

Challenges and Opportunities to Improve Kindergarten Vaccination Coverage and Exemption Data

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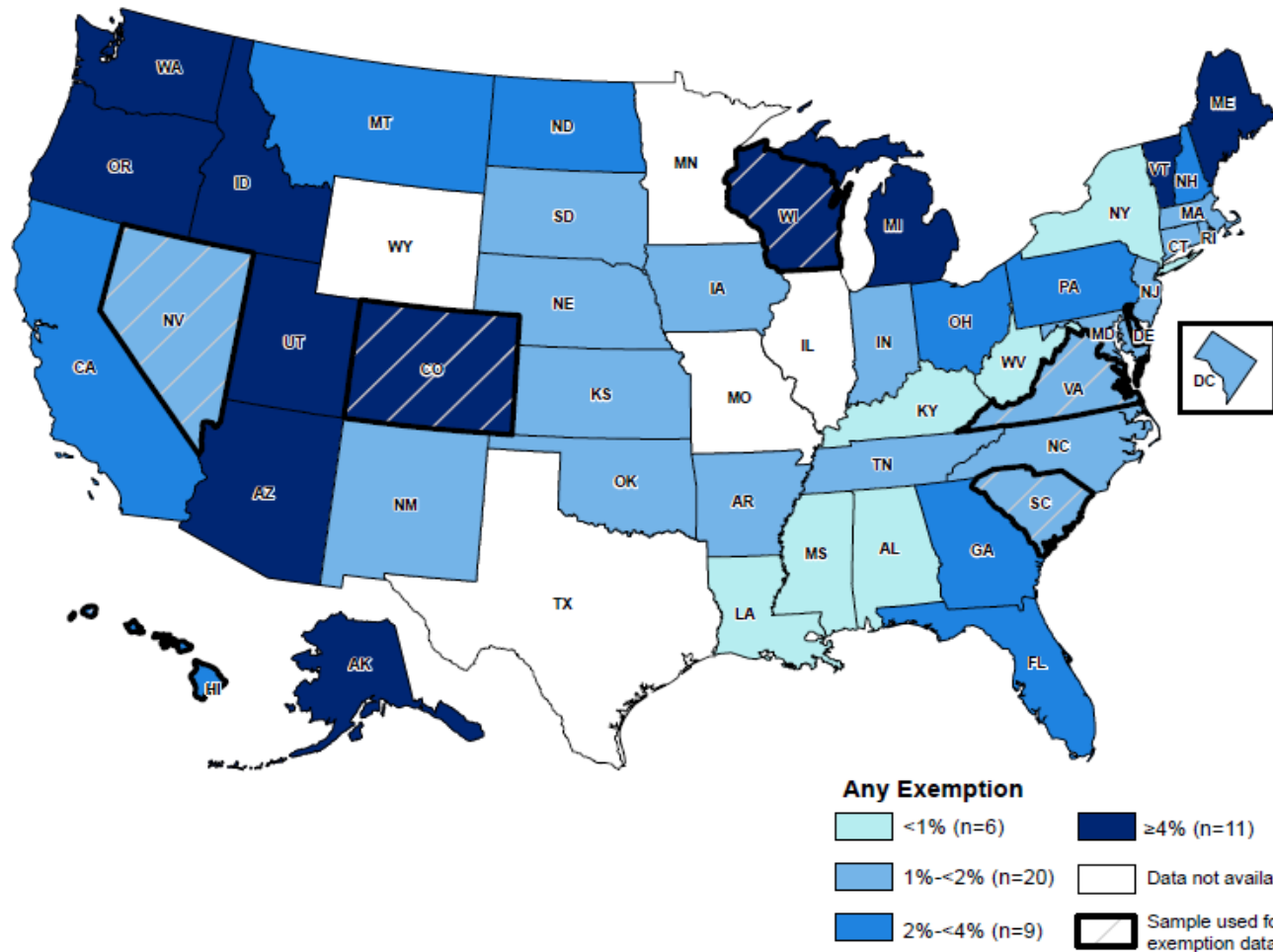
Measuring vaccination coverage among kindergartners important to ensure high coverage is maintained in school-aged children

