1 dose of Varicella		
Hepatitis A	2	

\*Count any child who has received the MenACWY 2-dose series **OR** one dose at or after 16 years of age as having a **COMPLETE** Meningococcal series.

\*\*Count any child who has received the 3-dose Infant Series **OR** the 2-dose Adolescent/Adult catch-up series as having a **COMPLETE** Hepatitis B Series.

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# **APPENDIX B**

## **KENTUCKY ANNUAL SCHOOL IMMUNIZATION SURVEY REPORT 2018 – 2019**

### **County Profiles about Immunization Coverage in All Schools**

<b>KINDERGARTEN</b>	<b>B-1</b>
<b>SEVENTH</b>	<b>B-2</b>
<b>ELEVENTH</b>	<b>B-3</b>
<b>TWELFTH</b>	<b>B-4</b>

## County Profiles about Immunization Coverage in All Schools

Each age-specific report for Kindergarten (Appendix B-1), Seventh (Appendix B-2), Eleventh (B-3), or Twelfth (B-4) 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 Branch to identify schools that have been successful with vaccination compliance for school aged children in the survey year.

If any of the age-appropriate HP 2020 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, 2018-2019 — County Profiles**  
**Immunization Coverage in Kindergarten Grade for All Schools**

County	# of Students	Current Cert.	Med. Exempt	Relig. Exempt	Missing Cert.	4+ DtaP	3+ Polio	3+ HepB	2 MMR	2 Varicella	2 HepA
<b>Kentucky (Total)</b>	<b>55,256</b>	<b>52,397</b> 94.8%	<b>139</b> 0.3%	<b>655</b> 1.2%	<b>1,696</b> 3.1%	<b>51,689</b> 93.5%	<b>51,726</b> 93.6%	<b>51,331</b> 92.9%	<b>51,343</b> 92.9%	<b>50,981</b> 92.3%	<b>46,581</b> 84.3%
Adair	191	186 97.4%	2 1.0%	3 1.6%	0 0.0%	184 96.3%	186 97.4%	188 98.4%	187 97.9%	186 97.4%	184 96.3%
Allen	261	251 96.2%	1 0.4%	4 1.5%	5 1.9%	248 95.0%	249 95.4%	248 95.0%	246 94.3%	246 94.3%	230 88.1%
Anderson	293	290 99.0%	0 0.0%	3 1.0%	0 0.0%	287 98.0%	288 98.3%	290 99.0%	286 97.6%	285 97.3%	269 91.8%
Ballard	88	88 100.0%	0 0.0%	0 0.0%	0 0.0%	88 100.0%	88 100.0%	88 100.0%	88 100.0%	88 100.0%	87 98.9%
Barren	613	596 97.2%	4 0.7%	4 0.7%	9 1.5%	594 96.9%	595 97.1%	583 95.1%	585 95.4%	586 95.6%	520 84.8%
Bath	160	147 91.9%	0 0.0%	0 0.0%	13 8.1%	142 88.8%	144 90.0%	142 88.8%	129 80.6%	133 83.1%	115 71.9%
Bell	322	312 96.9%	1 0.3%	4 1.2%	5 1.6%	289 89.8%	292 90.7%	300 93.2%	290 90.1%	285 88.5%	142 44.1%
Boone	1,753	1,708 97.4%	7 0.4%	38 2.2%	0 0.0%	1,701 97.0%	1,711 97.6%	1,709 97.5%	1,694 96.6%	1,691 96.5%	1,638 93.4%
Bourbon	252	248 98.4%	0 0.0%	3 1.2%	1 0.4%	247 98.0%	248 98.4%	249 98.8%	247 98.0%	246 97.6%	232 92.1%
Boyd	551	520 94.4%	1 0.2%	6 1.1%	24 4.4%	502 91.1%	512 92.9%	501 90.9%	509 92.4%	505 91.7%	419 76.0%
Boyle	363	356 98.1%	1 0.3%	6 1.7%	0 0.0%	354 97.5%	355 97.8%	359 98.9%	355 97.8%	355 97.8%	309 85.1%
Bracken	132	128 97.0%	0 0.0%	0 0.0%	4 3.0%	128 97.0%	128 97.0%	126 95.5%	126 95.5%	126 95.5%	124 93.9%
Breathitt	173	168 97.1%	0 0.0%	0 0.0%	5 2.9%	162 93.6%	165 95.4%	163 94.2%	162 93.6%	160 92.5%	149 86.1%
Breckinridge	218	201 92.2%	0 0.0%	4 1.8%	13 6.0%	195 89.4%	197 90.4%	197 90.4%	195 89.4%	194 89.0%	185 84.9%
Bullitt	1,003	988 98.5%	1 0.1%	11 1.1%	3 0.3%	987 98.4%	989 98.6%	986 98.3%	973 97.0%	979 97.6%	945 94.2%
Butler	175	170 97.1%	0 0.0%	1 0.6%	4 2.3%	166 94.9%	168 96.0%	167 95.4%	165 94.3%	165 94.3%	155 88.6%
Caldwell	133	133 100.0%	0 0.0%	0 0.0%	0 0.0%	131 98.5%	133 100.0%	133 100.0%	133 100.0%	132 99.2%	127 95.5%
Calloway	354	339 95.8%	0 0.0%	14 4.0%	1 0.3%	338 95.5%	340 96.0%	340 96.0%	341 96.3%	338 95.5%	324 91.5%
Campbell	968	958 99.0%	1 0.1%	6 0.6%	3 0.3%	952 98.3%	952 98.3%	949 98.0%	948 97.9%	944 97.5%	902 93.2%
Carlisle	67	65 97.0%	1 1.5%	1 1.5%	0 0.0%	62 92.5%	60 89.6%	63 94.0%	58 86.6%	59 88.1%	46 68.7%

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County	# of Students	Current Cert.	Med. Exempt	Relig. Exempt	Missing Cert.	4+ DtaP	3+ Polio	3+ HepB	2 MMR	2 Varicella	2 HepA
<b>Kentucky (Total)</b>	<b>55,256</b>	<b>52,397</b> 94.8%	<b>139</b> 0.3%	<b>655</b> 1.2%	<b>1,696</b> 3.1%	<b>51,689</b> 93.5%	<b>51,726</b> 93.6%	<b>51,331</b> 92.9%	<b>51,343</b> 92.9%	<b>50,981</b> 92.3%	<b>46,581</b> 84.3%
Carroll	151	143 94.7%	0 0.0%	0 0.0%	8 5.3%	144 95.4%	146 96.7%	144 95.4%	142 94.0%	143 94.7%	139 92.1%
Carter	340	327 96.2%	1 0.3%	3 0.9%	9 2.6%	326 95.9%	325 95.6%	322 94.7%	322 94.7%	321 94.4%	253 74.4%
Casey	197	193 98.0%	0 0.0%	4 2.0%	0 0.0%	193 98.0%	193 98.0%	192 97.5%	192 97.5%	191 97.0%	165 83.8%
Christian	740	709 95.8%	2 0.3%	12 1.6%	17 2.3%	692 93.5%	699 94.5%	683 92.3%	698 94.3%	697 94.2%	663 89.6%
Clark	416	400 96.2%	1 0.2%	5 1.2%	10 2.4%	397 95.4%	395 95.0%	387 93.0%	390 93.8%	388 93.3%	244 58.7%
Clay	466	451 96.8%	0 0.0%	1 0.2%	14 3.0%	445 95.5%	444 95.3%	444 95.3%	438 94.0%	444 95.3%	300 64.4%
Clinton	124	122 98.4%	0 0.0%	2 1.6%	0 0.0%	120 96.8%	121 97.6%	121 97.6%	119 96.0%	119 96.0%	108 87.1%
Crittenden	101	91 90.1%	2 2.0%	5 5.0%	3 3.0%	93 92.1%	92 91.1%	92 91.1%	91 90.1%	88 87.1%	87 86.1%
Cumberland	81	69 85.2%	0 0.0%	4 4.9%	8 9.9%	69 85.2%	68 84.0%	64 79.0%	68 84.0%	67 82.7%	60 74.1%
Daviess	1,358	1,303 95.9%	2 0.1%	10 0.8%	43 3.2%	1,277 94.0%	1,277 94.0%	1,257 92.6%	1,245 91.7%	1,170 86.2%	1,120 82.5%
Edmonson	145	145 100.0%	0 0.0%	0 0.0%	0 0.0%	143 98.6%	144 99.3%	145 100.0%	142 97.9%	143 98.6%	138 95.2%
Elliott	74	72 97.3%	1 1.4%	1 1.4%	0 0.0%	72 97.3%	72 97.3%	71 95.9%	70 94.6%	71 95.9%	60 81.1%
Estill	181	172 95.0%	0 0.0%	0 0.0%	9 5.0%	171 94.5%	171 94.5%	171 94.5%	170 93.9%	151 83.4%	138 76.2%
Fayette	3,690	3,599 97.5%	12 0.3%	60 1.6%	19 0.5%	3,572 96.8%	3,583 97.1%	3,571 96.8%	3,526 95.6%	3,506 95.0%	3,317 89.9%
Fleming	173	171 98.8%	0 0.0%	1 0.6%	1 0.6%	170 98.3%	171 98.8%	170 98.3%	171 98.8%	171 98.8%	162 93.6%
Floyd	441	431 97.7%	1 0.2%	6 1.4%	3 0.7%	417 94.6%	423 95.9%	426 96.6%	421 95.5%	426 96.6%	378 85.7%
Franklin	609	565 92.8%	1 0.2%	4 0.7%	39 6.4%	585 96.1%	586 96.2%	585 96.1%	585 96.1%	584 95.9%	553 90.8%
Fulton	69	68 98.6%	0 0.0%	1 1.4%	0 0.0%	69 100.0%	69 100.0%	69 100.0%	69 100.0%	69 100.0%	67 97.1%
Gallatin	111	111 100.0%	0 0.0%	0 0.0%	0 0.0%	109 98.2%	111 100.0%	111 100.0%	111 100.0%	111 100.0%	107 96.4%
Garrard	198	164 82.8%	0 0.0%	5 2.5%	29 14.6%	160 80.8%	171 86.4%	170 85.9%	163 82.3%	164 82.8%	143 72.2%

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<b>Kentucky (Total)</b>	<b>55,256</b>	<b>52,397</b> 94.8%	<b>139</b> 0.3%	<b>655</b> 1.2%	<b>1,696</b> 3.1%	<b>51,689</b> 93.5%	<b>51,726</b> 93.6%	<b>51,331</b> 92.9%	<b>51,343</b> 92.9%	<b>50,981</b> 92.3%	<b>46,581</b> 84.3%
Grant	281	278 98.9%	0 0.0%	1 0.4%	2 0.7%	276 98.2%	277 98.6%	277 98.6%	275 97.9%	276 98.2%	264 94.0%
Graves	490	467 95.3%	3 0.6%	16 3.3%	4 0.8%	463 94.5%	458 93.5%	454 92.7%	458 93.5%	456 93.1%	433 88.4%
Grayson	314	310 98.7%	0 0.0%	3 1.0%	1 0.3%	309 98.4%	308 98.1%	309 98.4%	302 96.2%	306 97.5%	303 96.5%
Green	134	134 100.0%	0 0.0%	0 0.0%	0 0.0%	132 98.5%	134 100.0%	133 99.3%	133 99.3%	133 99.3%	129 96.3%
Greenup	443	434 98.0%	1 0.2%	3 0.7%	5 1.1%	430 97.1%	432 97.5%	434 98.0%	432 97.5%	426 96.2%	411 92.8%
Hancock	108	103 95.4%	0 0.0%	2 1.9%	3 2.8%	103 95.4%	103 95.4%	101 93.5%	102 94.4%	102 94.4%	96 88.9%
Hardin	1,247	1,111 89.1%	2 0.2%	9 0.7%	125 10.0%	1,102 88.4%	1,098 88.1%	1,097 88.0%	1,082 86.8%	1,079 86.5%	977 78.3%
Harlan	341	282 82.7%	1 0.3%	2 0.6%	56 16.4%	276 80.9%	279 81.8%	282 82.7%	270 79.2%	271 79.5%	235 68.9%
Harrison	245	242 98.8%	0 0.0%	2 0.8%	1 0.4%	239 97.6%	242 98.8%	242 98.8%	241 98.4%	241 98.4%	223 91.0%
Hart	181	179 98.9%	0 0.0%	1 0.6%	1 0.6%	175 96.7%	176 97.2%	179 98.9%	174 96.1%	176 97.2%	169 93.4%
Henderson	558	489 87.6%	3 0.5%	5 0.9%	17 3.0%	530 95.0%	532 95.3%	526 94.3%	523 93.7%	525 94.1%	463 83.0%
Henry	207	200 96.6%	1 0.5%	4 1.9%	2 1.0%	200 96.6%	198 95.7%	198 95.7%	196 94.7%	198 95.7%	173 83.6%
Hickman	43	43 100.0%	0 0.0%	0 0.0%	0 0.0%	43 100.0%	43 100.0%	43 100.0%	43 100.0%	43 100.0%	43 100.0%
Hopkins	540	523 96.9%	0 0.0%	18 3.3%	1 0.2%	522 96.7%	525 97.2%	525 97.2%	514 95.2%	511 94.6%	509 94.3%
Jackson	622	613 98.6%	6 1.0%	1 0.2%	2 0.3%	621 99.8%	563 90.5%	621 99.8%	620 99.7%	616 99.0%	594 95.5%
Jefferson	8,903	8,213 92.2%	26 0.3%	90 1.0%	539 6.1%	8,173 91.8%	8,198 92.1%	8,104 91.0%	8,072 90.7%	8,016 90.0%	7,222 81.1%
Jessamine	625	598 95.7%	4 0.6%	19 3.0%	4 0.6%	576 92.2%	568 90.9%	587 93.9%	587 93.9%	579 92.6%	515 82.4%
Johnson	292	272 93.2%	0 0.0%	0 0.0%	20 6.8%	271 92.8%	273 93.5%	274 93.8%	271 92.8%	270 92.5%	254 87.0%
Kenton	2,336	2,274 97.3%	6 0.3%	33 1.4%	22 0.9%	2,179 93.3%	2,192 93.8%	2,176 93.2%	2,170 92.9%	2,113 90.5%	2,086 89.3%
Knott	199	189 95.0%	0 0.0%	1 0.5%	9 4.5%	180 90.5%	184 92.5%	172 86.4%	182 91.5%	183 92.0%	99 49.7%

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Knox	425	343 80.7%	1 0.2%	0 0.0%	81 19.1%	321 75.5%	321 75.5%	317 74.6%	326 76.7%	316 74.4%	176 41.4%
LaRue	198	192 97.0%	0 0.0%	2 1.0%	4 2.0%	189 95.5%	190 96.0%	189 95.5%	188 94.9%	187 94.4%	174 87.9%
Laurel	745	718 96.4%	1 0.1%	13 1.7%	17 2.3%	707 94.9%	717 96.2%	629 84.4%	711 95.4%	708 95.0%	554 74.4%
Lawrence	184	111 60.3%	0 0.0%	2 1.1%	1 0.5%	108 58.7%	109 59.2%	109 59.2%	101 54.9%	101 54.9%	88 47.8%
Lee	75	73 97.3%	0 0.0%	2 2.7%	0 0.0%	74 98.7%	74 98.7%	74 98.7%	73 97.3%	74 98.7%	65 86.7%
Leslie	124	121 97.6%	1 0.8%	1 0.8%	1 0.8%	118 95.2%	119 96.0%	113 91.1%	118 95.2%	115 92.7%	58 46.8%
Letcher	251	247 98.4%	0 0.0%	4 1.6%	0 0.0%	242 96.4%	246 98.0%	247 98.4%	244 97.2%	245 97.6%	231 92.0%
Lewis	170	169 99.4%	1 0.6%	0 0.0%	0 0.0%	163 95.9%	164 96.5%	160 94.1%	165 97.1%	162 95.3%	154 90.6%
Lincoln	307	299 97.4%	2 0.7%	0 0.0%	6 2.0%	273 88.9%	273 88.9%	271 88.3%	257 83.7%	259 84.4%	211 68.7%
Livingston	90	75 83.3%	0 0.0%	1 1.1%	14 15.6%	83 92.2%	78 86.7%	78 86.7%	78 86.7%	77 85.6%	77 85.6%
Logan	350	340 97.1%	0 0.0%	3 0.9%	7 2.0%	328 93.7%	334 95.4%	336 96.0%	333 95.1%	332 94.9%	316 90.3%
Lyon	73	72 98.6%	0 0.0%	1 1.4%	0 0.0%	71 97.3%	71 97.3%	71 97.3%	71 97.3%	71 97.3%	68 93.2%
Madison	1163	1143 98.3%	2 0.2%	11 0.9%	7 0.6%	1136 97.7%	1140 98.0%	1140 98.0%	1129 97.1%	1130 97.2%	864 74.3%
Magoffin	167	145 86.8%	0 0.0%	1 0.6%	21 12.6%	145 86.8%	145 86.8%	144 86.2%	143 85.6%	141 84.4%	117 70.1%
Marion	228	197 86.4%	0 0.0%	0 0.0%	31 13.6%	199 87.3%	199 87.3%	194 85.1%	191 83.8%	194 85.1%	172 75.4%
Marshall	368	346 94.0%	0 0.0%	6 1.6%	16 4.3%	352 95.7%	350 95.1%	354 96.2%	347 94.3%	344 93.5%	342 92.9%
Martin	126	125 99.2%	1 0.8%	0 0.0%	0 0.0%	123 97.6%	125 99.2%	126 100.0%	122 96.8%	125 99.2%	73 57.9%
Mason	228	220 96.5%	0 0.0%	7 3.1%	1 0.4%	211 92.5%	216 94.7%	211 92.5%	205 89.9%	198 86.8%	192 84.2%
McCracken	859	799 93.0%	3 0.3%	20 2.3%	37 4.3%	806 93.8%	800 93.1%	684 79.6%	772 89.9%	763 88.8%	757 88.1%
McCreary	235	225 95.7%	3 1.3%	1 0.4%	6 2.6%	223 94.9%	228 97.0%	227 96.6%	216 91.9%	214 91.1%	209 88.9%

