



2021-22 School and Child Care Immunization Audit Report



Iowa Department of Public Health
Protecting and Improving the Health of Iowans



**Bureau of Immunization and TB
Division of Acute Disease Prevention, Emergency Response, and
Environmental Health (ADPER and EH)
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Table of Contents

| | |
|---|----|
| Executive Summary..... | 1 |
| Background | 3 |
| School Immunization Audit Data - Child Care..... | 4 |
| Provisional Certificate of Immunization | 5 |
| Certificates of Immunization Exemption | 5 |
| Under and Un-Immunized | 5 |
| School Immunization Audit Data - Kindergarten through 12 th Grade Students | 6 |
| Kindergarten - 12th Grade Students - Provisional Certificate of Immunization..... | 7 |
| Kindergarten - 12th Grade Students - Certificate of Immunization Exemption | 7 |
| Kindergarten - 12th Grade Students - Under and Un-Immunized..... | 8 |
| Kindergarten - 12th Grade Students - Individual Grades..... | 8 |
| School Immunization Audit Data - Kindergarten Students | 9 |
| Kindergarten Students - Provisional Certificate of Immunization | 10 |
| Kindergarten Students - Certificate of Immunization Exemption | 10 |
| Kindergarten Students - Vaccination Coverage by School Type | 10 |
| Kindergarten Students - Under and Un-Immunized | 11 |
| School Immunization Audit Data - 7 th Grade Students | 12 |
| 7th Grade Students - Provisional Certificate of Immunization | 12 |
| 7th Grade Students - Certificate of Immunization Exemption | 13 |
| 7th Grade Students - Under and Un-Immunized | 13 |
| School Immunization Audit Data - 12 th Grade Students | 14 |
| 12th Grade Students - Provisional Certificate of Immunization | 14 |
| 12th Grade Students - Certificate of Immunization Exemption | 15 |
| 12th Grade Students - Under and Un-Immunized..... | 15 |
| Summary | 16 |
| Appendix A - Supplemental Maps..... | 17 |

List of Tables and Figures

List of Tables

| | |
|---|----|
| Table 1 State Immunization Summary by Year, Child Care, Iowa, 2011-12 to 2021-22 | 4 |
| Table 2 Under-Immunized Children in Child Care, Iowa, 2017-18 to 2021-22 | 6 |
| Table 3 State Immunization Summary by Year, Kindergarten - 12th Grade, Iowa, 2006-07 to 2021-22 | 7 |
| Table 4 Under-Immunized Students, Kindergarten - 12th Grade, Iowa, 2017-18 to 2021-22 | 8 |
| Table 5 High and Low Percent of Certificate Type by Grade, Kindergarten - 12th Grade, Iowa, 2021-22 ... | 8 |
| Table 6 State Immunization Summary by Grade, Kindergarten - 12th Grade, Iowa, 2021-22 | 9 |
| Table 7 State Immunization Summary by Year, Kindergarten, Iowa, 2011-12 to 2021-22 | 10 |
| Table 8 Kindergarten Immunization Summary by School Type, Iowa, 2021-22 | 11 |
| Table 9 Under-Immunized Students, Kindergarten, Iowa, 2017-18 to 2021-22 | 11 |
| Table 10 Immunization Certificates by Type 7th Grade, Iowa, 2017-18 to 2021-22 | 12 |
| Table 11 Under-Immunized Students, 7th Grade, Iowa, 2017-18 to 2021-22 | 13 |
| Table 12 State Immunization Summary, 12th Grade, Iowa, 2017-2018 to 2021-22 | 14 |
| Table 13 Under-Immunized Students, 12th Grade, Iowa, 2017-18 to 2021-22 | 15 |
| Table 14 Immunization Summary and Exemptions in Iowa and United States, 2019-20 and 2021-22 | 16 |