- ❑ Annual vaccination coverage assessment by awardees**
 - Vaccination and exemption data collected by health department, school nurse, or other school personnel
 - Can be very resource intensive for schools and public health
- ❑ Vaccination coverage and exemptions defined by state and local school requirements**
 - Dose requirements and regulations
 - Documentation
- ❑ Census or sample of kindergarteners**
- ❑ Public and private schools**
 - Home schooled children and in some cases private schools not included
- ❑ Unable to measure a national estimate, report the median**

Median Estimated Vaccination Coverage and Exemptions among Kindergartners, United States, 2014-15

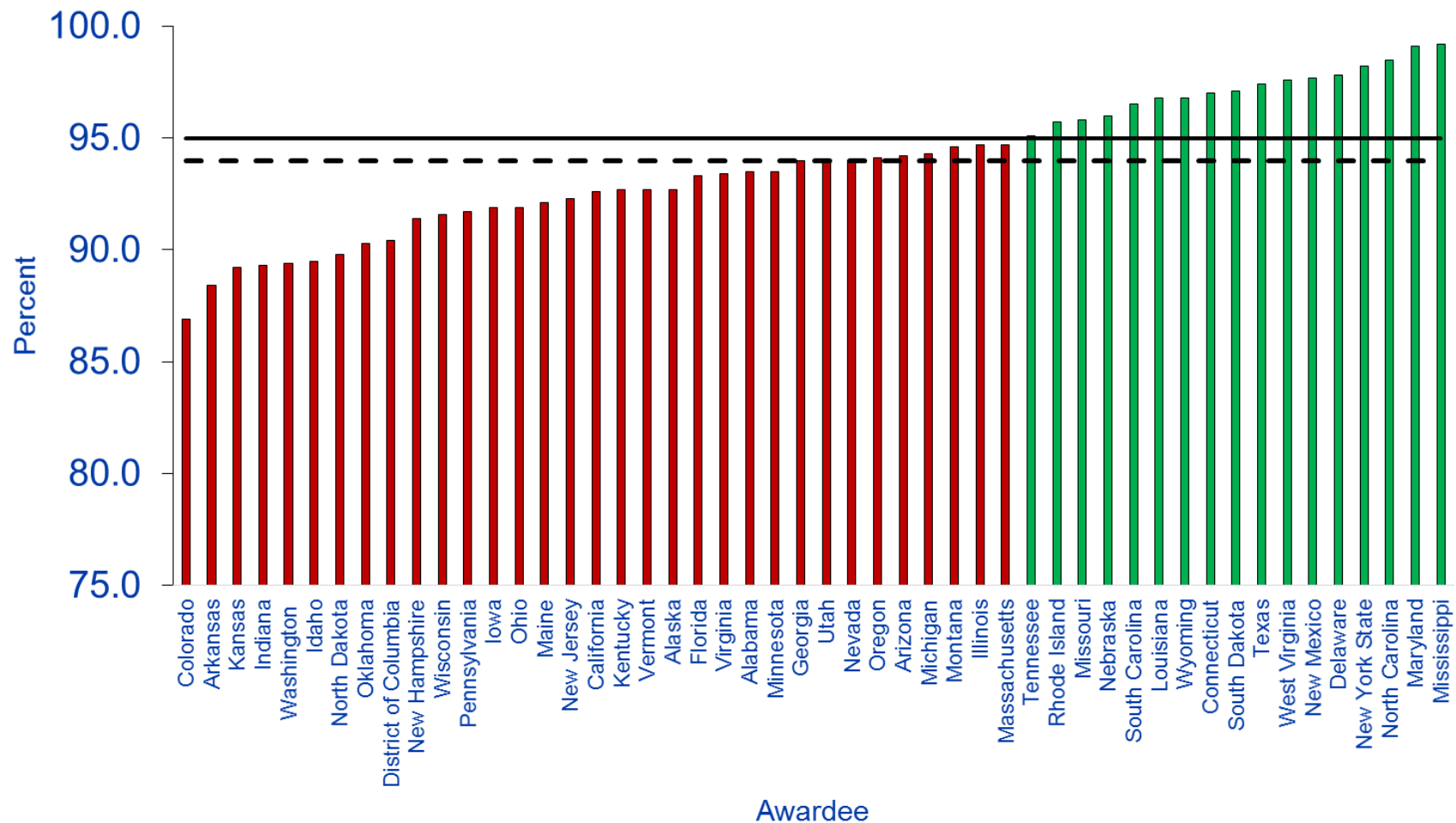
- ❑ **Measles, mumps, and rubella (MMR) vaccine (2 doses)**
 - 94.0%
- ❑ **Diphtheria, tetanus toxoid, and acellular pertussis (DTaP) vaccination (local requirements)**
 - 94.2%
- ❑ **Varicella vaccine (for 2 doses of among 41 awardees with a 2-dose requirement)**
 - 93.6%
- ❑ **Exemptions (one or more vaccines)**
 - Any exemption – 1.7%
 - Medical – 0.2%
 - Non-medical – 1.5%