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<b>Kentucky (Total)</b>	<b>55,256</b>	<b>52,397</b> 94.8%	<b>139</b> 0.3%	<b>655</b> 1.2%	<b>1,696</b> 3.1%	<b>51,689</b> 93.5%	<b>51,726</b> 93.6%	<b>51,331</b> 92.9%	<b>51,343</b> 92.9%	<b>50,981</b> 92.3%	<b>46,581</b> 84.3%
McLean	100	99 99.0%	0 0.0%	2 2.0%	0 0.0%	95 95.0%	97 97.0%	97 97.0%	98 98.0%	97 97.0%	90 90.0%
Meade	359	354 98.6%	0 0.0%	5 1.4%	0 0.0%	351 97.8%	351 97.8%	350 97.5%	349 97.2%	347 96.7%	336 93.6%
Menifee	85	83 97.6%	1 1.2%	1 1.2%	0 0.0%	83 97.6%	83 97.6%	83 97.6%	83 97.6%	83 97.6%	78 91.8%
Mercer	224	221 98.7%	0 0.0%	4 1.8%	2 0.9%	216 96.4%	212 94.6%	215 96.0%	217 96.9%	215 96.0%	185 82.6%
Metcalfe	114	107 93.9%	0 0.0%	1 0.9%	6 5.3%	107 93.9%	107 93.9%	107 93.9%	107 93.9%	107 93.9%	96 84.2%
Monroe	146	144 98.6%	1 0.7%	1 0.7%	0 0.0%	145 99.3%	145 99.3%	144 98.6%	142 97.3%	142 97.3%	142 97.3%
Montgomery	327	320 97.9%	0 0.0%	1 0.3%	6 1.8%	320 97.9%	324 99.1%	311 95.1%	320 97.9%	320 97.9%	297 90.8%
Morgan	138	138 100.0%	0 0.0%	0 0.0%	0 0.0%	136 98.6%	136 98.6%	138 100.0%	137 99.3%	137 99.3%	126 91.3%
Muhlenberg	338	326 96.4%	0 0.0%	2 0.6%	10 3.0%	297 87.9%	300 88.8%	301 89.1%	307 90.8%	298 88.2%	280 82.8%
Nelson	615	566 92.0%	2 0.3%	3 0.5%	44 7.2%	577 93.8%	579 94.1%	580 94.3%	568 92.4%	567 92.2%	522 84.9%
Nicholas	94	86 91.5%	1 1.1%	1 1.1%	6 6.4%	93 98.9%	92 97.9%	91 96.8%	92 97.9%	92 97.9%	74 78.7%
Ohio	351	308 87.7%	1 0.3%	5 1.4%	37 10.5%	300 85.5%	306 87.2%	307 87.5%	297 84.6%	294 83.8%	237 67.5%
Oldham	920	907 98.6%	1 0.1%	14 1.5%	0 0.0%	904 98.3%	907 98.6%	899 97.7%	900 97.8%	898 97.6%	866 94.1%
Owen	128	128 100.0%	0 0.0%	2 1.6%	0 0.0%	124 96.9%	125 97.7%	122 95.3%	124 96.9%	124 96.9%	117 91.4%
Owsley	39	37 94.9%	0 0.0%	0 0.0%	2 1.6%	35 89.7%	34 87.2%	37 94.9%	35 89.7%	35 89.7%	30 76.9%
Pendleton	171	170 99.4%	0 0.0%	1 0.6%	0 0.0%	167 97.7%	165 96.5%	170 99.4%	168 98.2%	168 98.2%	166 97.1%
Perry	367	347 94.6%	0 0.0%	0 0.0%	20 5.4%	329 89.6%	332 90.5%	329 89.6%	333 90.7%	331 90.2%	243 66.2%
Pike	707	700 99.0%	3 0.4%	3 0.4%	1 0.1%	697 98.6%	659 93.2%	685 96.9%	694 98.2%	696 98.4%	647 91.5%
Powell	149	145 97.3%	0 0.0%	1 0.7%	3 2.0%	140 94.0%	139 93.3%	140 94.0%	136 91.3%	138 92.6%	131 87.9%
Pulaski	800	784 98.0%	2 0.3%	14 1.8%	0 0.0%	782 97.8%	786 98.3%	786 98.3%	784 98.0%	781 97.6%	725 90.6%

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Robertson	29	29 100.0%	0 0.0%	0 0.0%	0 0.0%	29 100.0%	29 100.0%	29 100.0%	28 96.6%	29 100.0%	24 82.8%
Rockcastle	295	288 97.6%	1 0.3%	2 0.7%	4 1.4%	198 67.1%	198 67.1%	185 62.7%	191 64.7%	193 65.4%	148 50.2%
Rowan	516	262 50.8%	0 0.0%	2 0.4%	19 3.7%	261 50.6%	262 50.8%	260 50.4%	259 50.2%	258 50.0%	215 41.7%
Russell	233	231 99.1%	1 0.4%	0 0.0%	1 0.4%	229 98.3%	231 99.1%	228 97.9%	227 97.4%	224 96.1%	222 95.3%
Scott	762	734 96.3%	1 0.1%	10 1.3%	17 2.2%	720 94.5%	680 89.2%	685 89.9%	716 94.0%	711 93.3%	677 88.8%
Shelby	564	541 95.9%	0 0.0%	16 2.8%	7 1.2%	543 96.3%	545 96.6%	540 95.7%	542 96.1%	537 95.2%	508 90.1%
Simpson	238	237 99.6%	0 0.0%	1 0.4%	0 0.0%	230 96.6%	234 98.3%	237 99.6%	235 98.7%	232 97.5%	226 95.0%
Spencer	215	214 99.5%	0 0.0%	1 0.5%	0 0.0%	210 97.7%	212 98.6%	213 99.1%	212 98.6%	210 97.7%	199 92.6%
Taylor	340	327 96.2%	0 0.0%	12 3.5%	1 0.3%	325 95.6%	324 95.3%	326 95.9%	323 95.0%	320 94.1%	306 90.0%
Todd	129	125 96.9%	0 0.0%	2 1.6%	2 1.6%	123 95.3%	125 96.9%	126 97.7%	125 96.9%	124 96.1%	123 95.3%
Trigg	139	136 97.8%	2 1.4%	1 0.7%	0 0.0%	135 97.1%	137 98.6%	137 98.6%	135 97.1%	135 97.1%	126 90.6%
Trimble	81	81 100.0%	0 0.0%	0 0.0%	0 0.0%	78 96.3%	81 100.0%	81 100.0%	79 97.5%	79 97.5%	70 86.4%
Union	255	248 97.3%	0 0.0%	6 2.4%	1 0.4%	247 96.9%	246 96.5%	247 96.9%	244 95.7%	241 94.5%	234 91.8%
Warren	1,522	1,443 94.8%	5 0.3%	11 0.7%	63 4.1%	1,355 89.0%	1,341 88.1%	1,318 86.6%	1,404 92.2%	1,379 90.6%	1,395 91.7%
Washington	154	152 98.7%	1 0.6%	0 0.0%	1 0.6%	152 98.7%	153 99.4%	153 99.4%	147 95.5%	146 94.8%	138 89.6%
Wayne	259	258 99.6%	1 0.4%	0 0.0%	0 0.0%	258 99.6%	258 99.6%	258 99.6%	258 99.6%	258 99.6%	249 96.1%
Webster	146	136 93.2%	0 0.0%	0 0.0%	10 6.8%	130 89.0%	131 89.7%	127 87.0%	131 89.7%	129 88.4%	117 80.1%
Whitley	581	528 90.9%	2 0.3%	7 1.2%	44 7.6%	531 91.4%	532 91.6%	519 89.3%	526 90.5%	523 90.0%	452 77.8%
Wolfe	94	69 73.4%	1 1.1%	1 1.1%	23 24.5%	70 74.5%	69 73.4%	70 74.5%	67 71.3%	65 69.1%	62 66.0%
Woodford	322	316 98.1%	1 0.3%	5 1.6%	0 0.0%	314 97.5%	316 98.1%	316 98.1%	316 98.1%	315 97.8%	302 93.8%

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Adair	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Allen	234	228 97.4%	0 0.0%	2 0.9%	4 1.7%	214 91.5%	213 91.0%	227 97.0%	226 96.6%	226 96.6%	199 85.0%
Anderson	300	294 98.0%	1 0.3%	3 1.0%	2 0.7%	284 94.7%	283 94.3%	298 99.3%	296 98.7%	282 94.0%	251 83.7%
Ballard	86	84 97.7%	0 0.0%	2 2.3%	0 0.0%	85 98.8%	85 98.8%	86 100.0%	86 100.0%	85 98.8%	81 94.2%
Barren	570	556 97.5%	3 0.5%	8 1.4%	3 0.5%	507 88.9%	504 88.4%	567 99.5%	557 97.7%	546 95.8%	473 83.0%
Bath	158	156 98.7%	1 0.6%	0 0.0%	1 0.6%	126 79.7%	127 80.4%	152 96.2%	156 98.7%	153 96.8%	79 50.0%
Bell	331	324 97.9%	0 0.0%	2 0.6%	5 1.5%	246 74.3%	236 71.3%	316 95.5%	317 95.8%	275 83.1%	103 31.1%
Boone	1,915	1,868 97.5%	9 0.5%	31 1.6%	7 0.4%	1,853 96.8%	1,856 96.9%	1,833 95.7%	1,880 98.2%	1,852 96.7%	1,712 89.4%
Bourbon	280	275 98.2%	1 0.4%	2 0.7%	2 0.7%	272 97.1%	271 96.8%	274 97.9%	275 98.2%	269 96.1%	250 89.3%
Boyd	591	574 97.1%	2 0.3%	8 1.4%	7 1.2%	568 96.1%	554 93.7%	568 96.1%	571 96.6%	556 94.1%	368 62.3%
Boyle	366	357 97.5%	3 0.8%	6 1.6%	0 0.0%	355 97.0%	351 95.9%	363 99.2%	359 98.1%	353 96.4%	294 80.3%
Bracken	116	113 97.4%	0 0.0%	0 0.0%	3 2.6%	108 93.1%	109 94.0%	114 98.3%	114 98.3%	114 98.3%	79 68.1%
Breathitt	194	191 98.5%	0 0.0%	2 1.0%	1 0.5%	190 97.9%	184 94.8%	190 97.9%	190 97.9%	190 97.9%	166 85.6%
Breckinridge	234	221 94.4%	0 0.0%	6 2.6%	7 3.0%	228 97.4%	227 97.0%	226 96.6%	224 95.7%	221 94.4%	205 87.6%
Bullitt	1,026	990 96.5%	4 0.4%	7 0.7%	28 2.7%	956 93.2%	950 92.6%	1014 98.8%	1002 97.7%	995 97.0%	942 91.8%
Butler	3	3 100.0%	0 0.0%	0 0.0%	0 0.0%	2 66.7%	2 66.7%	3 100.0%	3 100.0%	3 100.0%	2 66.7%
Caldwell	136	136 100.0%	0 0.0%	0 0.0%	0 0.0%	135 99.3%	133 97.8%	136 100.0%	134 98.5%	130 95.6%	102 75.0%
Calloway	325	313 96.3%	1 0.3%	13 4.0%	0 0.0%	310 95.4%	312 96.0%	312 96.0%	314 96.6%	312 96.0%	278 85.5%
Campbell	1,086	1071 98.6%	3 0.3%	11 1.0%	1 0.1%	1067 98.3%	1061 97.7%	1075 99.0%	1076 99.1%	1,065 98.1%	941 86.6%
Carlisle	72	70 97.2%	0 0.0%	2 2.8%	0 0.0%	70 97.2%	67 93.1%	72 100.0%	71 98.6%	70 97.2%	62 86.1%

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Carroll	153	152 99.3%	0 0.0%	0 0.0%	1 0.7%	135 88.2%	135 88.2%	152 99.3%	151 98.7%	149 97.4%	107 69.9%
Carter	327	322 98.5%	1 0.3%	3 0.9%	1 0.3%	315 96.3%	316 96.6%	325 99.4%	325 99.4%	323 98.8%	173 52.9%
Casey	176	173 98.3%	0 0.0%	1 0.6%	2 1.1%	170 96.6%	172 97.7%	175 99.4%	175 99.4%	172 97.7%	126 71.6%
Christian	676	666 98.5%	2 0.3%	3 0.4%	5 0.7%	638 94.4%	634 93.8%	660 97.6%	660 97.6%	653 96.6%	599 88.6%
Clark	477	432 90.6%	1 0.2%	2 0.4%	42 8.8%	297 62.3%	301 63.1%	456 95.6%	462 96.9%	433 90.8%	159 33.3%
Clay	264	260 98.5%	0 0.0%	0 0.0%	4 1.5%	250 94.7%	251 95.1%	261 98.9%	255 96.6%	250 94.7%	96 36.4%
Clinton	110	104 94.5%	0 0.0%	6 5.5%	0 0.0%	93 84.5%	93 84.5%	109 99.1%	108 98.2%	100 90.9%	61 55.5%
Crittenden	136	132 97.1%	2 1.5%	2 1.5%	0 0.0%	132 97.1%	131 96.3%	134 98.5%	135 99.3%	132 97.1%	119 87.5%
Cumberland	65	65 100.0%	0 0.0%	0 0.0%	0 0.0%	n/a n/a	63 96.9%	65 100.0%	65 100.0%	64 98.5%	62 95.4%
Daviess	1,307	1,298 99.3%	2 0.2%	11 0.8%	24 1.8%	1,208 92.4%	1,205 92.2%	1,284 98.2%	1,287 98.5%	1,241 95.0%	942 72.1%
Edmonson	148	148 100.0%	0 0.0%	0 0.0%	0 0.0%	144 97.3%	145 98.0%	148 100.0%	148 100.0%	147 99.3%	135 91.2%
Elliott	89	89 100.0%	0 0.0%	0 0.0%	0 0.0%	89 100.0%	89 100.0%	89 100.0%	89 100.0%	87 97.8%	76 85.4%
Estill	187	185 98.9%	0 0.0%	0 0.0%	2 1.1%	170 90.9%	169 90.4%	165 88.2%	174 93.0%	173 92.5%	114 61.0%
Fayette	3,635	3,654 100.5%	25 0.7%	41 1.1%	15 0.4%	3,253 89.5%	3,111 85.6%	3,565 98.1%	3,554 97.8%	3,485 95.9%	2,745 75.5%
Fleming	166	164 98.8%	0 0.0%	2 1.2%	0 0.0%	165 99.4%	164 98.8%	166 100.0%	166 100.0%	163 98.2%	154 92.8%
Floyd	433	426 98.4%	1 0.2%	6 1.4%	0 0.0%	429 99.1%	429 99.1%	432 99.8%	432 99.8%	431 99.5%	308 71.1%
Franklin	607	564 92.9%	11 1.8%	6 1.0%	26 4.3%	558 91.9%	563 92.8%	586 96.5%	586 96.5%	582 95.9%	407 67.1%
Fulton	62	61 98.4%	1 1.6%	0 0.0%	0 0.0%	61 98.4%	61 98.4%	62 100.0%	62 100.0%	61 98.4%	57 91.9%
Gallatin	137	137 100.0%	0 0.0%	0 0.0%	0 0.0%	126 92.0%	126 92.0%	135 98.5%	135 98.5%	131 95.6%	110 80.3%
Garrard	206	203 98.5%	0 0.0%	1 0.5%	2 1.0%	192 93.2%	187 90.8%	175 85.0%	197 95.6%	193 93.7%	148 71.8%