List of Figures

| | |
|---|----|
| Figure 1 Percent of Immunization Certificates by Type, Child Care, Iowa, 2011-12 to 2021-22 | 4 |
| Figure 2 Number and Percent of Exemptions by Type, Child Care, Iowa, 2017-18 to 2021-22 | 5 |
| Figure 3 Percent of Immunization Certificates by Type, K - 12th Grade, Iowa, 2006-07 to 2021-22 | 6 |
| Figure 4 Number and Percent of Exemptions by Type, K - 12th Grade, Iowa, 2017-18 to 2021-22 | 7 |
| Figure 5 Percent of Immunization Certificates by Type, Kindergarten, Iowa, 2011-12 to 2021-22 | 9 |
| Figure 6 Number and Percent of Exemptions by Type, Kindergarten, Iowa, 2017-18 to 2021-22 | 10 |
| Figure 7 Percent of Immunization Certificates by Type 7th Grade, Iowa, 2017-18 to 2021-22 | 12 |
| Figure 8 Number and Percent of Exemptions by Type, 7th Grade, Iowa, 2017-18 to 2021-22 | 13 |
| Figure 9 Percent of Immunization Certificates by Type, 12th Grade, Iowa, 2017-18 to 2021-22 | 14 |
| Figure 10 Number and Percent of Exemptions by Type, 12th Grade, Iowa, 2017-18 to 2021-22 | 15 |

EXECUTIVE SUMMARY

Each year, the Iowa Department of Public Health Immunization Program releases school and child care immunization audit reports. Local Public Health Agencies conduct audits of immunization records for students enrolled in licensed child care centers and public, private and parochial students in kindergarten through 12th grade each year. Assessments are conducted to ensure attendees receive required immunizations and have a valid Iowa Department of Public Health Certificate of Immunization, Certificate of Immunization Exemption, or Provisional Certificate of Immunization.

Child Care Immunization Audit Highlights - 2021-22 School Year

- **Total Enrollment:** Records from 90,345 children enrolled in child care were analyzed to calculate statewide vaccination coverage levels, which is a 12.3% increase from the previous year.
- **Valid Immunization Certificates:** 96.4% of children attending licensed child care centers had valid immunization certificates, indicating 87,126 children had IDPH Certificates of Immunization, Certificates of Immunization Exemption, or Provisional Certificates of Immunization in compliance with Iowa law.
 - **Certificates of Immunization:** 93.3% of children attending licensed child care centers had valid Certificates of Immunization, indicating 84,300 children met age-appropriate immunization requirements.
 - **Provisional Certificates of Immunization:** 1.4% of children attending licensed child care centers had Provisional Certificates of Immunization, indicating 1,253 children received at least one dose of each of the required vaccines but did not complete all required immunizations.
 - **Certificates of Immunization Exemption – Medical:** 0.1% of children attending licensed child care centers had a medical Certificates of Immunization Exemption, representing 77 children.
 - **Certificates of Immunization Exemption – Religious:** 1.7% of children attending licensed child care centers had a religious Certificates of Immunization Exemption, representing 1,496 children.
- **Invalid or No Immunization Certificates:** 3.6% of children attending licensed child care centers had invalid or no immunization certificates, representing 3,219 children.
- **Under or Un-immunized:** 6.7% of children attending licensed child care centers were under or un-immunized, representing 6,045 children with a Provisional Certificate of Immunization, Certificate of Immunization Exemption, or an invalid or no certificate.

School Immunization Audit Highlights - 2021-22 School Year

- **Total Enrollment:** Records from 522,476 students attending Iowa schools were analyzed to calculate statewide vaccination coverage levels, which is a 0.6% increase from the previous year.
- **Valid Immunization Certificates:** 98.8% of students attending Iowa schools had valid immunization certificates, indicating 516,311 records of IDPH Certificates of Immunization, Certificates of Immunization Exemption, or Provisional Certificates of Immunization complied with Iowa law.
 - By grade, the percent of students with valid immunization certificates ranged from 97.1% to 99.5%.
 - The percent of students with valid immunization certificates decreased from 99.1% in the 2020-21 school year to 98.8% in the 2021-22 school year.
- **Certificates of Immunization:** 94.3% of students attending Iowa schools had valid Certificates of Immunization, indicating 492,826 records met age-appropriate immunization requirements.