Estimated Percentage of Children Enrolled in kindergarten who Have Been Exempted from Receiving One or More Vaccines*- United States, 2014-15 School Year



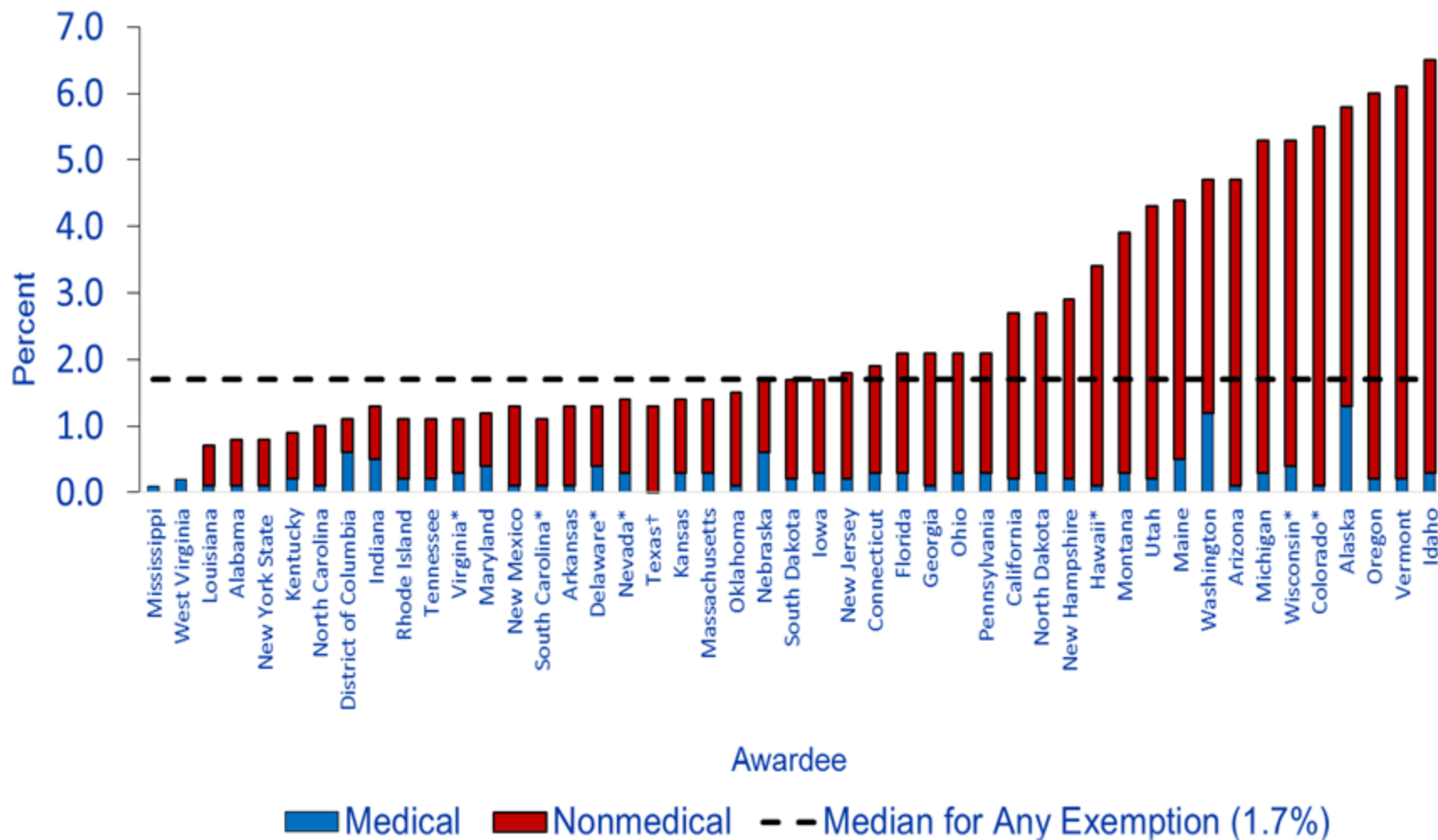
* Exemptions might not reflect a child's vaccination status. Children with an exemption who did not receive any vaccines are indistinguishable from those who have an exemption but are up-to-date for one or more vaccines.