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Grant	358	347 96.9%	8 2.2%	3 0.8%	0 0.0%	352 98.3%	352 98.3%	353 98.6%	356 99.4%	351 98.0%	313 87.4%
Graves	431	418 97.0%	4 0.9%	8 1.9%	1 0.2%	423 98.1%	421 97.7%	429 99.5%	426 98.8%	422 97.9%	375 87.0%
Grayson	343	339 98.8%	1 0.3%	3 0.9%	0 0.0%	330 96.2%	331 96.5%	338 98.5%	337 98.3%	336 98.0%	290 84.5%
Green	119	114 95.8%	1 0.8%	1 0.8%	3 2.5%	111 93.3%	111 93.3%	117 98.3%	116 97.5%	115 96.6%	103 86.6%
Greenup	489	477 97.5%	4 0.8%	3 0.6%	5 1.0%	468 95.7%	447 91.4%	482 98.6%	480 98.2%	459 93.9%	376 76.9%
Hancock	127	124 97.6%	0 0.0%	2 1.6%	1 0.8%	125 98.4%	123 96.9%	125 98.4%	125 98.4%	124 97.6%	117 92.1%
Hardin	1,383	1,304 94.3%	6 0.4%	10 0.7%	63 4.6%	1,178 85.2%	1,144 82.7%	1,253 90.6%	1,323 95.7%	1,298 93.9%	918 66.4%
Harlan	352	340 96.6%	1 0.3%	0 0.0%	11 3.1%	271 77.0%	273 77.6%	328 93.2%	337 95.7%	302 85.8%	203 57.7%
Harrison	205	199 97.1%	1 0.5%	4 2.0%	1 0.5%	197 96.1%	196 95.6%	200 97.6%	199 97.1%	196 95.6%	170 82.9%
Hart	231	222 96.1%	3 1.3%	3 1.3%	3 1.3%	187 81.0%	216 93.5%	226 97.8%	224 97.0%	223 96.5%	198 85.7%
Henderson	564	537 95.2%	8 1.4%	10 1.8%	9 1.6%	534 94.7%	541 95.9%	558 98.9%	555 98.4%	546 96.8%	474 84.0%
Henry	215	212 98.6%	0 0.0%	3 1.4%	0 0.0%	207 96.3%	205 95.3%	212 98.6%	213 99.1%	210 97.7%	146 67.9%
Hickman	55	55 100.0%	0 0.0%	0 0.0%	0 0.0%	55 100.0%	55 100.0%	55 100.0%	55 100.0%	55 100.0%	53 96.4%
Hopkins	599	589 98.3%	2 0.3%	6 1.0%	2 0.3%	579 96.7%	579 96.7%	594 99.2%	594 99.2%	591 98.7%	565 94.3%
Jackson	179	166 92.7%	4 2.2%	1 0.6%	8 4.5%	176 98.3%	169 94.4%	178 99.4%	177 98.9%	172 96.1%	96 53.6%
Jefferson	9,486	9,226 97.3%	27 0.3%	59 0.6%	172 1.8%	8,611 90.8%	8,508 89.7%	9,260 97.6%	9,191 96.9%	9,086 95.8%	6,843 72.1%
Jessamine	664	637 95.9%	5 0.8%	20 3.0%	2 0.3%	624 94.0%	622 93.7%	661 99.5%	637 95.9%	621 93.5%	494 74.4%
Johnson	317	305 96.2%	3 0.9%	2 0.6%	7 2.2%	281 88.6%	277 87.4%	47 14.8%	306 96.5%	303 95.6%	155 48.9%
Kenton	2,094	2,042 97.5%	30 1.4%	42 2.0%	16 0.8%	2,001 95.6%	1,997 95.4%	2,057 98.2%	2,054 98.1%	2,025 96.7%	1,803 86.1%
Knott	186	179 96.2%	1 0.5%	4 2.2%	2 1.1%	175 94.1%	154 82.8%	175 94.1%	175 94.1%	164 88.2%	86 46.2%

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Knox	578	549 95.0%	3 0.5%	14 2.4%	12 2.1%	481 83.2%	461 79.8%	550 95.2%	554 95.8%	516 89.3%	268 46.4%
LaRue	190	185 97.4%	3 1.6%	1 0.5%	1 0.5%	188 98.9%	186 97.9%	187 98.4%	186 97.9%	183 96.3%	154 81.1%
Laurel	717	704 98.2%	3 0.4%	3 0.4%	7 1.0%	683 95.3%	683 95.3%	698 97.4%	698 97.4%	664 92.6%	430 60.0%
Lawrence	199	199 100.0%	0 0.0%	0 0.0%	0 0.0%	197 99.0%	197 99.0%	199 100.0%	199 100.0%	194 97.5%	150 75.4%
Lee	69	69 100.0%	0 0.0%	0 0.0%	0 0.0%	64 92.8%	64 92.8%	68 98.6%	68 98.6%	68 98.6%	50 72.5%
Leslie	137	136 99.3%	1 0.7%	0 0.0%	0 0.0%	112 81.8%	112 81.8%	136 99.3%	135 98.5%	118 86.1%	65 47.4%
Letcher	281	274 97.5%	4 1.4%	1 0.4%	2 0.7%	276 98.2%	275 97.9%	277 98.6%	275 97.9%	274 97.5%	251 89.3%
Lewis	178	176 98.9%	1 0.6%	1 0.6%	0 0.0%	176 98.9%	176 98.9%	177 99.4%	175 98.3%	173 97.2%	124 69.7%
Lincoln	316	312 98.7%	0 0.0%	2 0.6%	2 0.6%	290 91.8%	290 91.8%	294 93.0%	290 91.8%	286 90.5%	209 66.1%
Livingston	82	81 98.8%	0 0.0%	1 1.2%	0 0.0%	82 100.0%	82 100.0%	82 100.0%	82 100.0%	82 100.0%	82 100.0%
Logan	287	283 98.6%	3 1.0%	3 1.0%	0 0.0%	282 98.3%	279 97.2%	285 99.3%	283 98.6%	280 97.6%	266 92.7%
Lyon	82	81 98.8%	0 0.0%	1 1.2%	0 0.0%	80 97.6%	81 98.8%	81 98.8%	81 98.8%	81 98.8%	69 84.1%
Madison	1052	1031 98.0%	1 0.1%	16 1.5%	4 0.4%	1025 97.4%	1022 97.1%	1042 99.0%	1042 99.0%	1034 98.3%	828 78.7%
Magoffin	166	147 88.6%	1 0.6%	1 0.6%	17 10.2%	165 99.4%	61 36.7%	157 94.6%	149 89.8%	125 75.3%	48 28.9%
Marion	270	256 94.8%	0 0.0%	0 0.0%	14 5.2%	261 96.7%	259 95.9%	263 97.4%	263 97.4%	257 95.2%	210 77.8%
Marshall	394	383 97.2%	0 0.0%	6 1.5%	5 1.3%	376 95.4%	373 94.7%	385 97.7%	383 97.2%	377 95.7%	302 76.6%
Martin	121	107 88.4%	14 11.6%	0 0.0%	0 0.0%	113 93.4%	113 93.4%	120 99.2%	120 99.2%	104 86.0%	10 8.3%
Mason	216	210 97.2%	2 0.9%	2 0.9%	2 0.9%	207 95.8%	205 94.9%	200 92.6%	208 96.3%	187 86.6%	175 81.0%
McCracken	798	768 96.2%	3 0.4%	21 2.6%	6 0.8%	757 94.9%	759 95.1%	760 95.2%	774 97.0%	766 96.0%	623 78.1%
McCreary	219	219 100.0%	0 0.0%	0 0.0%	0 0.0%	198 90.4%	195 89.0%	218 99.5%	217 99.1%	210 95.9%	172 78.5%

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McLean	108	104 96.3%	0 0.0%	4 3.7%	0 0.0%	104 96.3%	104 96.3%	103 95.4%	104 96.3%	103 95.4%	103 95.4%
Meade	363	354 97.5%	8 2.2%	1 0.3%	0 0.0%	359 98.9%	360 99.2%	361 99.4%	360 99.2%	357 98.3%	311 85.7%
Menifee	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%	50 92.6%
Mercer	221	219 99.1%	1 0.5%	2 0.9%	0 0.0%	216 97.7%	216 97.7%	220 99.5%	220 99.5%	215 97.3%	159 71.9%
Metcalfe	106	106 100.0%	0 0.0%	0 0.0%	0 0.0%	97 91.5%	97 91.5%	106 100.0%	106 100.0%	105 99.1%	96 90.6%
Monroe	121	119 98.3%	1 0.8%	1 0.8%	0 0.0%	117 96.7%	117 96.7%	121 100.0%	121 100.0%	118 97.5%	87 71.9%
Montgomery	339	335 98.8%	0 0.0%	1 0.3%	3 0.9%	321 94.7%	319 94.1%	334 98.5%	334 98.5%	330 97.3%	285 84.1%
Morgan	165	163 98.8%	0 0.0%	2 1.2%	0 0.0%	163 98.8%	162 98.2%	164 99.4%	163 98.8%	160 97.0%	118 71.5%
Muhlenberg	351	347 98.9%	0 0.0%	2 0.6%	3 0.9%	299 85.2%	299 85.2%	349 99.4%	339 96.6%	326 92.9%	172 49.0%
Nelson	577	558 96.7%	2 0.3%	1 0.2%	29 5.0%	522 90.5%	507 87.9%	568 98.4%	566 98.1%	562 97.4%	472 81.8%
Nicholas	87	86 98.9%	0 0.0%	1 1.1%	0 0.0%	86 98.9%	86 98.9%	87 100.0%	87 100.0%	85 97.7%	67 77.0%
Ohio	391	359 91.8%	4 1.0%	5 1.3%	23 5.9%	287 73.4%	288 73.7%	297 76.0%	369 94.4%	343 87.7%	168 43.0%
Oldham	1,124	1,099 97.8%	1 0.1%	24 2.1%	0 0.0%	1,104 98.2%	1,105 98.3%	1,108 98.6%	1,103 98.1%	1,097 97.6%	1,034 92.0%
Owen	145	142 97.9%	2 1.4%	1 0.7%	0 0.0%	142 97.9%	143 98.6%	142 97.9%	143 98.6%	143 98.6%	125 86.2%
Owsley	69	69 100.0%	0 0.0%	0 0.0%	1 1.6%	68 98.6%	60 87.0%	69 100.0%	67 97.1%	64 92.8%	38 55.1%
Pendleton	173	169 97.7%	1 0.6%	3 1.7%	0 0.0%	170 98.3%	170 98.3%	172 99.4%	170 98.3%	166 96.0%	162 93.6%
Perry	365	360 98.6%	2 0.5%	3 0.8%	0 0.0%	356 97.5%	330 90.4%	358 98.1%	357 97.8%	344 94.2%	237 64.9%
Pike	511	508 99.4%	2 0.4%	1 0.2%	0 0.0%	507 99.2%	508 99.4%	510 99.8%	508 99.4%	506 99.0%	427 83.6%
Powell	173	173 100.0%	0 0.0%	0 0.0%	0 0.0%	169 97.7%	169 97.7%	172 99.4%	172 99.4%	170 98.3%	145 83.8%
Pulaski	816	794 97.3%	5 0.6%	13 1.6%	4 0.5%	801 98.2%	800 98.0%	801 98.2%	799 97.9%	797 97.7%	672 82.4%

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Robertson	27	27 100.0%	0 0.0%	0 0.0%	0 0.0%	27 100.0%	27 100.0%	27 100.0%	27 100.0%	27 100.0%	24 88.9%
Rockcastle	203	201 99.0%	0 0.0%	0 0.0%	2 1.0%	202 99.5%	185 91.1%	198 97.5%	201 99.0%	197 97.0%	127 62.6%
Rowan	284	277 97.5%	1 0.4%	1 0.4%	5 1.8%	248 87.3%	248 87.3%	282 99.3%	279 98.2%	270 95.1%	185 65.1%
Russell	236	235 99.6%	1 0.4%	0 0.0%	0 0.0%	233 98.7%	233 98.7%	236 100.0%	234 99.2%	232 98.3%	177 75.0%
Scott	760	738 97.1%	8 1.1%	5 0.7%	9 1.2%	662 87.1%	665 87.5%	744 97.9%	733 96.4%	713 93.8%	598 78.7%
Shelby	536	523 97.6%	1 0.2%	8 1.5%	4 0.7%	502 93.7%	499 93.1%	525 97.9%	518 96.6%	508 94.8%	433 80.8%
Simpson	225	219 97.3%	1 0.4%	4 1.8%	0 0.0%	219 97.3%	219 97.3%	219 97.3%	219 97.3%	219 97.3%	200 88.9%
Spencer	245	243 99.2%	1 0.4%	1 0.4%	0 0.0%	244 99.6%	244 99.6%	245 100.0%	245 100.0%	244 99.6%	222 90.6%
Taylor	291	280 96.2%	1 0.3%	9 3.1%	1 0.3%	285 97.9%	275 94.5%	283 97.3%	284 97.6%	267 91.8%	226 77.7%
Todd	162	161 99.4%	0 0.0%	0 0.0%	1 0.6%	145 89.5%	145 89.5%	161 99.4%	160 98.8%	160 98.8%	155 95.7%
Trigg	157	154 98.1%	1 0.6%	2 1.3%	0 0.0%	153 97.5%	151 96.2%	157 100.0%	157 100.0%	156 99.4%	133 84.7%
Trimble	96	95 99.0%	0 0.0%	0 0.0%	1 1.0%	94 97.9%	94 97.9%	95 99.0%	95 99.0%	94 97.9%	80 83.3%
Union	196	193 98.5%	1 0.5%	2 1.0%	0 0.0%	192 98.0%	193 98.5%	194 99.0%	196 100.0%	191 97.4%	138 70.4%
Warren	1,292	1,270 98.3%	4 0.3%	8 0.6%	10 0.8%	1,184 91.6%	1,186 91.8%	1,268 98.1%	1,271 98.4%	1,227 95.0%	1,154 89.3%
Washington	140	137 97.9%	1 0.7%	1 0.7%	1 0.7%	134 95.7%	134 95.7%	139 99.3%	138 98.6%	138 98.6%	115 82.1%
Wayne	255	245 96.1%	4 1.6%	6 2.4%	0 0.0%	250 98.0%	252 98.8%	253 99.2%	253 99.2%	252 98.8%	220 86.3%
Webster	166	166 100.0%	0 0.0%	0 0.0%	0 0.0%	156 94.0%	151 91.0%	164 98.8%	160 96.4%	159 95.8%	128 77.1%
Whitley	349	344 98.6%	2 0.6%	0 0.0%	3 0.9%	338 96.8%	333 95.4%	346 99.1%	347 99.4%	341 97.7%	301 86.2%
Wolfe	89	86 96.6%	0 0.0%	0 0.0%	3 3.4%	69 77.5%	73 82.0%	86 96.6%	85 95.5%	85 95.5%	54 60.7%
Woodford	309	302 97.7%	2 0.6%	5 1.6%	0 0.0%	304 98.4%	304 98.4%	304 98.4%	304 98.4%	292 94.5%	277 89.6%

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Adair	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Allen	217	211 97.2%	2 0.9%	3 1.4%	1 0.5%	210 96.8%	140 64.5%	211 97.2%	210 96.8%	204 94.0%	97 44.7%
Anderson	240	236 98.3%	3 1.3%	1 0.4%	0 0.0%	239 99.6%	180 75.0%	237 98.8%	238 99.2%	222 92.5%	90 37.5%
Ballard	83	81 97.6%	0 0.0%	2 2.4%	0 0.0%	83 100.0%	80 96.4%	83 100.0%	83 100.0%	79 95.2%	62 74.7%
Barren	428	417 97.4%	3 0.7%	6 1.4%	2 0.5%	421 98.4%	336 78.5%	423 98.8%	423 98.8%	400 93.5%	166 38.8%
Bath	130	130 100.0%	0 0.0%	0 0.0%	0 0.0%	122 93.8%	65 50.0%	130 100.0%	130 100.0%	121 93.1%	23 17.7%
Bell	300	282 94.0%	0 0.0%	2 0.7%	16 5.3%	235 78.3%	102 34.0%	285 95.0%	289 96.3%	231 77.0%	25 8.3%
Boone	1,696	1,653 97.5%	5 0.3%	29 1.7%	9 0.5%	1,638 96.6%	1,355 79.9%	1,650 97.3%	1,626 95.9%	1,593 93.9%	1,229 72.5%
Bourbon	228	226 99.1%	1 0.4%	1 0.4%	0 0.0%	224 98.2%	184 80.7%	227 99.6%	225 98.7%	203 89.0%	124 54.4%
Boyd	466	454 97.4%	1 0.2%	2 0.4%	9 1.9%	444 95.3%	224 48.1%	452 97.0%	450 96.6%	405 86.9%	171 36.7%
Boyle	356	339 95.2%	14 3.9%	3 0.8%	0 0.0%	351 98.6%	294 82.6%	353 99.2%	353 99.2%	339 95.2%	177 49.7%
Bracken	114	96 84.2%	15 13.2%	2 1.8%	1 0.9%	109 95.6%	74 64.9%	108 94.7%	111 97.4%	102 89.5%	48 42.1%
Breathitt	183	181 98.9%	0 0.0%	1 0.5%	1 0.5%	178 97.3%	160 87.4%	180 98.4%	181 98.9%	175 95.6%	97 53.0%
Breckinridge	230	218 94.8%	1 0.4%	2 0.9%	9 3.9%	217 94.3%	213 92.6%	205 89.1%	218 94.8%	201 87.4%	108 47.0%
Bullitt	1,029	1002 97.4%	7 0.7%	12 1.2%	8 0.8%	955 92.8%	979 95.1%	1012 98.3%	1002 97.4%	957 93.0%	796 77.4%
Butler	161	157 97.5%	0 0.0%	2 1.2%	2 1.2%	153 95.0%	110 68.3%	158 98.1%	155 96.3%	144 89.4%	84 52.2%
Caldwell	137	136 99.3%	0 0.0%	1 0.7%	0 0.0%	136 99.3%	105 76.6%	137 100.0%	136 99.3%	135 98.5%	52 38.0%
Calloway	330	323 97.9%	0 0.0%	7 2.1%	0 0.0%	324 98.2%	309 93.6%	327 99.1%	327 99.1%	320 97.0%	234 70.9%
Campbell	879	874 99.4%	4 0.5%	1 0.1%	0 0.0%	863 98.2%	687 78.2%	873 99.3%	875 99.5%	849 96.6%	580 66.0%
Carlisle	43	42 97.7%	0 0.0%	1 2.3%	0 0.0%	42 97.7%	25 58.1%	42 97.7%	42 97.7%	36 83.7%	21 48.8%