- By grade, the percent of students with Certificates of Immunization ranged from 86.0% to 99.5%.
- The percent of students with Certificates of Immunization decreased from 95.6% in the 2020-21 school year to 94.3% in the 2021-22 school year, which is a decrease of 3,420 records.
- **Provisional Certificates of Immunization:** 1.9% of students attending Iowa schools had Provisional Certificates of Immunization, indicating 10,078 students received at least one dose of each of the required vaccines but did not complete all required immunizations or have transferred from another U.S. school system.
 - By grade, the percent of students with Provisional Certificates ranged from 0.6% to 8.5%.
 - The percent of students with Provisional Certificate increased from 1.2% in the 2020-21 school year to 1.9% in the 2021-22 school year, which is an increase of 3,941 records.
- **Certificates of Immunization Exemption – Medical:** 0.3% of students attending Iowa schools had medical Certificates of Immunization Exemption, representing 1,425 students.
 - By grade, the percent of students with medical Certificates of Immunization Exemption ranged from 0.1% to 0.5%.
 - The percent of students with medical Certificates of Immunization Exemption remained constant from the previous school year.
- **Certificates of Immunization Exemption – Religious:** 2.3% of students attending Iowa schools had religious Certificates of Immunization Exemption, representing 11,982 students.
 - By grade, the percent of students with religious Certificates of Immunization Exemption ranged from 1.9% to 2.7%.
 - The percent of students with religious Certificates of Immunization increased from 2.0% in the 2020-21 school year to 2.3% in the 2021-22 school year, which is an increase of 1,389 records.
- **Invalid or No immunization Certificates:** 1.2% of students attending Iowa schools had invalid or no immunization certificates, representing 6,165 students.
 - By grade, the percent of students with invalid or no certificates ranged from 0.5% to 2.9%.
 - The percent of students with invalid or no certificate increased from 0.9% in the 2020-21 school year to 1.2% in the 2021-22 school year, which is an increase of 1,552 records.
- **Under or Un-immunized:** 5.7% of students attending Iowa schools were under or un-immunized, representing 29,650 students with a Provisional Certificate of Immunization, Certificate of Immunization Exemption, or an invalid or no certificate.
 - By grade, the percent of under or un-immunized students ranged from 3.4% to 14.0%.
 - The percent of students with invalid or no certificate increased from 4.4% in the 2020-21 school year to 5.7% in the 2021-22 school year, which is an increase of 6,737 records.

BACKGROUND

Annually, the Iowa Department of Public Health Immunization Program releases school and child care audit reports. Local Public Health Agencies (LPHAs) conduct audits of immunization records for children enrolled in licensed child care centers and public, private and parochial students in kindergarten through 12th grade each year. Assessments are conducted to ensure attendees receive the required immunizations and have a valid Iowa Department of Public Health Certificate of Immunization, Certificate of Immunization Exemption, or Provisional Certificate of Immunization. Iowa Code, Chapter 139a.8(6) and Iowa Administrative Code, 641-7.7(139) outline immunization requirements to attend licensed child care centers and elementary or secondary schools. To attend school or licensed child care, the child needs to present a valid Certificate of Immunization, Provisional Certificate of Immunization, or Certificate of Immunization Exemption (Medical or Religious) to the admitting official. A brief explanation of each certificate is included below.

- **Certificate of Immunization** - Issued when the applicant has a record of age-appropriate immunizations that meet the requirement for licensed child care or school enrollment.
- **Provisional Certificate of Immunization** - Issued when the applicant has received at least one dose of each of the required vaccines but has not completed all required immunizations or is a transfer student from another U.S. school system.
- **Certificate of Immunization Exemption-Medical** - Iowa law allows for medical exemption to immunization when the required immunizations would be injurious to the health and well-being of the applicant or any member of the applicant's family or household or the required vaccine would violate minimum interval spacing.
- **Certificate of Immunization Exemption-Religious** - Iowa law allows for religious exemption to immunization when immunizations conflict with a genuine and sincere religious belief, and is not based merely on philosophical, scientific, moral, personal or medical opposition to immunizations.

Data files contained in this report are available on the Immunization Program webpage at <http://idph.iowa.gov/immtdb/immunization/audits>. In 2019, the Immunization Program began to collaborate with the Iowa Public Health Tracking Program to include immunization data for childhood, adolescent, human papillomavirus (HPV), influenza and school and child care audits on the IDPH Tracking Portal. These data are available at <https://tracking.idph.iowa.gov/Health/Immunization>.

SCHOOL IMMUNIZATION AUDIT DATA – CHILD CARE

Local Public Health Agencies conducted audits of immunization records for 90,345 children enrolled in Iowa’s licensed child care centers during the 2021-22 school year, which is a 12.3% increase in audited records from the previous year. For children enrolled in licensed child care centers in 2021-22:

- 96.4% of children had valid Certificates of Immunization, Certificates of Immunization Exemption, or Provisional Certificates of Immunization and were compliant with Iowa law (87,126 records).
- 93.3% of children had valid Certificates of Immunization and received all required vaccines to attend child care (84,300 records).
- 6.7% of children were under or un-immunized (6,045 records).
- 3.6% of children had invalid or no certificates (3,219 records) (Figure 1 and Table 1).