Estimated Measles, Mumps, and Rubella (MMR) Vaccination Coverage among Kindergartners – United States, 2014-15 School Year



■ MMR coverage < 95%
 ■ MMR coverage ≥ 95%
 — Target
 - - Median MMR Coverage (94.0%)

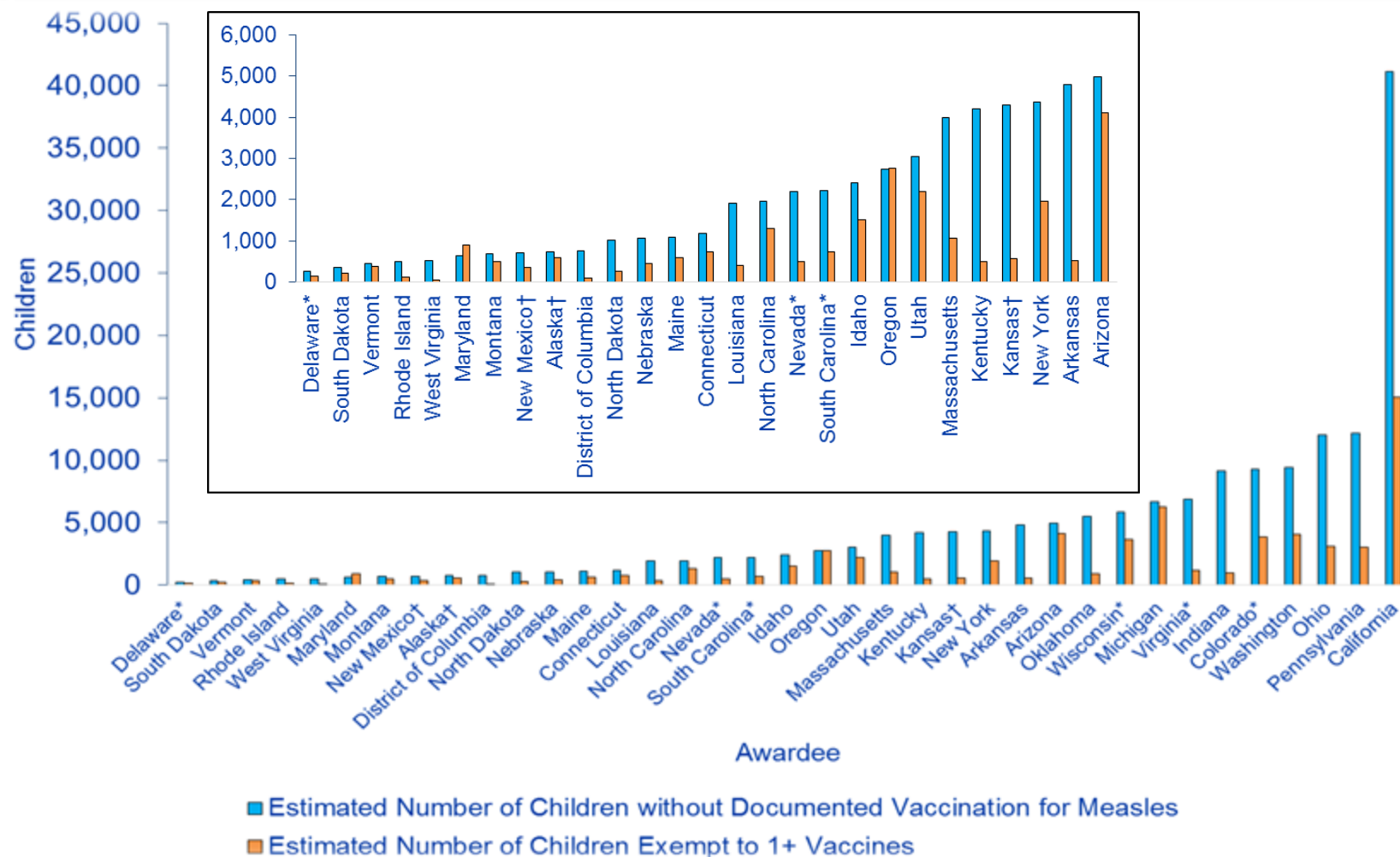
Estimated Percentage of Children Enrolled in Kindergarten who Have Been Exempted from Receiving One or More Vaccines *- United States, 2014-15 School Year