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Carroll	134	128 95.5%	0 0.0%	2 1.5%	4 3.0%	125 93.3%	95 70.9%	129 96.3%	129 96.3%	116 86.6%	74 55.2%
Carter	320	312 97.5%	2 0.6%	2 0.6%	4 1.3%	312 97.5%	133 41.6%	314 98.1%	314 98.1%	297 92.8%	100 31.3%
Casey	154	148 96.1%	1 0.6%	2 1.3%	3 1.9%	8 5.2%	131 85.1%	152 98.7%	152 98.7%	143 92.9%	49 31.8%
Christian	609	602 98.9%	0 0.0%	7 1.1%	0 0.0%	597 98.0%	450 73.9%	562 92.3%	596 97.9%	582 95.6%	392 64.4%
Clark	379	321 84.7%	1 0.3%	2 0.5%	55 14.5%	298 78.6%	66 17.4%	343 90.5%	340 89.7%	288 76.0%	41 10.8%
Clay	279	268 96.1%	1 0.4%	0 0.0%	10 3.6%	245 87.8%	241 86.4%	259 92.8%	250 89.6%	231 82.8%	60 21.5%
Clinton	117	111 94.9%	1 0.9%	3 2.6%	2 1.7%	106 90.6%	84 71.8%	110 94.0%	110 94.0%	103 88.0%	25 21.4%
Crittenden	80	78 97.5%	1 1.3%	1 1.3%	0 0.0%	78 97.5%	70 87.5%	77 96.3%	80 100.0%	75 93.8%	58 72.5%
Cumberland	77	70 90.9%	3 3.9%	2 2.6%	2 2.6%	n/a n/a	48 62.3%	69 89.6%	68 88.3%	69 89.6%	8 10.4%
Daviess	1,210	1,184 97.9%	7 0.6%	9 0.7%	10 0.8%	1,165 96.3%	673 55.6%	1,181 97.6%	1,190 98.3%	1,114 92.1%	488 40.3%
Edmonson	131	131 100.0%	0 0.0%	0 0.0%	0 0.0%	130 99.2%	88 67.2%	131 100.0%	129 98.5%	119 90.8%	69 52.7%
Elliott	75	72 100.0%	1 1.3%	2 2.7%	0 0.0%	72 96.0%	66 88.0%	73 97.3%	72 96.0%	71 94.7%	41 54.7%
Estill	169	163 96.4%	0 0.0%	1 0.6%	5 3.0%	146 86.4%	114 67.5%	154 91.1%	153 90.5%	139 82.2%	112 66.3%
Fayette	3,298	3,217 97.5%	28 0.8%	20 0.6%	34 1.0%	3,051 92.5%	1,490 45.2%	3,204 97.1%	3,206 97.2%	2,978 90.3%	1,598 48.5%
Fleming	163	161 98.8%	1 0.6%	1 0.6%	0 0.0%	163 100.0%	157 96.3%	161 98.8%	161 98.8%	151 92.6%	82 50.3%
Floyd	362	352 97.2%	1 0.3%	4 1.1%	5 1.4%	354 97.8%	301 83.1%	354 97.8%	355 98.1%	330 91.2%	233 64.4%
Franklin	452	436 96.5%	2 0.4%	0 0.0%	14 3.1%	421 93.1%	317 70.1%	433 95.8%	438 96.9%	407 90.0%	217 48.0%
Fulton	56	56 100.0%	0 0.0%	0 0.0%	0 0.0%	56 100.0%	51 91.1%	56 100.0%	56 100.0%	56 100.0%	41 73.2%
Gallatin	106	103 97.2%	0 0.0%	0 0.0%	3 2.8%	99 93.4%	55 51.9%	102 96.2%	102 96.2%	95 89.6%	44 41.5%
Garrard	187	187 100.0%	0 0.0%	0 0.0%	0 0.0%	175 93.6%	158 84.5%	176 94.1%	187 100.0%	180 96.3%	99 52.9%

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<b>Kentucky (Total)</b>	<b>51,854</b>	<b>49,714</b> 95.9%	<b>383</b> 0.7%	<b>434</b> 0.8%	<b>1,087</b> 2.1%	<b>48,456</b> 93.4%	<b>33,210</b> 64.0%	<b>49,718</b> 95.9%	<b>49,828</b> 96.1%	<b>47,006</b> 90.7%	<b>25,626</b> 49.4%
Grant	305	285 93.4%	6 2.0%	5 1.6%	9 3.0%	300 98.4%	229 75.1%	299 98.0%	303 99.3%	281 92.1%	189 62.0%
Graves	449	444 98.9%	0 0.0%	4 0.9%	1 0.2%	444 98.9%	385 85.7%	445 99.1%	444 98.9%	434 96.7%	252 56.1%
Grayson	332	328 98.8%	2 0.6%	1 0.3%	1 0.3%	330 99.4%	193 58.1%	331 99.7%	331 99.7%	313 94.3%	230 69.3%
Green	128	124 96.9%	1 0.8%	0 0.0%	3 2.3%	121 94.5%	76 59.4%	121 94.5%	124 96.9%	122 95.3%	63 49.2%
Greenup	377	364 96.6%	5 1.3%	4 1.1%	4 1.1%	357 94.7%	247 65.5%	376 99.7%	373 98.9%	350 92.8%	237 62.9%
Hancock	125	119 95.2%	1 0.8%	1 0.8%	4 3.2%	125 100.0%	110 88.0%	124 99.2%	124 99.2%	117 93.6%	83 66.4%
Hardin	1,304	1,188 91.1%	3 0.2%	19 1.5%	94 7.2%	1,152 88.3%	524 40.2%	1,217 93.3%	1,216 93.3%	1,132 86.8%	520 39.9%
Harlan	289	275 95.2%	0 0.0%	0 0.0%	14 4.8%	254 87.9%	160 55.4%	276 95.5%	276 95.5%	248 85.8%	96 33.2%
Harrison	212	210 99.1%	0 0.0%	1 0.5%	1 0.5%	208 98.1%	189 89.2%	211 99.5%	211 99.5%	198 93.4%	100 47.2%
Hart	223	204 91.5%	16 7.2%	0 0.0%	3 1.3%	213 95.5%	174 78.0%	218 97.8%	221 99.1%	201 90.1%	134 60.1%
Henderson	512	502 98.0%	2 0.4%	5 1.0%	3 0.6%	502 98.0%	173 33.8%	505 98.6%	513 100.2%	471 92.0%	126 24.6%
Henry	207	201 97.1%	1 0.5%	5 2.4%	0 0.0%	204 98.6%	130 62.8%	204 98.6%	204 98.6%	198 95.7%	102 49.3%
Hickman	48	47 97.9%	0 0.0%	1 2.1%	0 0.0%	47 97.9%	47 97.9%	47 97.9%	47 97.9%	44 91.7%	43 89.6%
Hopkins	470	460 97.9%	0 0.0%	10 2.1%	0 0.0%	458 97.4%	357 76.0%	463 98.5%	464 98.7%	451 96.0%	336 71.5%
Jackson	130	129 99.2%	1 0.8%	0 0.0%	0 0.0%	124 95.4%	109 83.8%	130 100.0%	130 100.0%	119 91.5%	55 42.3%
Jefferson	10,331	9,814 95.0%	60 0.6%	65 0.6%	395 3.8%	9,738 94.3%	5,586 54.1%	9,879 95.6%	9,803 94.9%	9,446 91.4%	5,073 49.1%
Jessamine	622	583 93.7%	10 1.6%	21 3.4%	8 1.3%	589 94.7%	406 65.3%	588 94.5%	588 94.5%	546 87.8%	297 47.7%
Johnson	319	306 95.9%	7 2.2%	3 0.9%	3 0.9%	216 67.7%	41 12.9%	299 93.7%	298 93.4%	214 67.1%	27 8.5%
Kenton	1,853	1,813 97.8%	10 0.5%	20 1.1%	10 0.5%	1,815 97.9%	1,076 58.1%	1,746 94.2%	1,827 98.6%	1,755 94.7%	1,118 60.3%
Knott	145	138 95.2%	0 0.0%	1 0.7%	6 4.1%	139 95.9%	101 69.7%	139 95.9%	139 95.9%	121 83.4%	35 24.1%

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<b>Kentucky (Total)</b>	<b>51,854</b>	<b>49,714</b> 95.9%	<b>383</b> 0.7%	<b>434</b> 0.8%	<b>1,087</b> 2.1%	<b>48,456</b> 93.4%	<b>33,210</b> 64.0%	<b>49,718</b> 95.9%	<b>49,828</b> 96.1%	<b>47,006</b> 90.7%	<b>25,626</b> 49.4%
Knox	355	323 91.0%	19 5.4%	1 0.3%	12 3.4%	308 86.8%	103 29.0%	342 96.3%	340 95.8%	288 81.1%	82 23.1%
LaRue	164	162 98.8%	0 0.0%	0 0.0%	2 1.2%	163 99.4%	94 57.3%	163 99.4%	163 99.4%	160 97.6%	98 59.8%
Laurel	1003	933 93.0%	1 0.1%	8 0.8%	61 6.1%	793 79.1%	316 31.5%	939 93.6%	941 93.8%	780 77.8%	207 20.6%
Lawrence	169	168 99.4%	0 0.0%	0 0.0%	1 0.6%	167 98.8%	116 68.6%	169 100.0%	169 100.0%	152 89.9%	35 20.7%
Lee	65	65 100.0%	0 0.0%	0 0.0%	0 0.0%	60 92.3%	38 58.5%	64 98.5%	64 98.5%	60 92.3%	25 38.5%
Leslie	104	100 96.2%	0 0.0%	0 0.0%	4 3.8%	101 97.1%	70 67.3%	104 100.0%	102 98.1%	96 92.3%	39 37.5%
Letcher	225	223 99.1%	1 0.4%	1 0.4%	0 0.0%	217 96.4%	153 68.0%	223 99.1%	221 98.2%	213 94.7%	87 38.7%
Lewis	166	165 99.4%	1 0.6%	0 0.0%	0 0.0%	164 98.8%	117 70.5%	166 100.0%	164 98.8%	156 94.0%	56 33.7%
Lincoln	292	288 98.6%	1 0.3%	0 0.0%	3 1.0%	267 91.4%	189 64.7%	273 93.5%	303 103.8%	251 86.0%	81 27.7%
Livingston	79	78 98.7%	0 0.0%	0 0.0%	1 1.3%	n/a n/a	43 54.4%	78 98.7%	78 98.7%	72 91.1%	32 40.5%
Logan	279	277 99.3%	2 0.7%	0 0.0%	0 0.0%	276 98.9%	223 79.9%	278 99.6%	279 100.0%	265 95.0%	209 74.9%
Lyon	57	57 100.0%	0 0.0%	0 0.0%	0 0.0%	57 100.0%	47 82.5%	57 100.0%	57 100.0%	53 93.0%	40 70.2%
Madison	902	888 98.4%	4 0.4%	9 1.0%	1 0.1%	884 98.0%	730 80.9%	894 99.1%	893 99.0%	860 95.3%	483 53.5%
Magoffin	147	138 93.9%	0 0.0%	0 0.0%	9 6.1%	84 57.1%	22 15.0%	141 95.9%	140 95.2%	84 57.1%	21 14.3%
Marion	208	200 96.2%	1 0.5%	1 0.5%	6 2.9%	198 95.2%	202 97.1%	198 95.2%	199 95.7%	193 92.8%	49 23.6%
Marshall	340	333 97.9%	1 0.3%	3 0.9%	3 0.9%	320 94.1%	315 92.6%	330 97.1%	332 97.6%	323 95.0%	182 53.5%
Martin	130	123 94.6%	5 3.8%	0 0.0%	2 1.5%	125 96.2%	72 55.4%	125 96.2%	125 96.2%	120 92.3%	42 32.3%
Mason	155	117 75.5%	0 0.0%	0 0.0%	38 24.5%	132 85.2%	85 54.8%	144 92.9%	142 91.6%	128 82.6%	84 54.2%
McCracken	696	681 97.8%	3 0.4%	11 1.6%	1 0.1%	681 97.8%	466 67.0%	690 99.1%	687 98.7%	636 91.4%	243 34.9%
McCreary	181	181 100.0%	0 0.0%	0 0.0%	0 0.0%	181 100.0%	161 89.0%	181 100.0%	180 99.4%	179 98.9%	102 56.4%



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McLean	119	112 94.1%	5 4.2%	2 1.7%	0 0.0%	119 100.0%	114 95.8%	117 98.3%	118 99.2%	114 95.8%	80 67.2%
Meade	378	361 95.5%	16 4.2%	1 0.3%	0 0.0%	376 99.5%	366 96.8%	377 99.7%	377 99.7%	362 95.8%	230 60.8%
Menifee	123	119 96.7%	4 3.3%	0 0.0%	0 0.0%	123 100.0%	113 91.9%	123 100.0%	123 100.0%	120 97.6%	80 65.0%
Mercer	211	209 99.1%	2 0.9%	0 0.0%	0 0.0%	211 100.0%	184 87.2%	210 99.5%	211 100.0%	204 96.7%	98 46.4%
Metcalfe	110	105 95.5%	1 0.9%	0 0.0%	4 3.6%	105 95.5%	55 50.0%	105 95.5%	106 96.4%	104 94.5%	56 50.9%
Monroe	140	138 98.6%	1 0.7%	1 0.7%	0 0.0%	137 97.9%	110 78.6%	140 100.0%	140 100.0%	134 95.7%	51 36.4%
Montgomery	324	320 98.8%	0 0.0%	4 1.2%	0 0.0%	323 99.7%	239 73.8%	314 96.9%	318 98.1%	299 92.3%	115 35.5%
Morgan	147	146 99.3%	1 0.7%	0 0.0%	0 0.0%	147 100.0%	106 72.1%	147 100.0%	144 98.0%	135 91.8%	78 53.1%
Muhlenberg	271	267 98.5%	0 0.0%	0 0.0%	4 1.5%	260 95.9%	68 25.1%	262 96.7%	265 97.8%	244 90.0%	45 16.6%
Nelson	601	590 98.2%	7 1.2%	3 0.5%	1 0.2%	578 96.2%	522 86.9%	586 97.5%	584 97.2%	562 93.5%	372 61.9%
Nicholas	74	71 95.9%	0 0.0%	0 0.0%	3 4.1%	65 87.8%	68 91.9%	74 100.0%	74 100.0%	63 85.1%	32 43.2%
Ohio	279	270 96.8%	0 0.0%	5 1.8%	4 1.4%	257 92.1%	100 35.8%	262 93.9%	266 95.3%	252 90.3%	68 24.4%
Oldham	1,015	988 97.3%	6 0.6%	21 2.1%	0 0.0%	1,002 98.7%	960 94.6%	1,009 99.4%	1,003 98.8%	968 95.4%	793 78.1%
Owen	147	146 99.3%	0 0.0%	0 0.0%	1 0.7%	144 98.0%	115 78.2%	147 100.0%	147 100.0%	141 95.9%	69 46.9%
Owsley	56	54 96.4%	1 1.8%	0 0.0%	1 1.6%	55 98.2%	32 57.1%	55 98.2%	55 98.2%	52 92.9%	13 23.2%
Pendleton	199	198 99.5%	0 0.0%	1 0.5%	0 0.0%	199 100.0%	196 98.5%	199 100.0%	199 100.0%	190 95.5%	160 80.4%
Perry	336	289 86.0%	2 0.6%	0 0.0%	45 13.4%	297 88.4%	204 60.7%	122 36.3%	323 96.1%	283 84.2%	136 40.5%
Pike	627	611 97.4%	6 1.0%	2 0.3%	8 1.3%	614 97.9%	581 92.7%	586 93.5%	621 99.0%	606 96.7%	414 66.0%
Powell	170	153 90.0%	6 3.5%	1 0.6%	10 5.9%	147 86.5%	89 52.4%	162 95.3%	161 94.7%	148 87.1%	42 24.7%
Pulaski	801	784 97.9%	6 0.7%	11 1.4%	0 0.0%	788 98.4%	744 92.9%	796 99.4%	787 98.3%	765 95.5%	432 53.9%