Figure 1 Percent of Immunization Certificates by Type, Child Care, Iowa, 2011-12 to 2021-22

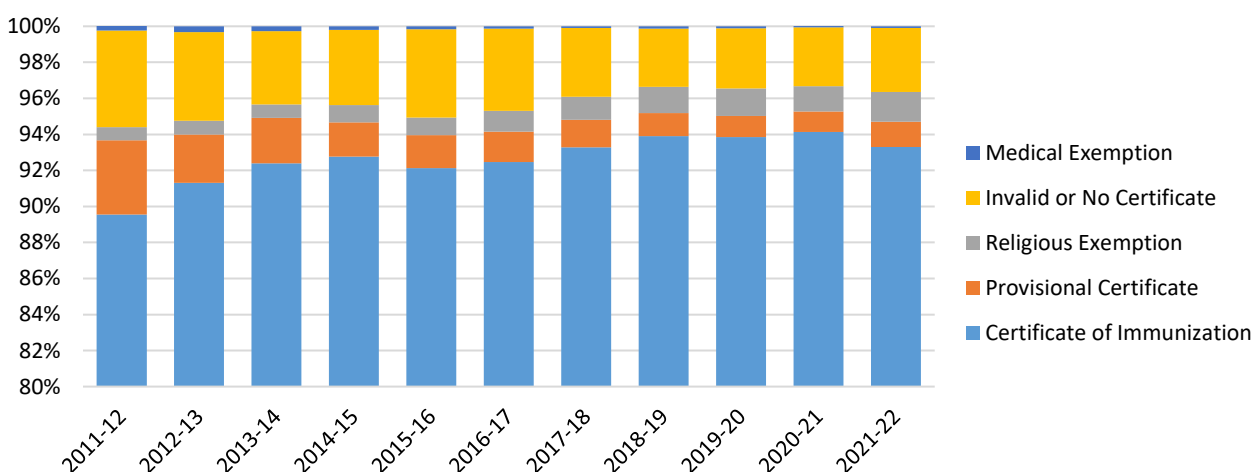


Figure Note: Vertical axis begins at 80%

Table 1 State Immunization Summary by Year, Child Care, Iowa, 2011-12 to 2021-22

| Year | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | | Under and Un-Immunized | |
|---------|---------------------------|------|--------------------------|-----|------------|-----|-------|-----|---------------------------|-----|----------------|--------------------------|------|-------|------------------------|--|
| | Total | % | Total | % | Total | % | Total | % | Total | % | | Total | % | Total | % | |
| 2011-12 | 68,830 | 89.6 | 3,158 | 4.1 | 285 | 0.4 | 571 | 0.7 | 4,118 | 5.4 | 76,854 | 72,844 | 94.8 | 8,132 | 10.6 | |
| 2012-13 | 75,983 | 91.3 | 2,235 | 2.7 | 269 | 0.3 | 636 | 0.8 | 4,089 | 4.9 | 83,212 | 79,123 | 95.1 | 7,229 | 8.7 | |
| 2013-14 | 74,659 | 92.4 | 2,048 | 2.5 | 219 | 0.3 | 599 | 0.7 | 3,286 | 4.1 | 80,811 | 77,525 | 95.9 | 6,152 | 7.6 | |
| 2014-15 | 79,415 | 92.8 | 1,631 | 1.9 | 169 | 0.2 | 826 | 1.0 | 3,576 | 4.2 | 85,617 | 82,041 | 95.8 | 6,202 | 7.2 | |
| 2015-16 | 78,272 | 92.1 | 1,551 | 1.8 | 140 | 0.2 | 845 | 1.0 | 4,163 | 4.9 | 84,971 | 80,808 | 95.1 | 6,699 | 7.9 | |
| 2016-17 | 86,048 | 92.5 | 1,561 | 1.7 | 112 | 0.1 | 1,067 | 1.2 | 4,266 | 4.6 | 93,054 | 88,788 | 95.4 | 7,006 | 7.5 | |
| 2017-18 | 89,720 | 93.3 | 1,476 | 1.5 | 93 | 0.1 | 1,231 | 1.3 | 3,662 | 3.8 | 96,182 | 92,520 | 96.2 | 6,462 | 6.7 | |
| 2018-19 | 91,354 | 93.9 | 1,258 | 1.3 | 109 | 0.1 | 1,415 | 1.5 | 3,156 | 3.2 | 97,292 | 94,136 | 96.8 | 5,938 | 6.1 | |
| 2019-20 | 91,569 | 93.8 | 1,150 | 1.2 | 104 | 0.1 | 1,486 | 1.5 | 3,265 | 3.3 | 97,574 | 94,309 | 96.7 | 6,005 | 6.2 | |
| 2020-21 | 75,699 | 94.1 | 905 | 1.1 | 57 | 0.1 | 1,125 | 1.4 | 2,628 | 3.3 | 80,414 | 77,786 | 96.7 | 4,715 | 5.9 | |
| 2021-22 | 84,300 | 93.3 | 1,253 | 1.4 | 77 | 0.1 | 1,496 | 1.7 | 3,219 | 3.6 | 90,345 | 87,126 | 96.4 | 6,045 | 6.7 | |