*State collected exemption data using a sample.

† Texas was unable to report the number of children with a medical exemption and are not included in the median for any exemption.

Estimated Number of Children without Documented 2-Dose Vaccination for Measles and Number of Children Exempt to One or More Vaccines among Kindergartners in 37 States Reporting MMR Coverage and Exemptions– United States, 2014-15 School Year



Records Challenge: Undocumented Vaccination

- **Difficult to tease apart unvaccinated children from children without documentation of vaccination**
- **Procedures to follow-up on children with conditional approvals to enter school vary by school district**
- **Resources at school level are scarce, especially school nurses**
- **Additional category to be added for 2015-2016 school year: conditional/provisional enrollment**

Methods Challenge: Census vs. Sample

Census	Sample
Provides local data	No local data
Resource intensive for schools	Resource intensive for health departments
Can identify clusters of low coverage or high exemptions	May miss clusters of low coverage or high exemptions
Can sample to validate data collected by non-health staff	Limits opportunities to educate school staff

Policy Challenge: Family Education and Rights Privacy Act (FERPA)

- ❑ **FERPA restricts individual school records, including health records, from being shared.**
 - Exception is in public health emergency or outbreak
 - National Act that is interpreted at state and local level
- ❑ **Schools report aggregate data, unable to report individual data to public health**
 - Public health unable to follow-up on kids missing vaccines
- ❑ **Public health is unable to support data collection or validate data**
 - Continues to drain resources from schools and school nurses

Opportunity: Using IISs

- ❑ **Using immunization information system (IIS) data can**
 - Streamline data collection
 - Provide accurate vaccination coverage data at the community, child, and possibly school levels
- ❑ **High functioning IISs with near complete participation can produce reports for schools**
 - Need to match student to IIS record
- ❑ **Schools may be able to report vaccination records to the IIS**
 - FERPA is a barrier
- ❑ **IISs could produce validated certificate**

Opportunity: Improving Data Quality

- ❑ **Encouraging awardees to move from sample to census methodology for measuring exemptions**
 - Need to address resources and policy barriers
 - Consider requirement to sample if barriers can be addressed
- ❑ **Increase use of IIS to support school coverage assessments**

Opportunity: Increase Vaccination Coverage

- ❑ **School coverage assessment is an opportunity to identify unvaccinated children who were missed prior to school entry**
 - Need for local data
- ❑ **Data is only as good as it can be acted on**
 - Outreach to schools with low coverage or high rates of exemptions
 - Following up on children who are missing vaccines
 - Support for state and local immunization programs

Acknowledgements

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- The 55 Immunization Programs which collected reported the vaccination and exemption data presented here.

Healthy People 2020

❑ IID-10 **Maintain vaccination coverage levels for children in kindergarten**

- DTaP vaccine (4 or more doses)
- MMR vaccine (2 or more doses)
- Polio vaccine (3 or more doses)
- Hepatitis B vaccine (3 or more doses)
- Varicella vaccine (2 or more doses)
- Target - 95% (national)