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Robertson	30	29 96.7%	0 0.0%	0 0.0%	1 3.3%	29 96.7%	26 86.7%	30 100.0%	30 100.0%	30 100.0%	16 53.3%
Rockcastle	231	224 97.0%	1 0.4%	3 1.3%	3 1.3%	220 95.2%	168 72.7%	223 96.5%	223 96.5%	208 90.0%	100 43.3%
Rowan	473	450 95.1%	6 1.3%	2 0.4%	15 3.2%	454 96.0%	451 95.3%	464 98.1%	463 97.9%	414 87.5%	200 42.3%
Russell	225	223 99.1%	1 0.4%	1 0.4%	0 0.0%	222 98.7%	138 61.3%	224 99.6%	224 99.6%	214 95.1%	59 26.2%
Scott	635	616 97.0%	2 0.3%	6 0.9%	11 1.7%	575 90.6%	359 56.5%	610 96.1%	610 96.1%	541 85.2%	359 56.5%
Shelby	495	479 96.8%	1 0.2%	5 1.0%	10 2.0%	464 93.7%	244 49.3%	477 96.4%	477 96.4%	448 90.5%	252 50.9%
Simpson	N/A	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spencer	224	214 95.5%	2 0.9%	5 2.2%	3 1.3%	213 95.1%	175 78.1%	218 97.3%	218 97.3%	207 92.4%	149 66.5%
Taylor	283	271 95.8%	4 1.4%	4 1.4%	4 1.4%	278 98.2%	209 73.9%	278 98.2%	278 98.2%	260 91.9%	130 45.9%
Todd	116	113 97.4%	0 0.0%	0 0.0%	3 2.6%	113 97.4%	49 42.2%	114 98.3%	114 98.3%	112 96.6%	58 50.0%
Trigg	152	149 98.0%	1 0.7%	2 1.3%	0 0.0%	150 98.7%	83 54.6%	151 99.3%	150 98.7%	142 93.4%	65 42.8%
Trimble	82	79 96.3%	1 1.2%	2 2.4%	0 0.0%	82 100.0%	66 80.5%	82 100.0%	82 100.0%	76 92.7%	42 51.2%
Union	168	160 95.2%	5 3.0%	3 1.8%	0 0.0%	165 98.2%	113 67.3%	164 97.6%	163 97.0%	155 92.3%	77 45.8%
Warren	1,458	1,409 96.6%	22 1.5%	5 0.3%	22 1.5%	1,354 92.9%	1,005 68.9%	1,407 96.5%	1,417 97.2%	1,327 91.0%	914 62.7%
Washington	137	135 98.5%	0 0.0%	1 0.7%	1 0.7%	132 96.4%	78 56.9%	135 98.5%	135 98.5%	127 92.7%	36 26.3%
Wayne	232	231 99.6%	1 0.4%	0 0.0%	0 0.0%	230 99.1%	228 98.3%	232 100.0%	232 100.0%	225 97.0%	134 57.8%
Webster	156	147 94.2%	0 0.0%	0 0.0%	9 5.8%	147 94.2%	92 59.0%	145 92.9%	147 94.2%	135 86.5%	53 34.0%
Whitley	514	497 96.7%	4 0.8%	4 0.8%	9 1.8%	487 94.7%	325 63.2%	499 97.1%	303 58.9%	419 81.5%	161 31.3%
Wolfe	101	98 97.0%	0 0.0%	0 0.0%	3 3.0%	71 70.3%	57 56.4%	98 97.0%	98 97.0%	70 69.3%	13 12.9%
Woodford	308	303 98.4%	1 0.3%	4 1.3%	0 0.0%	303 98.4%	273 88.6%	301 97.7%	303 98.4%	282 91.6%	206 66.9%

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<b>Kentucky (Total)</b>	<b>48,384</b>	<b>46,614</b> 96.3%	<b>374</b> 0.8%	<b>391</b> 0.8%	<b>796</b> 1.6%	<b>45,558</b> 94.2%	<b>31,308</b> 64.7%	<b>46,500</b> 96.1%	<b>46,875</b> 96.9%	<b>43,387</b> 89.7%	<b>22,306</b> 46.1%
Adair	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Allen	224	223 99.6%	0 0.0%	0 0.0%	1 0.4%	223 99.6%	141 62.9%	223 99.6%	223 99.6%	216 96.4%	93 41.5%
Anderson	220	212 96.4%	2 0.9%	4 1.8%	2 0.9%	217 98.6%	175 79.5%	213 96.8%	215 97.7%	196 89.1%	75 34.1%
Ballard	105	105 100.0%	0 0.0%	0 0.0%	0 0.0%	105 100.0%	104 99.0%	104 99.0%	105 100.0%	99 94.3%	90 85.7%
Barren	464	448 96.6%	6 1.3%	8 1.7%	2 0.4%	459 98.9%	369 79.5%	463 99.8%	461 99.4%	431 92.9%	227 48.9%
Bath	122	122 100.0%	0 0.0%	0 0.0%	0 0.0%	119 97.5%	52 42.6%	122 100.0%	122 100.0%	116 95.1%	23 18.9%
Bell	324	311 96.0%	1 0.3%	0 0.0%	12 3.7%	247 76.2%	94 29.0%	299 92.3%	302 93.2%	225 69.4%	51 15.7%
Boone	1,647	1,615 98.1%	6 0.4%	19 1.2%	7 0.4%	1,605 97.4%	1,292 78.4%	1,592 96.7%	1,595 96.8%	1,545 93.8%	1,119 67.9%
Bourbon	243	238 97.9%	1 0.4%	4 1.6%	0 0.0%	238 97.9%	188 77.4%	241 99.2%	240 98.8%	213 87.7%	128 52.7%
Boyd	496	480 96.8%	7 1.4%	3 0.6%	6 1.2%	467 94.2%	262 52.8%	469 94.6%	467 94.2%	421 84.9%	163 32.9%
Boyle	353	330 93.5%	20 5.7%	3 0.8%	0 0.0%	348 98.6%	299 84.7%	351 99.4%	351 99.4%	315 89.2%	173 49.0%
Bracken	106	102 96.2%	0 0.0%	2 1.9%	2 1.9%	104 98.1%	73 68.9%	104 98.1%	104 98.1%	97 91.5%	40 37.7%
Breathitt	161	160 99.4%	1 0.6%	0 0.0%	0 0.0%	158 98.1%	146 90.7%	161 100.0%	160 99.4%	153 95.0%	70 43.5%
Breckinridge	227	216 95.2%	0 0.0%	3 1.3%	8 3.5%	214 94.3%	205 90.3%	212 93.4%	219 96.5%	198 87.2%	92 40.5%
Bullitt	1,114	1076 96.6%	13 1.2%	12 1.1%	13 1.2%	1020 91.6%	1034 92.8%	1085 97.4%	1070 96.1%	1000 89.8%	822 73.8%
Butler	159	154 96.9%	0 0.0%	1 0.6%	4 2.5%	144 90.6%	99 62.3%	152 95.6%	154 96.9%	132 83.0%	76 47.8%
Caldwell	146	146 100.0%	0 0.0%	0 0.0%	0 0.0%	146 100.0%	113 77.4%	146 100.0%	146 100.0%	132 90.4%	48 32.9%
Calloway	314	305 97.1%	1 0.3%	8 2.5%	0 0.0%	309 98.4%	287 91.4%	310 98.7%	310 98.7%	303 96.5%	215 68.5%
Campbell	877	863 98.4%	5 0.6%	6 0.7%	3 0.3%	857 97.7%	709 80.8%	862 98.3%	864 98.5%	819 93.4%	636 72.5%
Carlisle	54	51 94.4%	0 0.0%	3 5.6%	0 0.0%	47 87.0%	29 53.7%	50 92.6%	51 94.4%	45 83.3%	24 44.4%

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Carroll	135	128 94.8%	3 2.2%	2 1.5%	2 1.5%	129 95.6%	78 57.8%	127 94.1%	127 94.1%	111 82.2%	48 35.6%
Carter	325	320 98.5%	2 0.6%	1 0.3%	2 0.6%	315 96.9%	210 64.6%	321 98.8%	320 98.5%	293 90.2%	80 24.6%
Casey	167	161 96.4%	1 0.6%	0 0.0%	5 3.0%	163 97.6%	157 94.0%	167 100.0%	166 99.4%	151 90.4%	52 31.1%
Christian	572	565 98.8%	1 0.2%	3 0.5%	3 0.5%	564 98.6%	451 78.8%	566 99.0%	565 98.8%	544 95.1%	390 68.2%
Clark	349	300 86.0%	1 0.3%	1 0.3%	47 13.5%	274 78.5%	62 17.8%	315 90.3%	319 91.4%	256 73.4%	31 8.9%
Clay	217	209 96.3%	1 0.5%	0 0.0%	7 3.2%	203 93.5%	123 56.7%	205 94.5%	203 93.5%	181 83.4%	37 17.1%
Clinton	109	103 94.5%	2 1.8%	2 1.8%	2 1.8%	99 90.8%	82 75.2%	104 95.4%	104 95.4%	94 86.2%	28 25.7%
Crittenden	80	78 97.5%	1 1.3%	1 1.3%	0 0.0%	77 96.3%	69 86.3%	74 92.5%	78 97.5%	74 92.5%	44 55.0%
Cumberland	59	55 93.2%	2 3.4%	1 1.7%	1 1.7%	n/a n/a	42 71.2%	55 93.2%	56 94.9%	54 91.5%	6 10.2%
Daviess	1,190	1,160 97.5%	6 0.5%	14 1.2%	10 0.8%	1,141 95.9%	657 55.2%	1,161 97.6%	1,162 97.6%	1,072 90.1%	458 38.5%
Edmonson	128	128 100.0%	0 0.0%	0 0.0%	0 0.0%	128 100.0%	102 79.7%	128 100.0%	128 100.0%	127 99.2%	113 88.3%
Elliott	82	82 100.0%	1 1.2%	0 0.0%	0 0.0%	82 100.0%	76 92.7%	81 98.8%	82 100.0%	72 87.8%	58 70.7%
Estill	162	162 100.0%	0 0.0%	2 1.2%	2 1.2%	137 84.6%	98 60.5%	153 94.4%	155 95.7%	127 78.4%	51 31.5%
Fayette	2,885	2,785 96.5%	21 0.7%	20 0.7%	59 2.0%	2,685 93.1%	1,135 39.3%	2,764 95.8%	2,790 96.7%	2,531 87.7%	1,135 39.3%
Fleming	155	154 99.4%	1 0.6%	0 0.0%	0 0.0%	155 100.0%	153 98.7%	155 100.0%	155 100.0%	144 92.9%	87 56.1%
Floyd	314	308 98.1%	0 0.0%	0 0.0%	6 1.9%	302 96.2%	270 86.0%	313 99.7%	304 96.8%	285 90.8%	196 62.4%
Franklin	456	438 96.1%	1 0.2%	2 0.4%	15 3.3%	379 83.1%	308 67.5%	432 94.7%	430 94.3%	353 77.4%	188 41.2%
Fulton	59	58 98.3%	0 0.0%	1 1.7%	0 0.0%	58 98.3%	49 83.1%	58 98.3%	58 98.3%	55 93.2%	33 55.9%
Gallatin	98	96 98.0%	0 0.0%	0 0.0%	2 2.0%	94 95.9%	63 64.3%	95 96.9%	95 96.9%	93 94.9%	43 43.9%
Garrard	186	185 99.5%	1 0.5%	0 0.0%	0 0.0%	175 94.1%	135 72.6%	186 100.0%	186 100.0%	170 91.4%	86 46.2%

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Grant	308	279 90.6%	15 4.9%	1 0.3%	13 4.2%	303 98.4%	250 81.2%	302 98.1%	303 98.4%	284 92.2%	183 59.4%
Graves	425	413 97.2%	2 0.5%	9 2.1%	1 0.2%	419 98.6%	359 84.5%	420 98.8%	420 98.8%	408 96.0%	231 54.4%
Grayson	278	278 100.0%	0 0.0%	0 0.0%	0 0.0%	278 100.0%	171 61.5%	278 100.0%	278 100.0%	259 93.2%	194 69.8%
Green	112	107 95.5%	1 0.9%	1 0.9%	3 2.7%	108 96.4%	76 67.9%	108 96.4%	106 94.6%	98 87.5%	51 45.5%
Greenup	432	420 97.2%	5 1.2%	5 1.2%	2 0.5%	429 99.3%	339 78.5%	431 99.8%	426 98.6%	408 94.4%	300 69.4%
Hancock	119	117 98.3%	0 0.0%	2 1.7%	0 0.0%	115 96.6%	117 98.3%	117 98.3%	117 98.3%	113 95.0%	67 56.3%
Hardin	1,155	1,066 92.3%	3 0.3%	15 1.3%	71 6.1%	1,061 91.9%	509 44.1%	1,099 95.2%	1,102 95.4%	1,012 87.6%	444 38.4%
Harlan	276	259 93.8%	2 0.7%	1 0.4%	14 5.1%	226 81.9%	117 42.4%	207 75.0%	257 93.1%	222 80.4%	82 29.7%
Harrison	200	195 97.5%	2 1.0%	2 1.0%	1 0.5%	198 99.0%	179 89.5%	198 99.0%	198 99.0%	188 94.0%	98 49.0%
Hart	181	168 92.8%	7 3.9%	0 0.0%	6 3.3%	170 93.9%	132 72.9%	173 95.6%	176 97.2%	161 89.0%	88 48.6%
Henderson	428	420 98.1%	2 0.5%	3 0.7%	3 0.7%	429 100.2%	153 35.7%	420 98.1%	429 100.2%	429 100.2%	97 22.7%
Henry	215	210 97.7%	2 0.9%	3 1.4%	0 0.0%	212 98.6%	159 74.0%	212 98.6%	214 99.5%	191 88.8%	121 56.3%
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%	46 85.2%	52 96.3%
Hopkins	537	531 98.9%	1 0.2%	5 0.9%	0 0.0%	524 97.6%	421 78.4%	532 99.1%	532 99.1%	509 94.8%	380 70.8%
Jackson	156	153 98.1%	3 1.9%	0 0.0%	0 0.0%	156 100.0%	130 83.3%	156 100.0%	156 100.0%	148 94.9%	70 44.9%
Jefferson	8,985	8,606 95.8%	40 0.4%	57 0.6%	285 3.2%	8,484 94.4%	4,858 54.1%	8,614 95.9%	8,640 96.2%	8,381 93.3%	4,180 46.5%
Jessamine	529	508 96.0%	9 1.7%	8 1.5%	4 0.8%	494 93.4%	389 73.5%	503 95.1%	514 97.2%	472 89.2%	275 52.0%
Johnson	322	302 93.8%	13 4.0%	1 0.3%	6 1.9%	246 76.4%	21 6.5%	301 93.5%	302 93.8%	232 72.0%	11 3.4%
Kenton	1,808	1,774 98.1%	12 0.7%	9 0.5%	13 0.7%	1,779 98.4%	1,120 61.9%	1,702 94.1%	1,782 98.6%	1,682 93.0%	986 54.5%
Knott	151	149 98.7%	1 0.7%	0 0.0%	1 0.7%	148 98.0%	103 68.2%	146 96.7%	148 98.0%	128 84.8%	26 17.2%

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Knox	312	292 93.6%	10 3.2%	7 2.2%	3 1.0%	260 83.3%	82 26.3%	304 97.4%	301 96.5%	233 74.7%	46 14.7%
LaRue	413	396 95.9%	0 0.0%	10 2.4%	7 1.7%	378 91.5%	140 33.9%	393 95.2%	398 96.4%	353 85.5%	141 34.1%
Laurel	633	616 97.3%	2 0.3%	4 0.6%	11 1.7%	519 82.0%	189 29.9%	594 93.8%	606 95.7%	468 73.9%	99 15.6%
Lawrence	148	146 98.6%	1 0.7%	0 0.0%	1 0.7%	147 99.3%	105 70.9%	146 98.6%	148 100.0%	132 89.2%	37 25.0%
Lee	77	75 97.4%	0 0.0%	1 1.3%	1 1.3%	73 94.8%	56 72.7%	76 98.7%	76 98.7%	69 89.6%	26 33.8%
Leslie	119	119 100.0%	0 0.0%	0 0.0%	0 0.0%	113 95.0%	80 67.2%	102 85.7%	113 95.0%	105 88.2%	45 37.8%
Letcher	234	227 97.0%	5 2.1%	2 0.9%	0 0.0%	228 97.4%	148 63.2%	233 99.6%	231 98.7%	215 91.9%	80 34.2%
Lewis	178	178 100.0%	0 0.0%	0 0.0%	0 0.0%	178 100.0%	136 76.4%	178 100.0%	177 99.4%	161 90.4%	83 46.6%
Lincoln	246	242 98.4%	2 0.8%	0 0.0%	2 0.8%	218 88.6%	170 69.1%	229 93.1%	229 93.1%	205 83.3%	76 30.9%
Livingston	84	84 100.0%	0 0.0%	0 0.0%	0 0.0%	n/a n/a	38 45.2%	83 98.8%	79 94.0%	73 86.9%	20 23.8%
Logan	263	261 99.2%	1 0.4%	1 0.4%	0 0.0%	261 99.2%	233 88.6%	260 98.9%	259 98.5%	247 93.9%	197 74.9%
Lyon	64	63 98.4%	0 0.0%	1 1.6%	0 0.0%	63 98.4%	53 82.8%	63 98.4%	63 98.4%	61 95.3%	34 53.1%
Madison	892	874 98.0%	6 0.7%	12 1.3%	0 0.0%	871 97.6%	659 73.9%	882 98.9%	878 98.4%	824 92.4%	425 47.6%
Magoffin	134	130 97.0%	0 0.0%	0 0.0%	4 3.0%	97 72.4%	21 15.7%	133 99.3%	133 99.3%	98 73.1%	28 20.9%
Marion	193	190 98.4%	1 0.5%	1 0.5%	1 0.5%	190 98.4%	190 98.4%	190 98.4%	189 97.9%	187 96.9%	33 17.1%
Marshall	315	310 98.4%	1 0.3%	2 0.6%	2 0.6%	302 95.9%	299 94.9%	303 96.2%	312 99.0%	295 93.7%	152 48.3%
Martin	118	112 94.9%	3 2.5%	0 0.0%	3 2.5%	115 97.5%	75 63.6%	115 97.5%	114 96.6%	108 91.5%	44 37.3%
Mason	191	184 96.3%	1 0.5%	0 0.0%	6 3.1%	181 94.8%	122 63.9%	187 97.9%	187 97.9%	163 85.3%	97 50.8%
McCracken	647	626 96.8%	11 1.7%	10 1.5%	0 0.0%	630 97.4%	430 66.5%	644 99.5%	629 97.2%	604 93.4%	213 32.9%
McCreary	188	188 100.0%	0 0.0%	0 0.0%	0 0.0%	185 98.4%	169 89.9%	188 100.0%	188 100.0%	174 92.6%	99 52.7%