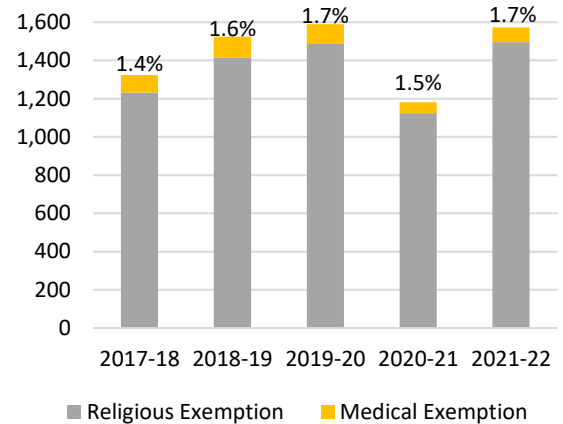
Provisional Certificate of Immunization

- During the 2021-22 school year, 1.4% of children in child care had a Provisional Certificate of Immunization, representing 1,253 children.
- The number of Provisional Certificates of Immunization increased 38.5% from the previous year, but has decreased 15.1% since the 2017-18 school year.

Certificates of Immunization Exemption

- During the 2021-22 school year, 1.7% of children in child care had a Certificate of Immunization Exemption (1,573 records) (Figure 2).
- Of the 1,573 exemptions, 95.1% (1,496 records) were categorized as religious and 4.9% (77 records) were categorized as medical.
- The number of Certificates of Immunization Exemptions increased 33.1% (391 records) from the previous year and 18.8% (249 records) since the 2017-18 school year.

Figure 2 Number and Percent of Exemptions by Type, Child Care, Iowa, 2017-18 to 2021-22



Medical Exemptions:

- During the 2021-22 school year, 0.1% of children enrolled in licensed child care had a medical Certificate of Immunization Exemption, representing 77 children.
- The number of medical Certificates of Immunization Exemption increased 35.1% (20 records) from the previous year and decreased 17.2% (16 records) since the 2017-18 school year.

Religious Exemptions:

- During the 2021-22 school year, 1.7% of children enrolled in licensed child care had a religious Certificate of Immunization Exemption, representing 1,496 children.
- The number of religious Certificates of Immunization Exemptions increased 33.0% (371 records) from the previous year and 21.5% (256 records) since the 2017-18 school year.

Under and Un-Immunized

- During the 2021-22 school year, 6.7% of children enrolled in licensed child care were under immunized (6,045 records). During the previous year, 5.9% of children were under immunized.
- The number of under and un-immunized children increased 28.2% from the previous school year. There was a 12.3% increase in records audited compared to the previous year (Table 2).

Table 2 Under-Immunized Children in Child Care, Iowa, 2017-18 to 2021-22

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|--|---------|---------|---------|---------|---------|
| Total Enrollment | 96,182 | 97,292 | 97,574 | 80,414 | 90,345 |
| Percent change in total enrollment | 3.4% | 1.2% | 0.3% | -17.6% | 12.3% |
| Certificate of Immunization Exemption-Medical | 93 | 109 | 104 | 57 | 77 |
| Percent change in number of Medical Exemptions from previous year | -17.0% | 17.2% | -4.6% | -45.2% | 35.1% |
| Certificate of Immunization Exemption-Religious | 1,231 | 1,415 | 1,486 | 1,125 | 1,496 |
| Percent change in number of Religious Exemptions from previous year | 15.4% | 14.9% | 5.0% | -24.3% | 33.0% |
| Provisional Certificate | 1,476 | 1,258 | 1,150 | 905 | 1,253 |
| Percent change in number of Provisional Exemptions from previous year | -5.4% | -14.8% | -8.6% | -21.3% | 38.5% |
| Invalid or No Certificate | 3,662 | 3,156 | 3,265 | 2,628 | 3,219 |
| Percent change in number of Invalid or No Certificate from previous year | -14.2% | -13.8% | 3.5% | -19.5% | 22.5% |
| Total Under/Un-immunized | 6,462 | 5,938 | 6,005 | 4,715 | 6,045 |
| Percent of Under/Un-immunized Students | 6.7% | 6.1% | 6.2% | 5.9% | 6.7% |
| Percent change in number of Under/ Un-immunized from previous year | -7.8% | -8.1% | 1.1% | -21.5% | 28.2% |