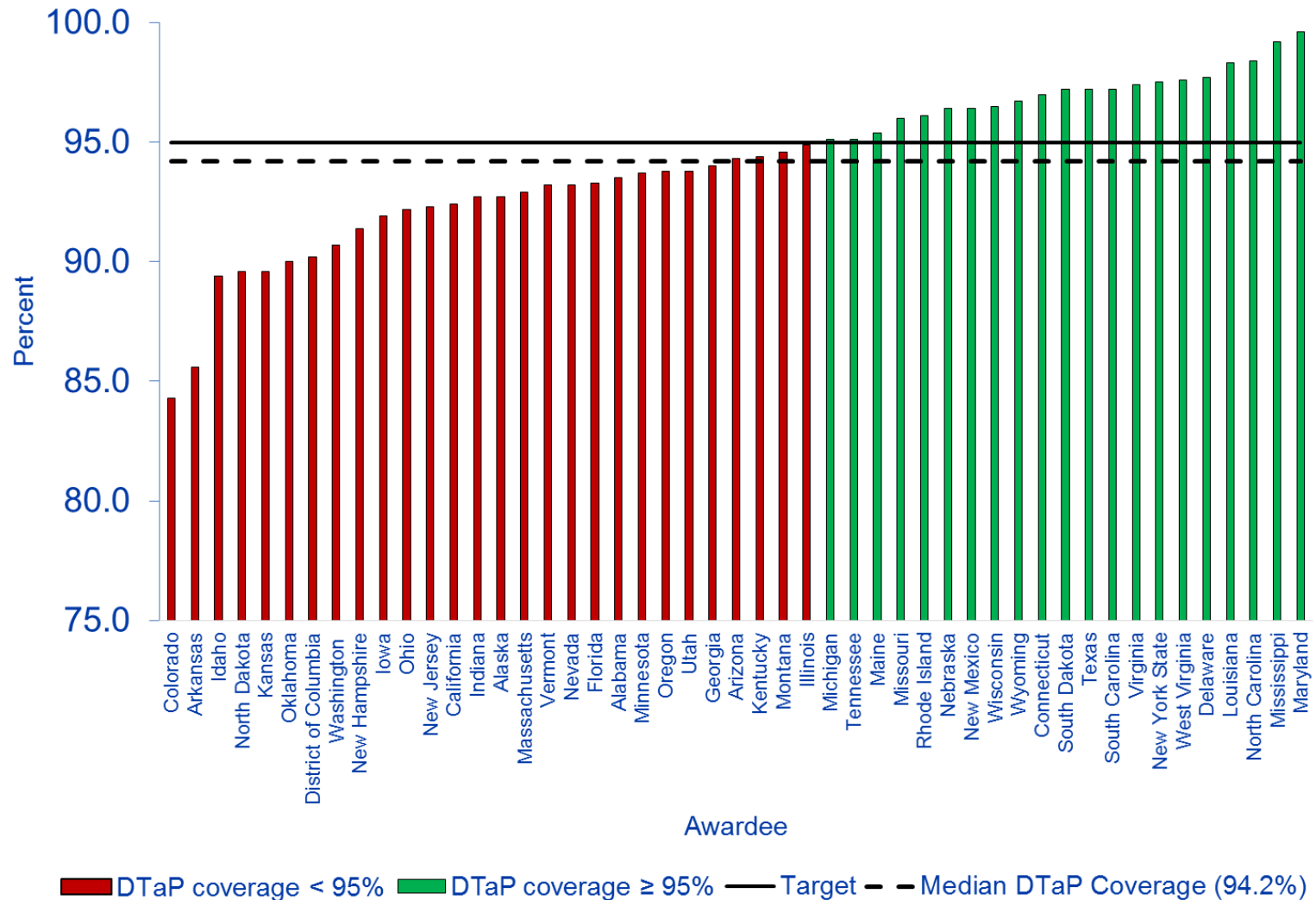
Source: <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=23>

Healthy People 2020

- ❑ **IID-19 Increase the number of States collecting kindergarten vaccination coverage data according to CDC minimum standards**
 - All age-appropriate ACIP recommendations must be followed, including 2 doses of varicella.
 - Appropriate sampling methodology must be used.
 - Data collected must be validated.
 - Data collection should only be done by trained personnel.
 - Data on vaccination history should come from a provider.
 - Data should be collected by the appropriate date (December 31 of each year).
 - Target – 51 (States and DC)

Source: <http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=23>

Estimated Diphtheria, Tetanus Toxoid and acellular Pertussis (DTaP) Vaccination Coverage among Kindergartners – United States, 2014-15 School Year



Estimated 2-Dose Varicella (VAR) Vaccination Coverage among Kindergartners in States with a 2-Dose Requirement – United States, 2014-15 School Year