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McLean	112	107 95.5%	3 2.7%	2 1.8%	0 0.0%	110 98.2%	107 95.5%	109 97.3%	109 97.3%	107 95.5%	70 62.5%
Meade	404	385 95.3%	15 3.7%	4 1.0%	0 0.0%	402 99.5%	398 98.5%	402 99.5%	402 99.5%	388 96.0%	226 55.9%
Menifee	60	59 98.3%	1 1.7%	0 0.0%	0 0.0%	60 100.0%	54 90.0%	60 100.0%	60 100.0%	59 98.3%	39 65.0%
Mercer	205	203 99.0%	1 0.5%	1 0.5%	0 0.0%	204 99.5%	192 93.7%	205 100.0%	205 100.0%	195 95.1%	71 34.6%
Metcalfe	129	128 99.2%	0 0.0%	1 0.8%	0 0.0%	128 99.2%	70 54.3%	127 98.4%	127 98.4%	125 96.9%	52 40.3%
Monroe	117	117 100.0%	0 0.0%	0 0.0%	0 0.0%	116 99.1%	99 84.6%	117 100.0%	116 99.1%	111 94.9%	36 30.8%
Montgomery	321	320 99.7%	0 0.0%	1 0.3%	0 0.0%	320 99.7%	262 81.6%	313 97.5%	320 99.7%	293 91.3%	127 39.6%
Morgan	141	138 97.9%	2 1.4%	1 0.7%	0 0.0%	139 98.6%	110 78.0%	141 100.0%	140 99.3%	134 95.0%	69 48.9%
Muhlenberg	316	308 97.5%	2 0.6%	0 0.0%	6 1.9%	300 94.9%	310 98.1%	304 96.2%	305 96.5%	287 90.8%	50 15.8%
Nelson	525	514 97.9%	5 1.0%	0 0.0%	6 1.1%	515 98.1%	421 80.2%	522 99.4%	517 98.5%	490 93.3%	299 57.0%
Nicholas	69	64 92.8%	0 0.0%	2 2.9%	3 4.3%	63 91.3%	65 94.2%	68 98.6%	68 98.6%	60 87.0%	28 40.6%
Ohio	237	232 97.9%	0 0.0%	2 0.8%	3 1.3%	226 95.4%	91 38.4%	231 97.5%	232 97.9%	217 91.6%	55 23.2%
Oldham	1,003	976 97.3%	4 0.4%	23 2.3%	0 0.0%	989 98.6%	954 95.1%	992 98.9%	992 98.9%	943 94.0%	516 51.4%
Owen	155	154 99.4%	0 0.0%	0 0.0%	1 0.6%	153 98.7%	106 68.4%	153 98.7%	155 100.0%	148 95.5%	48 31.0%
Owsley	40	40 100.0%	0 0.0%	0 0.0%	0 1.6%	40 100.0%	20 50.0%	40 100.0%	40 100.0%	33 82.5%	8 20.0%
Pendleton	188	187 99.5%	1 0.5%	0 0.0%	0 0.0%	187 99.5%	184 97.9%	186 98.9%	188 100.0%	167 88.8%	150 79.8%
Perry	323	295 91.3%	3 0.9%	4 1.2%	21 6.5%	296 91.6%	228 70.6%	312 96.6%	314 97.2%	111 34.4%	135 41.8%
Pike	618	610 98.7%	3 0.5%	4 0.6%	1 0.2%	608 98.4%	570 92.2%	607 98.2%	613 99.2%	593 96.0%	387 62.6%
Powell	145	128 88.3%	13 9.0%	2 1.4%	2 1.4%	124 85.5%	86 59.3%	n/a	140 96.6%	125 86.2%	26 17.9%
Pulaski	701	684 97.6%	4 0.6%	12 1.7%	1 0.1%	697 99.4%	665 94.9%	693 98.9%	698 99.6%	663 94.6%	334 47.6%

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Robertson	35	26 74.3%	0 0.0%	1 2.9%	8 22.9%	30 85.7%	21 60.0%	34 97.1%	35 100.0%	27 77.1%	17 48.6%
Rockcastle	202	188 93.1%	13 6.4%	1 0.5%	0 0.0%	199 98.5%	158 78.2%	198 98.0%	196 97.0%	182 90.1%	63 31.2%
Rowan	226	220 97.3%	1 0.4%	1 0.4%	4 1.8%	220 97.3%	65 28.8%	224 99.1%	223 98.7%	199 88.1%	58 25.7%
Russell	204	203 99.5%	1 0.5%	0 0.0%	0 0.0%	202 99.0%	139 68.1%	203 99.5%	203 99.5%	198 97.1%	42 20.6%
Scott	560	551 98.4%	0 0.0%	4 0.7%	5 0.9%	502 89.6%	291 52.0%	540 96.4%	538 96.1%	489 87.3%	256 45.7%
Shelby	481	472 98.1%	1 0.2%	7 1.5%	1 0.2%	462 96.0%	271 56.3%	471 97.9%	471 97.9%	437 90.9%	247 51.4%
Simpson	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Spencer	237	232 97.9%	1 0.4%	4 1.7%	0 0.0%	233 98.3%	190 80.2%	235 99.2%	236 99.6%	218 92.0%	144 60.8%
Taylor	277	270 97.5%	1 0.4%	5 1.8%	1 0.4%	275 99.3%	200 72.2%	274 98.9%	274 98.9%	263 94.9%	103 37.2%
Todd	112	111 99.1%	0 0.0%	0 0.0%	1 0.9%	111 99.1%	56 50.0%	112 100.0%	112 100.0%	107 95.5%	60 53.6%
Trigg	135	133 98.5%	0 0.0%	1 0.7%	1 0.7%	133 98.5%	72 53.3%	134 99.3%	133 98.5%	128 94.8%	58 43.0%
Trimble	71	68 95.8%	2 2.8%	0 0.0%	1 1.4%	71 100.0%	53 74.6%	71 100.0%	71 100.0%	67 94.4%	32 45.1%
Union	172	155 90.1%	13 7.6%	2 1.2%	2 1.2%	170 98.8%	123 71.5%	170 98.8%	169 98.3%	154 89.5%	76 44.2%
Warren	1,329	1,285 96.7%	11 0.8%	3 0.2%	30 2.3%	1,230 92.6%	899 67.6%	1,289 97.0%	1,291 97.1%	1,201 90.4%	749 56.4%
Washington	119	115 96.6%	0 0.0%	2 1.7%	2 1.7%	111 93.3%	75 63.0%	115 96.6%	115 96.6%	102 85.7%	27 22.7%
Wayne	207	205 99.0%	1 0.5%	1 0.5%	0 0.0%	205 99.0%	196 94.7%	207 100.0%	207 100.0%	198 95.7%	120 58.0%
Webster	143	143 100.0%	0 0.0%	0 0.0%	3 2.1%	142 99.3%	89 62.2%	143 100.0%	140 97.9%	127 88.8%	39 27.3%
Whitley	518	510 98.5%	2 0.4%	3 0.6%	3 0.6%	456 88.0%	266 51.4%	481 92.9%	493 95.2%	344 66.4%	124 23.9%
Wolfe	70	65 92.9%	0 0.0%	0 0.0%	5 7.1%	46 65.7%	38 54.3%	65 92.9%	65 92.9%	43 61.4%	7 10.0%
Woodford	273	271 99.3%	0 0.0%	2 0.7%	0 0.0%	271 99.3%	246 90.1%	270 98.9%	271 99.3%	261 95.6%	193 70.7%



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# **APPENDIX C**

## **KENTUCKY ANNUAL SCHOOL IMMUNIZATION SURVEY REPORT 2018 – 2019**



### **Changes in Percentage of Coverage Rates by Vaccine and Changes in Rank Order of Counties by Vaccine, Comparing Results of the 2017-2018 to the 2018-2019 Annual School Immunization Surveys, by County for Kindergarten**

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



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

Each of the age-specific reports for Kindergarten (Appendix C-1) provides the change in percentage of coverage rates for all six age-appropriate vaccinations surveyed, and the change in rank order of county rankings for all six age-appropriate vaccinations surveyed when comparing the results of the 2017-2018 to the 2018-2019 Annual School Immunization Surveys. Only kindergarten will be reflected in Appendix C as 2018-2019 was the first year seventh, eleventh, and twelfth grade data was collected.


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 percentage were highlighted in yellow. 
- Counties with a negative change in percentage 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 2017-2018 to 2018-2019 for all six 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 Branch to identify schools that have been successful with vaccination compliance for school aged children in the survey year.

If any of the age-appropriate HP 2020 or KIB 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. 

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

4+ DTap						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.4%</b>	<b>N/A</b>	<b>93.5%</b>	<b>N/A</b>	<b>1.2%</b>	<b>N/A</b>
Adair	98.8%	12	96.3%	55	-2.5%	-43
Allen	99.0%	8	95.0%	72	-4.0%	-64
Anderson	93.4%	82	98.0%	24	4.9%	58
Ballard	98.9%	10	100.0%	1	1.2%	9
Barren	97.9%	25	96.9%	44	-1.0%	-19
Bath	82.5%	113	88.8%	108	7.6%	5
Bell	88.9%	101	89.8%	101	1.1%	0
Boone	96.0%	60	97.0%	42	1.0%	18
Bourbon	97.7%	32	98.0%	24	0.3%	8
Boyd	93.8%	78	91.1%	99	-2.8%	-21
Boyle	96.5%	54	97.5%	36	1.1%	18
Bracken	94.6%	72	97.0%	42	2.6%	30
Breathitt	95.4%	64	93.6%	88	-1.9%	-24
Breckinridge	96.0%	61	89.4%	104	-6.9%	-43
Bullitt	95.5%	62	98.4%	16	3.0%	46
Butler	95.4%	65	94.9%	75	-0.5%	-10
Caldwell	97.9%	25	98.5%	14	0.7%	11
Calloway	97.1%	46	95.5%	64	-1.6%	-18
Campbell	97.6%	33	98.3%	18	0.7%	15
Carlisle	96.6%	50	92.5%	92	-4.3%	-42

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

County	4+ DTaP					
	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.4%</b>	<b>N/A</b>	<b>93.5%</b>	<b>N/A</b>	<b>1.2%</b>	<b>N/A</b>
Carroll	76.6%	116	95.4%	67	24.5%	49
Carter	98.1%	21	95.9%	59	-2.2%	-38
Casey	93.2%	83	98.0%	24	5.2%	59
Christian	92.5%	89	93.5%	89	1.1%	0
Clark	97.5%	34	95.4%	67	-2.2%	-33
Clay	88.1%	102	95.5%	64	8.4%	38
Clinton	89.6%	99	96.8%	47	8.0%	52
Crittenden	80.5%	115	92.1%	96	14.4%	19
Cumberland	88.9%	100	85.2%	113	-4.2%	-13
Daviess	91.4%	94	94.0%	82	2.9%	12
Edmonson	n/a	n/a	98.6%	11	n/a	n/a
Elliott	97.4%	36	97.3%	38	-0.1%	-2
Estill	87.5%	103	94.5%	79	8.0%	24
Fayette	97.4%	37	96.8%	47	-0.6%	-10
Fleming	98.7%	14	98.3%	18	-0.4%	-4
Floyd	96.9%	48	94.6%	78	-2.4%	-30
Franklin	98.9%	11	96.1%	58	-2.8%	-47
Fulton	100.0%	1	100.0%	1	0.0%	0
Gallatin	91.7%	91	98.2%	22	7.1%	69
Garrard	75.3%	117	80.8%	115	7.4%	2

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

4+ DTaP						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.4%	N/A	93.5%	N/A	1.2%	N/A
Grant	98.6%	16	98.2%	22	-0.4%	-6
Graves	97.4%	38	94.5%	79	-2.9%	-41
Grayson	96.5%	52	98.4%	16	2.0%	36
Green	98.1%	20	98.5%	14	0.4%	6
Greenup	94.7%	70	97.1%	40	2.5%	30
Hancock	99.0%	7	95.4%	67	-3.7%	-60
Hardin	86.7%	106	88.4%	109	2.0%	-3
Harlan	85.6%	110	80.9%	114	-5.4%	-4
Harrison	96.2%	57	97.6%	33	1.5%	24
Hart	95.2%	67	96.7%	49	1.6%	18
Henderson	93.2%	84	95.0%	72	2.0%	12
Henry	99.2%	5	96.6%	51	-2.6%	-46
Hickman	97.8%	29	100.0%	1	2.3%	28
Hopkins	95.0%	69	96.7%	49	1.7%	20
Jackson	97.2%	40	99.8%	5	2.6%	35
Jefferson	91.5%	93	91.8%	97	0.4%	-4
Jessamine	94.4%	73	92.2%	94	-2.3%	-21
Johnson	96.3%	56	92.8%	91	-3.6%	-35
Kenton	96.6%	51	93.3%	90	-3.4%	-39
Knott	87.0%	104	90.5%	100	4.0%	4

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

County	4+ DTaP					
	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.4%</b>	<b>N/A</b>	<b>93.5%</b>	<b>N/A</b>	<b>1.2%</b>	<b>N/A</b>
Knox	86.1%	107	75.5%	116	-12.4%	-9
LaRue	98.7%	13	95.5%	64	-3.3%	-51
Laurel	94.4%	74	94.9%	75	0.6%	-1
Lawrence	83.1%	112	58.7%	119	-29.3%	-7
Lee	95.2%	66	98.7%	9	3.6%	57
Leslie	96.1%	59	95.2%	71	-0.9%	-12
Letcher	96.5%	53	96.4%	53	-0.1%	0
Lewis	91.0%	95	95.9%	59	5.3%	36
Lincoln	97.2%	44	88.9%	107	-8.5%	-63
Livingston	94.1%	77	92.2%	94	-2.0%	-17
Logan	90.2%	98	93.7%	87	3.9%	11
Lyon	97.9%	22	97.3%	38	-0.6%	-16
Madison	95.5%	63	97.7%	30	2.4%	33
Magoffin	92.1%	90	95.7%	61	3.9%	29
Marion	97.3%	39	87.3%	111	-10.2%	-72
Marshall	93.5%	80	95.7%	61	2.4%	19
Martin	100.0%	1	97.6%	33	-2.4%	-32
Mason	94.7%	71	92.5%	92	-2.3%	-21
McCracken	93.6%	79	93.8%	85	0.2%	-6
McCreary	94.2%	75	94.9%	75	0.7%	0

\*Includes all schools who reported within a given county. "N/a" indicates did not report

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

County	4+ DTaP					
	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.4%</b>	<b>N/A</b>	<b>93.5%</b>	<b>N/A</b>	<b>1.2%</b>	<b>N/A</b>
McLean	99.2%	6	95.0%	72	-4.2%	-66
Meade	98.6%	15	97.8%	28	-0.8%	-13
Menifee	98.4%	18	97.6%	33	-0.9%	-15
Mercer	98.2%	19	96.4%	53	-1.9%	-34
Metcalfe	83.3%	111	93.9%	84	12.7%	27
Monroe	96.3%	55	99.3%	7	3.1%	48
Montgomery	97.8%	28	97.9%	27	0.1%	1
Morgan	97.2%	45	98.6%	11	1.5%	34
Muhlenberg	90.4%	96	87.9%	110	-2.8%	-14
Nelson	90.3%	97	93.8%	85	3.9%	12
Nicholas	n/a	n/a	98.9%	8	n/a	n/a
Ohio	86.1%	108	85.5%	112	-0.7%	-4
Oldham	97.9%	27	98.3%	18	0.5%	9
Owen	96.8%	49	96.9%	44	0.1%	5
Owsley	97.7%	31	89.7%	102	-8.2%	-71
Pendleton	97.9%	24	97.7%	30	-0.2%	-6
Perry	86.7%	105	89.6%	103	3.4%	2
Pike	97.5%	35	98.6%	11	1.2%	24
Powell	91.7%	91	94.0%	82	2.5%	9
Pulaski	97.2%	40	97.8%	28	0.6%	12

\*Includes all schools who reported within a given county. "N/a" indicates did not report

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

4+ DTaP						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.4%	N/A	93.5%	N/A	1.2%	N/A
Robertson	100.0%	1	100.0%	1	0.0%	0
Rockcastle	98.6%	17	67.1%	118	-31.9%	-101
Rowan	93.4%	81	50.6%	120	-45.8%	-39
Russell	97.9%	22	98.3%	18	0.4%	4
Scott	73.1%	118	94.5%	79	29.3%	39
Shelby	96.2%	58	96.3%	55	0.2%	3
Simpson	97.7%	30	96.6%	51	-1.1%	-21
Spencer	98.9%	9	97.7%	30	-1.2%	-21
Taylor	97.1%	47	95.6%	63	-1.5%	-16
Todd	92.7%	86	95.3%	70	2.9%	16
Trigg	95.1%	68	97.1%	40	2.1%	28
Trimble	92.7%	86	96.3%	55	3.9%	31
Union	92.8%	85	96.9%	44	4.4%	41
Warren	80.8%	114	89.0%	105	10.2%	9
Washington	92.7%	86	98.7%	9	6.5%	77
Wayne	99.6%	4	99.6%	6	0.0%	-2
Webster	85.6%	109	89.0%	105	3.9%	4
Whitley	97.2%	40	91.4%	98	-6.0%	-58
Wolfe	94.2%	76	74.5%	117	-20.9%	-41
Woodford	97.2%	43	97.5%	36	0.3%	7

\*Includes all schools who reported within a given county.