SCHOOL IMMUNIZATION AUDIT DATA - KINDERGARTEN THROUGH 12TH GRADE

Local Public Health Agencies conducted audits of immunization records for 522,476 students enrolled in 1,650 of Iowa’s public, private and parochial schools during the 2021-22 school year. The audit data were analyzed to calculate statewide vaccination coverage levels.

For students in kindergarten through 12th grade during the 2021-22 school year:

- 98.8% of students had valid Certificates of Immunization, Certificates of Immunization Exemption, or Provisional Certificates of Immunization and were compliant with Iowa law (516,311 records).
- 94.3% of students had valid Certificates of Immunization and received all required vaccines (492,826 records).
- 5.7% of students were under or un-immunized (29,650 records).
- 1.9% of students had Provisional Certificates of Immunization (10,078 records).
- 1.2% of students had invalid or no certificates (6,165 records) (Figure 3 and Table 3).

Figure 3 Percent of Immunization Certificates by Type, Kindergarten - 12th Grade, Iowa, 2006-07 to 2021-22

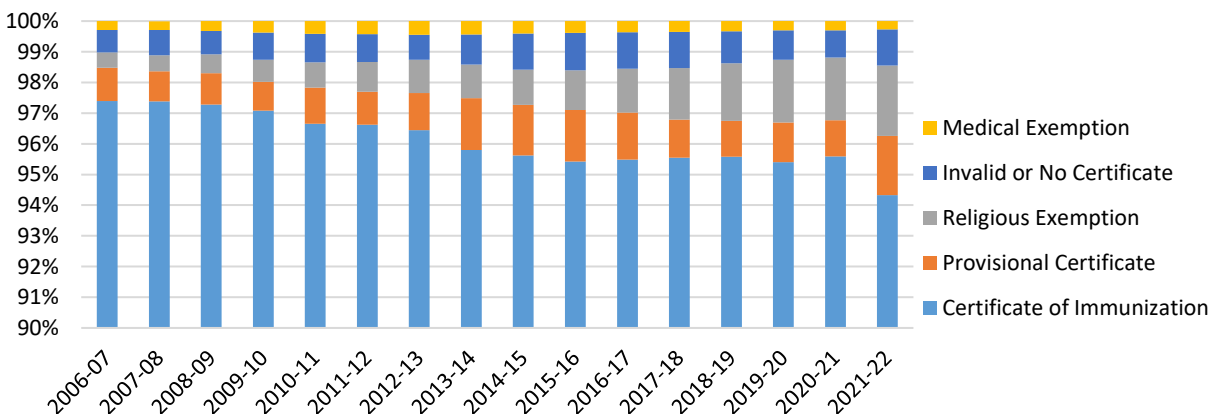


Figure Note: Vertical axis begins at 90%

Table 3 State Immunization Summary by Year, Kindergarten - 12th Grade, Iowa, 2006-07 to 2021-22