**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ HepB						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	92.9%	N/A	0.2%	N/A
Adair	100.0%	1	98.4%	27	-1.6%	-26
Allen	99.5%	10	95.0%	71	-4.5%	-61
Anderson	93.9%	80	99.0%	18	5.5%	62
Ballard	100.0%	1	100.0%	1	0.0%	0
Barren	97.7%	39	95.1%	69	-2.6%	-30
Bath	82.5%	114	88.8%	101	7.6%	13
Bell	88.9%	101	93.2%	85	4.9%	16
Boone	96.7%	62	97.5%	42	0.8%	20
Bourbon	98.0%	30	98.8%	21	0.8%	9
Boyd	93.0%	85	90.9%	95	-2.3%	-10
Boyle	97.7%	38	98.9%	19	1.2%	19
Bracken	94.6%	75	95.5%	63	1.0%	12
Breathitt	95.4%	67	94.2%	77	-1.3%	-10
Breckinridge	94.7%	73	90.4%	96	-4.5%	-23
Bullitt	95.0%	71	98.3%	30	3.5%	41
Butler	95.4%	68	95.4%	65	0.0%	3
Caldwell	97.9%	35	100.0%	1	2.2%	34
Calloway	97.4%	49	96.0%	56	-1.4%	-7
Campbell	97.9%	33	98.0%	34	0.1%	-1
Carlisle	98.3%	26	94.0%	79	-4.4%	-53

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

County	3+ HepB					
	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.7%</b>	<b>N/A</b>	<b>92.9%</b>	<b>N/A</b>	<b>0.2%</b>	<b>N/A</b>
Carroll	83.0%	112	95.4%	65	14.9%	47
Carter	98.4%	24	94.7%	73	-3.7%	-49
Casey	91.9%	92	97.5%	42	6.1%	50
Christian	92.9%	86	92.3%	91	-0.7%	-5
Clark	98.4%	25	93.0%	87	-5.4%	-62
Clay	91.0%	96	95.3%	67	4.7%	29
Clinton	93.6%	83	97.6%	40	4.3%	43
Crittenden	67.5%	118	91.1%	92	34.9%	26
Cumberland	90.5%	98	79.0%	115	-12.7%	-17
Daviess	92.3%	91	92.6%	89	0.4%	2
Edmonson	n/a	n/a	100.0%	1	n/a	n/a
Elliott	98.7%	17	95.9%	59	-2.9%	-42
Estill	86.1%	107	94.5%	74	9.7%	33
Fayette	97.5%	48	96.8%	50	-0.7%	-2
Fleming	98.7%	17	98.3%	30	-0.4%	-13
Floyd	97.6%	43	96.6%	52	-1.0%	-9
Franklin	99.5%	9	96.1%	55	-3.5%	-46
Fulton	100.0%	1	100.0%	1	0.0%	0
Gallatin	97.2%	54	100.0%	1	2.9%	53
Garrard	75.3%	116	85.9%	110	14.1%	6

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ HepB						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	92.9%	N/A	0.2%	N/A
Grant	98.6%	20	98.6%	24	0.0%	-4
Graves	97.8%	36	92.7%	88	-5.3%	-52
Grayson	97.9%	31	98.4%	27	0.5%	4
Green	97.1%	56	99.3%	16	2.3%	40
Greenup	97.4%	51	98.0%	34	0.6%	17
Hancock	98.0%	28	93.5%	84	-4.6%	-56
Hardin	86.8%	103	88.0%	103	1.4%	0
Harlan	84.5%	110	82.7%	113	-2.1%	-3
Harrison	95.7%	65	98.8%	21	3.2%	44
Hart	94.0%	79	98.9%	19	5.2%	60
Henderson	91.6%	93	94.3%	75	3.0%	18
Henry	98.8%	14	95.7%	61	-3.1%	-47
Hickman	97.8%	37	100.0%	1	2.3%	36
Hopkins	95.6%	66	97.2%	46	1.7%	20
Jackson	97.6%	41	99.8%	11	2.2%	30
Jefferson	91.5%	94	91.0%	94	-0.5%	0
Jessamine	93.9%	81	93.9%	81	0.0%	0
Johnson	96.9%	59	93.8%	83	-3.2%	-24
Kenton	96.9%	60	93.2%	85	-3.8%	-25
Knott	86.4%	104	86.4%	108	0.0%	-4

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ HepB						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	92.9%	N/A	0.2%	N/A
Knox	82.6%	113	74.6%	116	-9.7%	-3
LaRue	98.7%	16	95.5%	63	-3.3%	-47
Laurel	92.8%	88	84.4%	112	-9.0%	-24
Lawrence	89.3%	99	59.2%	119	-33.7%	-20
Lee	95.2%	70	98.7%	23	3.6%	47
Leslie	97.4%	50	91.1%	92	-6.5%	-42
Letcher	98.0%	29	98.4%	27	0.4%	2
Lewis	89.1%	100	94.1%	78	5.6%	22
Lincoln	97.2%	55	88.3%	102	-9.1%	-47
Livingston	91.2%	95	86.7%	106	-4.9%	-11
Logan	85.8%	108	96.0%	56	11.8%	52
Lyon	100.0%	1	97.3%	45	-2.7%	-44
Madison	96.2%	64	98.0%	34	1.9%	30
Magoffin	81.5%	115	86.2%	109	5.8%	6
Marion	97.3%	52	85.1%	111	-12.5%	-59
Marshall	92.4%	89	96.2%	54	4.1%	35
Martin	100.0%	1	100.0%	1	0.0%	0
Mason	93.6%	82	92.5%	90	-1.2%	-8
McCracken	95.3%	69	79.6%	114	-16.4%	-45
McCreary	94.7%	74	96.6%	52	2.0%	22

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

County	3+ HepB					
	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	92.9%	N/A	0.2%	N/A
McLean	99.2%	11	97.0%	47	-2.2%	-36
Meade	99.0%	12	97.5%	42	-1.5%	-30
Menifee	98.4%	23	97.6%	40	-0.9%	-17
Mercer	98.7%	19	96.0%	56	-2.7%	-37
Metcalfe	83.3%	111	93.9%	81	12.7%	30
Monroe	97.0%	58	98.6%	24	1.6%	34
Montgomery	97.5%	47	95.1%	69	-2.5%	-22
Morgan	97.9%	34	100.0%	1	2.2%	33
Muhlenberg	94.3%	76	89.1%	100	-5.5%	-24
Nelson	90.9%	97	94.3%	75	3.8%	22
Nicholas	n/a	n/a	96.8%	50	n/a	n/a
Ohio	86.4%	105	87.5%	104	1.3%	1
Oldham	97.6%	43	97.7%	38	0.1%	5
Owen	100.0%	1	95.3%	67	-4.7%	-66
Owsley	97.7%	40	94.9%	72	-2.8%	-32
Pendleton	98.6%	21	99.4%	14	0.8%	7
Perry	69.8%	117	89.6%	98	28.3%	19
Pike	97.6%	42	96.9%	48	-0.7%	-6
Powell	92.3%	90	94.0%	79	1.8%	11
Pulaski	98.2%	27	98.3%	30	0.1%	-3

\*Includes all schools who reported within a given county.

## 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ HepB						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	92.9%	N/A	0.2%	N/A
Robertson	100.0%	1	100.0%	1	0.0%	0
Rockcastle	97.6%	43	62.7%	118	-35.8%	-75
Rowan	94.3%	77	50.4%	120	-46.5%	-43
Russell	98.8%	14	97.9%	37	-0.9%	-23
Scott	88.0%	102	89.9%	97	2.2%	5
Shelby	96.6%	63	95.7%	61	-0.9%	2
Simpson	97.2%	53	99.6%	12	2.4%	41
Spencer	98.9%	13	99.1%	17	0.2%	-4
Taylor	97.1%	57	95.9%	59	-1.2%	-2
Todd	93.4%	84	97.7%	38	4.6%	46
Trigg	97.9%	31	98.6%	24	0.7%	7
Trimble	94.1%	78	100.0%	1	6.2%	77
Union	92.8%	87	96.9%	48	4.4%	39
Warren	84.8%	109	86.6%	107	2.2%	2
Washington	94.9%	72	99.4%	14	4.8%	58
Wayne	99.6%	8	99.6%	12	0.0%	-4
Webster	86.2%	106	87.0%	105	0.9%	1
Whitley	96.9%	61	89.3%	99	-7.8%	-38
Wolfe	98.6%	22	74.5%	117	-24.4%	-95
Woodford	97.6%	46	98.1%	33	0.6%	13

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ Polio						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.7%</b>	<b>N/A</b>	<b>93.6%</b>	<b>N/A</b>	<b>1.0%</b>	<b>N/A</b>
Adair	98.8%	17	97.4%	43	-1.4%	-26
Allen	99.0%	11	95.4%	68	-3.6%	-57
Anderson	92.5%	88	98.3%	24	6.3%	64
Ballard	98.9%	15	100.0%	1	1.2%	14
Barren	98.0%	31	97.1%	48	-1.0%	-17
Bath	82.5%	112	90.0%	100	9.1%	12
Bell	88.9%	99	90.7%	96	2.1%	3
Boone	96.4%	61	97.6%	39	1.2%	22
Bourbon	98.9%	13	98.4%	23	-0.5%	-10
Boyd	94.5%	76	92.9%	90	-1.7%	-14
Boyle	97.1%	52	97.8%	36	0.7%	16
Bracken	96.4%	62	97.0%	50	0.7%	12
Breathitt	96.1%	67	95.4%	68	-0.7%	-1
Breckinridge	96.9%	55	90.4%	99	-6.7%	-44
Bullitt	95.9%	68	98.6%	18	2.8%	50
Butler	95.4%	70	96.0%	61	0.6%	9
Caldwell	97.9%	37	100.0%	1	2.2%	36
Calloway	97.1%	53	96.0%	61	-1.1%	-8
Campbell	97.8%	39	98.3%	24	0.5%	15
Carlisle	98.3%	24	89.6%	102	-8.9%	-78

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ Polio						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	93.6%	N/A	1.0%	N/A
Carroll	77.8%	116	96.7%	54	24.3%	62
Carter	98.7%	20	95.6%	67	-3.1%	-47
Casey	93.2%	83	98.0%	32	5.2%	51
Christian	93.4%	81	94.5%	79	1.2%	2
Clark	97.5%	46	95.0%	76	-2.6%	-30
Clay	90.3%	94	95.3%	72	5.5%	22
Clinton	88.8%	100	97.6%	39	9.9%	61
Crittenden	79.2%	115	91.1%	94	15.0%	21
Cumberland	88.9%	97	84.0%	113	-5.5%	-16
Daviess	91.6%	91	94.0%	82	2.7%	9
Edmonson	n/a	n/a	99.3%	10	n/a	n/a
Elliott	97.4%	47	97.3%	44	-0.1%	3
Estill	88.9%	97	94.5%	79	6.3%	18
Fayette	97.7%	43	97.1%	48	-0.6%	-5
Fleming	98.7%	19	98.8%	15	0.1%	4
Floyd	97.6%	44	95.9%	65	-1.8%	-21
Franklin	99.5%	7	96.2%	59	-3.4%	-52
Fulton	100.0%	1	100.0%	1	0.0%	0
Gallatin	94.4%	77	98.2%	28	4.0%	49
Garrard	74.7%	117	80.8%	115	8.1%	2

\*Includes all schools who reported within a given county.



## 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ Polio						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.7%</b>	<b>N/A</b>	<b>93.6%</b>	<b>N/A</b>	<b>1.0%</b>	<b>N/A</b>
Grant	98.6%	21	98.2%	28	-0.4%	-7
Graves	97.6%	45	93.5%	85	-4.2%	-40
Grayson	96.8%	57	98.1%	30	1.3%	27
Green	98.1%	28	100.0%	1	2.0%	27
Greenup	95.1%	71	97.5%	42	2.5%	29
Hancock	99.0%	10	95.4%	68	-3.7%	-58
Hardin	87.0%	104	88.1%	106	1.3%	-2
Harlan	86.6%	106	81.8%	114	-5.6%	-8
Harrison	96.7%	59	98.8%	15	2.2%	44
Hart	94.6%	75	97.2%	46	2.7%	29
Henderson	92.5%	87	95.3%	72	3.0%	15
Henry	99.6%	5	95.7%	66	-3.9%	-61
Hickman	97.8%	40	100.0%	1	2.3%	39
Hopkins	95.8%	69	97.2%	46	1.5%	23
Jackson	98.0%	32	90.5%	97	-7.7%	-65
Jefferson	92.1%	89	92.1%	92	0.0%	-3
Jessamine	96.2%	66	90.9%	95	-5.5%	-29
Johnson	96.3%	65	93.5%	85	-2.9%	-20
Kenton	97.0%	54	93.8%	84	-3.3%	-30
Knott	87.6%	102	92.5%	91	5.6%	11

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ Polio						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.7%</b>	<b>N/A</b>	<b>93.6%</b>	<b>N/A</b>	<b>1.0%</b>	<b>N/A</b>
Knox	85.6%	108	75.5%	116	-11.8%	-8
LaRue	98.7%	18	96.0%	61	-2.8%	-43
Laurel	94.7%	74	96.2%	59	1.6%	15
Lawrence	84.2%	110	59.2%	119	-29.7%	-9
Lee	87.3%	103	98.7%	17	13.1%	86
Leslie	98.1%	30	96.0%	61	-2.1%	-31
Letcher	98.0%	32	98.0%	32	0.0%	0
Lewis	91.7%	90	96.5%	56	5.3%	34
Lincoln	97.9%	36	88.9%	104	-9.2%	-68
Livingston	92.7%	86	86.7%	112	-6.4%	-26
Logan	91.3%	92	95.4%	68	4.5%	24
Lyon	97.9%	34	97.3%	44	-0.6%	-10
Madison	96.5%	60	98.0%	32	1.6%	28
Magoffin	82.1%	114	86.8%	111	5.7%	3
Marion	97.7%	41	87.3%	108	-10.7%	-67
Marshall	93.5%	80	95.1%	75	1.7%	5
Martin	100.0%	1	99.2%	12	-0.8%	-11
Mason	96.3%	64	94.7%	77	-1.6%	-13
McCracken	91.3%	93	93.1%	89	2.0%	4
McCreary	95.1%	71	97.0%	50	2.0%	21

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ Polio						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>92.7%</b>	<b>N/A</b>	<b>93.6%</b>	<b>N/A</b>	<b>1.0%</b>	<b>N/A</b>
McLean	98.3%	24	97.0%	50	-1.3%	-26
Meade	99.0%	11	97.8%	36	-1.2%	-25
Menifee	98.4%	23	97.6%	39	-0.9%	-16
Mercer	98.2%	26	94.6%	78	-3.7%	-52
Metcalfe	83.3%	111	93.9%	83	12.7%	28
Monroe	96.3%	63	99.3%	10	3.1%	53
Montgomery	96.9%	56	99.1%	13	2.3%	43
Morgan	97.2%	51	98.6%	18	1.5%	33
Muhlenberg	90.1%	96	88.8%	105	-1.4%	-9
Nelson	90.3%	94	94.1%	81	4.2%	13
Nicholas	n/a	n/a	97.9%	35	n/a	n/a
Ohio	86.4%	107	87.2%	109	0.9%	-2
Oldham	97.9%	38	98.6%	18	0.8%	20
Owen	99.2%	8	97.7%	38	-1.5%	-30
Owsley	100.0%	1	87.2%	109	-12.8%	-108
Pendleton	98.6%	22	96.5%	56	-2.1%	-34
Perry	88.5%	101	90.5%	97	2.3%	4
Pike	98.1%	28	93.2%	88	-5.0%	-60
Powell	93.0%	84	93.3%	87	0.4%	-3
Pulaski	98.1%	27	98.3%	24	0.2%	3

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

3+ Polio						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	92.7%	N/A	93.6%	N/A	1.0%	N/A
Robertson	100.0%	1	100.0%	1	0.0%	0
Rockcastle	99.0%	9	67.1%	118	-32.2%	-109
Rowan	93.7%	79	50.8%	120	-45.8%	-41
Russell	98.8%	16	99.1%	13	0.3%	3
Scott	73.8%	118	89.2%	103	20.9%	15
Shelby	96.8%	58	96.6%	55	-0.2%	3
Simpson	97.7%	42	98.3%	24	0.6%	18
Spencer	98.9%	14	98.6%	18	-0.3%	-4
Taylor	97.4%	48	95.3%	72	-2.2%	-24
Todd	93.4%	82	96.9%	53	3.8%	29
Trigg	97.2%	50	98.6%	18	1.5%	32
Trimble	94.1%	78	100.0%	1	6.2%	77
Union	92.8%	85	96.5%	56	4.0%	29
Warren	82.2%	113	88.1%	106	7.2%	7
Washington	94.9%	73	99.4%	9	4.8%	64
Wayne	99.6%	6	99.6%	8	0.0%	-2
Webster	86.7%	105	89.7%	101	3.4%	4
Whitley	97.2%	49	91.6%	93	-5.8%	-44
Wolfe	84.8%	109	73.4%	117	-13.4%	-8
Woodford	97.9%	35	98.1%	30	0.2%	5

\*Includes all schools who reported within a given county.

## 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 MMR						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>91.5%</b>	<b>N/A</b>	<b>92.9%</b>	<b>N/A</b>	<b>1.5%</b>	<b>N/A</b>
Adair	100.0%	1	96.9%	42	-3.1%	-41
Allen	99.0%	8	94.3%	71	-4.7%	-63
Anderson	92.9%	72	97.6%	27	5.0%	45
Ballard	100.0%	1	100.0%	1	0.0%	0
Barren	97.3%	26	95.4%	60	-2.0%	-34
Bath	80.8%	111	80.6%	114	-0.3%	-3
Bell	87.2%	98	90.1%	98	3.3%	0
Boone	96.2%	51	96.6%	47	0.5%	4
Bourbon	97.4%	25	98.0%	87	-5.1%	-62
Boyd	94.3%	64	92.4%	25	3.7%	39
Boyle	96.8%	36	97.8%	25	1.1%	11
Bracken	91.8%	79	95.5%	57	4.0%	22
Breathitt	91.5%	81	93.6%	83	2.3%	-2
Breckinridge	94.7%	63	89.4%	104	-5.6%	-41
Bullitt	94.1%	67	97.0%	41	3.1%	26
Butler	91.5%	82	94.3%	71	3.1%	11
Caldwell	96.4%	45	100.0%	1	3.7%	44
Calloway	97.4%	23	96.3%	49	-1.1%	-26
Campbell	97.7%	19	97.9%	20	0.2%	-1
Carlisle	96.6%	41	86.6%	107	-10.4%	-66

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 MMR						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>91.5%</b>	<b>N/A</b>	<b>92.9%</b>	<b>N/A</b>	<b>1.5%</b>	<b>N/A</b>
Carroll	80.7%	112	94.0%	75	16.5%	37
Carter	97.4%	24	94.7%	67	-2.8%	-43
Casey	91.9%	78	97.5%	29	6.1%	49
Christian	91.4%	83	94.3%	71	3.2%	12
Clark	95.1%	60	93.8%	81	-1.3%	-21
Clay	89.9%	92	94.0%	75	4.5%	17
Clinton	91.2%	84	96.0%	54	5.3%	30
Crittenden	79.2%	113	90.1%	98	13.7%	15
Cumberland	90.5%	87	84.0%	110	-7.2%	-23
Daviess	75.9%	116	91.7%	91	20.9%	25
Edmonson	n/a	#VALUE!	97.9%	20	n/a	n/a
Elliott	98.7%	11	94.6%	69	-4.2%	-58
Estill	86.1%	101	93.9%	78	9.0%	23
Fayette	96.6%	40	95.6%	56	-1.1%	-16
Fleming	98.1%	14	98.8%	10	0.7%	4
Floyd	97.1%	33	95.5%	57	-1.6%	-24
Franklin	96.8%	36	96.1%	51	-0.7%	-15
Fulton	100.0%	1	100.0%	1	0.0%	0
Gallatin	96.3%	47	100.0%	1	3.8%	46
Garrard	70.0%	117	82.3%	113	17.6%	4

\*Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 MMR						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	91.5%	N/A	92.9%	N/A	1.5%	N/A
Grant	97.9%	17	97.9%	20	0.0%	-3
Graves	96.2%	50	93.5%	84	-2.8%	-34
Grayson	97.2%	31	96.2%	50	-1.0%	-19
Green	95.2%	59	99.3%	8	4.4%	51
Greenup	95.9%	54	97.5%	29	1.7%	25
Hancock	99.0%	7	94.4%	70	-4.7%	-63
Hardin	84.0%	105	86.8%	105	3.3%	0
Harlan	84.0%	106	79.2%	115	-5.7%	-9
Harrison	96.2%	49	98.4%	13	2.3%	36
Hart	93.4%	70	96.1%	51	2.9%	19
Henderson	92.4%	75	93.7%	82	1.4%	-7
Henry	98.8%	10	94.7%	67	-4.2%	-57
Hickman	97.8%	18	100.0%	1	2.3%	17
Hopkins	64.1%	118	95.2%	62	48.6%	56
Jackson	96.5%	43	99.7%	6	3.4%	37
Jefferson	90.3%	89	90.7%	95	0.5%	-6
Jessamine	95.0%	62	93.9%	78	-1.1%	-16
Johnson	95.3%	58	92.8%	86	-2.7%	-28
Kenton	96.6%	41	92.9%	85	-3.8%	-44
Knott	85.3%	103	91.5%	92	7.3%	11

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 MMR						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>91.5%</b>	<b>N/A</b>	<b>92.9%</b>	<b>N/A</b>	<b>1.5%</b>	<b>N/A</b>
Knox	86.1%	100	76.7%	66	10.2%	34
LaRue	97.5%	22	94.9%	60	-2.1%	-38
Laurel	92.2%	76	95.4%	60	3.5%	16
Lawrence	83.1%	108	54.9%	118	-33.9%	-10
Lee	92.1%	77	97.3%	33	5.7%	44
Leslie	96.1%	53	95.2%	62	-0.9%	-9
Letcher	95.7%	55	97.2%	36	1.6%	19
Lewis	93.6%	69	97.1%	38	3.8%	31
Lincoln	95.4%	57	83.7%	112	-12.3%	-55
Livingston	97.1%	35	86.7%	106	-10.7%	-71
Logan	82.7%	109	95.1%	64	15.0%	45
Lyon	97.9%	15	97.3%	33	-0.6%	-18
Madison	93.8%	68	97.1%	38	3.5%	30
Magoffin	77.8%	115	85.6%	108	10.1%	7
Marion	97.3%	29	83.8%	111	-13.8%	-82
Marshall	90.2%	90	94.3%	71	4.5%	19
Martin	90.2%	91	96.8%	46	7.4%	45
Mason	90.4%	88	89.9%	100	-0.6%	-12
McCracken	93.0%	71	89.9%	100	-3.3%	-29
McCreary	90.7%	86	91.9%	90	1.4%	-4

\*Includes all schools who reported within a given county.



**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 MMR						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	91.5%	N/A	92.9%	N/A	1.5%	N/A
McLean	97.3%	28	98.0%	17	0.7%	11
Meade	99.0%	8	97.2%	36	-1.8%	-28
Menifee	98.4%	12	97.6%	27	-0.9%	-15
Mercer	97.3%	26	96.9%	42	-0.4%	-16
Metcalfe	78.1%	114	93.9%	78	20.2%	36
Monroe	95.6%	56	97.3%	33	1.8%	23
Montgomery	95.0%	61	97.9%	20	3.0%	41
Morgan	96.5%	44	99.3%	8	3.0%	36
Muhlenberg	86.8%	99	90.8%	94	4.6%	5
Nelson	87.7%	97	92.4%	87	5.4%	10
Nicholas	n/a	n/a	97.9%	20	n/a	n/a
Ohio	83.9%	107	84.6%	109	0.8%	-2
Oldham	97.6%	21	97.8%	25	0.2%	-4
Owen	99.2%	6	96.9%	42	-2.3%	-36
Owsley	97.7%	20	89.7%	102	-8.2%	-82
Pendleton	97.2%	32	98.2%	14	1.1%	18
Perry	85.8%	102	90.7%	95	5.7%	7
Pike	96.3%	48	98.2%	14	2.0%	34
Powell	89.1%	95	91.3%	93	2.5%	2
Pulaski	97.1%	33	98.0%	17	0.9%	16

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 MMR						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	91.5%	N/A	92.9%	N/A	1.5%	N/A
Robertson	100.0%	1	96.6%	47	-3.4%	-46
Rockcastle	94.3%	65	64.7%	117	-31.4%	-52
Rowan	91.0%	85	50.2%	119	-44.8%	-34
Russell	97.9%	15	97.4%	32	-0.5%	-17
Scott	89.4%	93	94.0%	75	5.1%	18
Shelby	96.2%	51	96.1%	51	-0.1%	0
Simpson	96.8%	36	98.7%	11	2.0%	25
Spencer	99.4%	5	98.6%	12	-0.8%	-7
Taylor	96.3%	46	95.0%	65	-1.4%	-19
Todd	92.7%	74	96.9%	42	4.6%	32
Trigg	91.6%	80	97.1%	38	6.1%	42
Trimble	94.1%	66	97.5%	29	3.6%	37
Union	92.8%	73	95.7%	55	3.1%	18
Warren	89.3%	94	92.2%	89	3.3%	5
Washington	89.0%	96	95.5%	57	7.3%	39
Wayne	98.3%	13	99.6%	7	1.3%	6
Webster	84.5%	104	89.7%	102	6.1%	2
Whitley	96.7%	39	90.5%	97	-6.4%	-58
Wolfe	81.9%	110	71.3%	116	-12.9%	-6
Woodford	97.2%	30	98.1%	16	0.9%	14

\* Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 Varicella						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
<b>Kentucky (Total)</b>	<b>90.9%</b>	<b>N/A</b>	<b>92.3%</b>	<b>N/A</b>	<b>1.5%</b>	<b>N/A</b>
Adair	100.0%	1	97.4%	34	-2.6%	-33
Allen	99.0%	8	94.3%	71	-4.7%	-63
Anderson	90.6%	86	97.3%	35	7.4%	51
Ballard	98.9%	9	100.0%	1	1.2%	8
Barren	97.5%	22	95.6%	55	-1.9%	-33
Bath	80.8%	110	83.1%	112	2.8%	-2
Bell	86.9%	100	88.5%	98	1.9%	2
Boone	95.8%	50	96.5%	46	0.7%	4
Bourbon	98.4%	13	97.6%	24	-0.9%	-11
Boyd	91.5%	81	91.7%	88	0.2%	-7
Boyle	93.9%	66	97.8%	21	4.2%	45
Bracken	90.9%	83	95.5%	56	5.0%	27
Breathitt	92.2%	76	92.5%	84	0.4%	-8
Breckinridge	93.4%	69	89.0%	96	-4.7%	-27
Bullitt	93.7%	67	97.6%	24	4.2%	43
Butler	92.1%	77	94.3%	71	2.4%	6
Caldwell	96.4%	39	99.2%	9	2.9%	30
Calloway	96.8%	33	95.5%	56	-1.3%	-23
Campbell	97.0%	27	97.5%	30	0.6%	-3
Carlisle	96.6%	36	88.1%	101	-8.8%	-65

\* Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 Varicella						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	90.9%	N/A	92.3%	N/A	1.5%	N/A
Carroll	77.2%	112	94.7%	65	22.7%	47
Carter	96.8%	34	94.4%	68	-2.4%	-34
Casey	91.3%	82	97.0%	41	6.2%	41
Christian	90.7%	84	94.2%	73	3.8%	11
Clark	95.1%	57	93.3%	78	-1.9%	-21
Clay	89.9%	89	95.3%	58	6.0%	31
Clinton	89.6%	91	96.0%	50	7.1%	41
Crittenden	76.6%	113	87.1%	102	13.7%	11
Cumberland	92.1%	78	82.7%	114	-10.2%	-36
Daviess	69.1%	117	86.2%	105	24.7%	12
Edmonson	n/a	n/a	98.6%	14	n/a	n/a
Elliott	98.7%	11	95.9%	52	-2.9%	-41
Estill	86.1%	101	83.4%	111	-3.1%	-10
Fayette	96.4%	40	95.0%	61	-1.5%	-21
Fleming	96.8%	32	98.8%	12	2.1%	20
Floyd	96.9%	28	96.6%	45	-0.3%	-17
Franklin	97.9%	17	95.9%	52	-2.1%	-35
Fulton	100.0%	1	100.0%	1	0.0%	0
Gallatin	96.3%	42	100.0%	1	3.8%	41
Garrard	67.9%	118	82.8%	113	22.0%	5

\*Includes all schools who reported within a given county.

### 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 Varicella						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	90.9%	N/A	92.3%	N/A	1.5%	N/A
Grant	97.2%	25	98.2%	17	1.1%	8
Graves	96.2%	46	93.1%	80	-3.2%	-34
Grayson	96.8%	31	97.5%	30	0.7%	1
Green	94.2%	62	99.3%	7	5.4%	55
Greenup	95.5%	55	96.2%	47	0.7%	8
Hancock	99.0%	7	94.4%	68	-4.7%	-61
Hardin	83.5%	107	86.5%	104	3.6%	3
Harlan	84.0%	105	79.5%	115	-5.3%	-10
Harrison	96.2%	45	98.4%	15	2.3%	30
Hart	92.8%	72	97.2%	38	4.7%	34
Henderson	92.5%	74	94.1%	74	1.7%	0
Henry	98.0%	16	95.7%	54	-2.4%	-38
Hickman	97.8%	21	100.0%	1	2.3%	20
Hopkins	93.9%	65	94.6%	66	0.7%	-1
Jackson	96.5%	37	99.0%	11	2.6%	26
Jefferson	89.0%	93	90.0%	93	1.1%	0
Jessamine	94.0%	64	92.6%	82	-1.5%	-18
Johnson	95.7%	53	92.5%	84	-3.3%	-31
Kenton	96.3%	41	90.5%	91	-6.1%	-50
Knott	87.0%	98	92.0%	87	5.7%	11

\*Includes all schools who reported within a given county.

## 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 Varicella						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	90.9%	N/A	92.3%	N/A	1.5%	N/A
Knox	84.2%	103	74.4%	116	-11.7%	-13
LaRue	96.2%	44	94.4%	68	-1.9%	-24
Laurel	94.3%	61	95.0%	61	0.8%	0
Lawrence	83.1%	108	54.9%	119	-33.9%	-11
Lee	90.5%	87	98.7%	13	9.1%	74
Leslie	96.1%	47	92.7%	81	-3.5%	-34
Letcher	95.7%	52	97.6%	24	2.0%	28
Lewis	91.7%	79	95.3%	58	4.0%	21
Lincoln	95.8%	51	84.4%	108	-11.9%	-57
Livingston	95.6%	54	85.6%	106	-10.5%	-52
Logan	82.1%	109	94.9%	63	15.6%	46
Lyon	97.9%	17	97.3%	35	-0.6%	-18
Madison	92.7%	73	97.2%	38	4.9%	35
Magoffin	76.5%	114	84.4%	108	10.3%	6
Marion	97.3%	24	85.1%	107	-12.5%	-83
Marshall	88.9%	94	93.5%	77	5.2%	17
Martin	93.2%	70	99.2%	9	6.5%	61
Mason	88.3%	96	86.8%	103	-1.7%	-7
McCracken	89.6%	90	88.8%	97	-0.9%	-7
McCreary	90.2%	88	91.1%	89	1.0%	-1

\* Includes all schools who reported within a given county.

## 2018-2019 Annual School Immunization Survey--Kindergarten Results

Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 Varicella						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	90.9%	N/A	92.3%	N/A	1.5%	N/A
McLean	99.2%	5	97.0%	41	-2.2%	-36
Meade	98.6%	12	96.7%	44	-2.0%	-32
Menifee	98.4%	13	97.6%	24	-0.9%	-11
Mercer	96.9%	29	96.0%	50	-0.9%	-21
Metcalfe	78.1%	111	93.9%	76	20.2%	35
Monroe	94.8%	60	97.3%	35	2.6%	25
Montgomery	95.0%	58	97.9%	19	3.0%	39
Morgan	96.5%	38	99.3%	7	3.0%	31
Muhlenberg	73.3%	116	88.2%	100	20.4%	16
Nelson	86.9%	99	92.2%	86	6.1%	13
Nicholas	n/a	n/a	97.9%	19	n/a	n/a
Ohio	75.6%	115	83.8%	110	10.9%	5
Oldham	97.5%	23	97.6%	24	0.1%	-1
Owen	98.4%	15	96.9%	43	-1.5%	-28
Owsley	98.8%	10	89.7%	95	-9.2%	-85
Pendleton	92.9%	71	98.2%	17	5.7%	54
Perry	84.0%	104	90.2%	92	7.4%	12
Pike	96.3%	43	98.4%	15	2.2%	28
Powell	88.5%	95	92.6%	82	4.7%	13
Pulaski	96.7%	35	97.6%	24	0.9%	11

\* Includes all schools who reported within a given county.

**2018-2019 Annual School Immunization Survey--Kindergarten Results**  
 Change in Percentage of Coverage Rate and County Rankings, Comparison of Survey Results from 2017-2018 to 2018-2019

2 Varicella						
County	2017-2018 Coverage Rate	2017-2018 County Ranking	2018-2019 Coverage Rate	2018-2019 County Ranking	Change in Percent (%) From 2017-2018 to 2018-2019	Change in County Rankings From 2017-2018 to 2018-2019
Kentucky (Total)	90.9%	N/A	92.3%	N/A	1.5%	N/A
Robertson	100.0%	1	100.0%	1	0.0%	0
Rockcastle	99.0%	6	65.4%	118	-34.0%	-112
Rowan	90.7%	85	50.0%	120	-44.9%	-35
Russell	97.9%	17	96.1%	48	-1.9%	-31
Scott	89.6%	92	93.3%	78	4.1%	14
Shelby	95.3%	56	95.2%	60	-0.1%	-4
Simpson	95.9%	49	97.5%	30	1.7%	19
Spencer	99.4%	4	97.7%	23	-1.7%	-19
Taylor	97.1%	26	94.1%	74	-3.0%	-48
Todd	93.4%	68	96.1%	48	2.9%	20
Trigg	91.6%	80	97.1%	40	6.1%	40
Trimble	94.1%	63	97.5%	30	3.6%	33
Union	92.3%	75	94.5%	67	2.4%	8
Warren	85.9%	102	90.6%	90	5.5%	12
Washington	88.2%	97	94.8%	64	7.4%	33
Wayne	97.9%	20	99.6%	6	1.7%	14
Webster	84.0%	106	88.4%	99	5.3%	7
Whitley	96.1%	48	90.0%	93	-6.3%	-45
Wolfe	95.0%	59	69.1%	117	-27.2%	-58
Woodford	96.9%	30	97.8%	21	1.0%	9

\*Includes all schools who reported within a given county.