| Year | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | Under and Un-Immunized | |
|---------|---------------------------|------|--------------------------|-----|------------|-----|--------|-----|---------------------------|-----|----------------|--------------------------|------|------------------------|-----|
| | Total | % | Total | % | Total | % | Total | % | Total | % | Total | Total | % | Total | % |
| 2006-07 | 496,646 | 97.4 | 5,543 | 1.1 | 1,461 | 0.3 | 2,572 | 0.5 | 3,733 | 0.7 | 509,955 | 506,222 | 99.3 | 13,309 | 2.6 |
| 2007-08 | 498,918 | 97.4 | 5,045 | 1.0 | 1,443 | 0.3 | 2,706 | 0.5 | 4,226 | 0.8 | 512,338 | 508,112 | 99.2 | 13,420 | 2.6 |
| 2008-09 | 489,493 | 97.3 | 5,109 | 1.0 | 1,604 | 0.3 | 3,133 | 0.6 | 3,817 | 0.8 | 503,156 | 499,339 | 99.2 | 13,663 | 2.7 |
| 2009-10 | 490,783 | 97.1 | 4,740 | 0.9 | 1,852 | 0.4 | 3,662 | 0.7 | 4,499 | 0.9 | 505,536 | 501,037 | 99.1 | 14,753 | 2.9 |
| 2010-11 | 489,069 | 96.7 | 5,959 | 1.2 | 2,113 | 0.4 | 4,206 | 0.8 | 4,655 | 0.9 | 506,002 | 501,347 | 99.1 | 16,933 | 3.3 |
| 2011-12 | 492,952 | 96.6 | 5,512 | 1.1 | 2,184 | 0.4 | 4,958 | 1.0 | 4,580 | 0.9 | 510,186 | 505,606 | 99.1 | 17,234 | 3.4 |
| 2012-13 | 496,460 | 96.5 | 6,168 | 1.2 | 2,355 | 0.5 | 5,612 | 1.1 | 4,151 | 0.8 | 514,746 | 510,595 | 99.2 | 18,286 | 3.6 |
| 2013-14 | 493,432 | 95.8 | 8,700 | 1.7 | 2,251 | 0.4 | 5,628 | 1.1 | 5,072 | 1.0 | 515,083 | 510,011 | 99.0 | 21,651 | 4.2 |
| 2014-15 | 492,611 | 95.6 | 8,501 | 1.7 | 2,096 | 0.4 | 5,941 | 1.2 | 6,019 | 1.2 | 515,168 | 509,149 | 98.8 | 22,557 | 4.4 |
| 2015-16 | 495,792 | 95.4 | 8,746 | 1.7 | 1,996 | 0.4 | 6,737 | 1.3 | 6,325 | 1.2 | 519,596 | 513,172 | 98.8 | 23,804 | 4.6 |
| 2016-17 | 497,812 | 95.5 | 7,951 | 1.5 | 1,891 | 0.4 | 7,465 | 1.4 | 6,218 | 1.2 | 521,337 | 515,119 | 98.8 | 23,525 | 4.5 |
| 2017-18 | 497,864 | 95.6 | 6,439 | 1.2 | 1,852 | 0.4 | 8,740 | 1.7 | 6,134 | 1.2 | 521,029 | 514,895 | 98.8 | 23,165 | 4.4 |
| 2018-19 | 502,286 | 95.6 | 6,136 | 1.2 | 1,723 | 0.3 | 9,851 | 1.9 | 5,519 | 1.1 | 525,515 | 519,996 | 98.9 | 23,229 | 4.4 |
| 2019-20 | 501,828 | 95.4 | 6,843 | 1.3 | 1,662 | 0.3 | 10,713 | 2.0 | 5,083 | 1.0 | 526,129 | 521,046 | 99.0 | 24,301 | 4.6 |
| 2020-21 | 496,246 | 95.6 | 6,137 | 1.2 | 1,570 | 0.3 | 10,593 | 2.0 | 4,613 | 0.9 | 519,159 | 514,546 | 99.1 | 22,913 | 4.4 |
| 2021-22 | 492,826 | 94.3 | 10,078 | 1.9 | 1,425 | 0.3 | 11,982 | 2.3 | 6,165 | 1.2 | 522,476 | 516,311 | 98.8 | 29,650 | 5.7 |

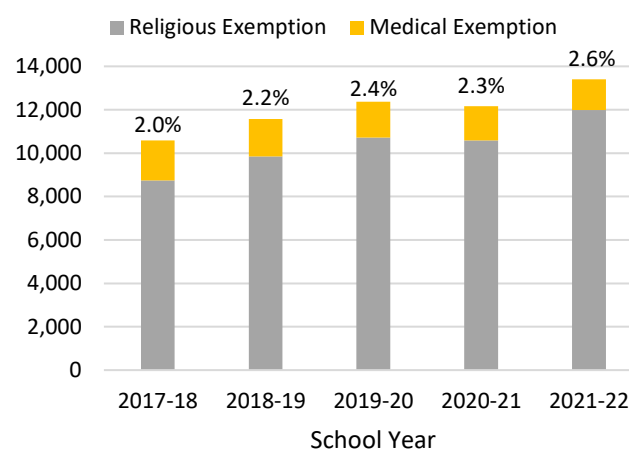
Kindergarten - 12th Grade - Provisional Certificate of Immunization

- During the 2021-22 school year, 1.9% of students in kindergarten through 12th grade had a Provisional Certificate of Immunization, representing 10,078 students.
- Provisional Certificates of Immunization increased from 1.2% (6,137 records) during the 2020-21 school year to 1.9% (10,078 records) during the 2021-22 school year (Table 3 and Figure 3).

Kindergarten - 12th Grade - Certificate of Immunization Exemption

- During the 2021-22 school year, 2.6% of students in kindergarten through 12th grade were reported to have a Certificate of Immunization Exemption, representing 13,407 students (Figure 4).
- Of the 13,407 exemptions, 89.4% (11,982 records) were categorized as religious and 10.6% (1,425 records) were categorized as medical.
- The number of Certificates of Immunization Exemptions increased 10.2% (1,244 records) from the previous year and 26.6% (2,815 records) since the 2017-18 school year.

Figure 4 Number and Percent of Exemptions by Type, Kindergarten - 12th Grade, Iowa, 2017-18 to 2021-22



Medical Exemptions:

- During the 2021-22 school year, 0.3% of students in kindergarten through 12th grade had a medical Certificate of Immunization Exemption, representing 1,425 students and a slight decrease from the previous year.
- While the number of medical exemptions decreased from the previous school year, the percent of students with this exemption remained constant.
- The number of medical Certificates of Immunization Exemptions decreased 23.1% (427 records) since the 2017-18 school year.

Religious Exemptions:

- During the 2021-22 school year, 2.3% of students in kindergarten through 12th grade had a religious Certificate of Immunization Exemption, representing 11,982 students and an increase from the previous year.
- The number of religious Certificates of Immunization Exemptions increased 13.1% (1,389 records) from the previous year and 37.1% (3,242 records) since the 2017-18 school year.

Kindergarten - 12th Grade - Under and Un-Immunized

- During the 2021-22 school year, 5.7% of students in kindergarten through 12th grade were under immunized and includes children who have an invalid or no certificate, Provisional Certificate of Immunization, Certificate of Immunization Exemption (29,650 records) (Table 4).
- The number of under and un-immunized students increased 29.4% from the previous assessment year, which is an increase of 6,737 records.
- The largest percent increase in under immunized students was observed in the number of Provisional Certificates (64.2%), followed by invalid or no certificate (33.6%) and religious Certificates of Immunization Exemption (13.1%).

Table 4 Under-Immunized Students, Kindergarten - 12th Grade, Iowa, 2017-18 to 2021-22

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|--|---------|---------|---------|---------|---------|
| Total Enrollment | 521,029 | 525,515 | 526,129 | 519,159 | 522,476 |
| Percent change in total enrollment | -0.1% | 0.9% | 0.1% | -1.3% | 0.6% |
| Certificate of Immunization Exemption-Medical | 1,852 | 1,723 | 1,662 | 1,570 | 1,425 |
| Percent change in number of Medical Exemptions from previous year | -2.1% | -7.0% | -3.5% | -5.5% | -9.2% |
| Certificate of Immunization Exemption-Religious | 8,740 | 9,851 | 10,713 | 10,593 | 11,982 |
| Percent change in number of Religious Exemptions from previous year | 17.1% | 12.7% | 8.8% | -1.1% | 13.1% |
| Provisional Certificate | 6,439 | 6,163 | 6,843 | 6,137 | 10,078 |
| Percent change in number of Provisional Exemptions from previous year | -19.0% | -4.7% | 11.5% | -10.3% | 64.2% |
| Invalid or No Certificate | 6,134 | 5,519 | 5,083 | 4,613 | 6,165 |
| Percent change in number of Invalid or No Certificate from previous year | -1.4% | -10.0% | -7.9% | -9.2% | 33.6% |
| Total Under/Un-immunized | 23,165 | 23,229 | 24,301 | 22,913 | 29,650 |
| Percent of Under/Un-immunized Students | 4.4% | 4.4% | 4.6% | 4.4% | 5.7% |
| Percent change in number of Under/ Un-immunized from previous year | -1.5% | 0.3% | 4.6% | -5.7% | 29.4% |

Kindergarten - 12th Grade - Individual Grades

The percent of each certificate type varied by grade level and home school classification during the 2021-22 school year (Tables 5 and 6).

Table 5 High and Low Percent of Certificate Type by Grade, Kindergarten - 12th Grade, Iowa, 2021-22

| Certificate type | Lowest Percent | | Highest Percent | |
|--|------------------------|---------|------------------------|---------|
| | Grade | Percent | Grade | Percent |
| Valid Immunization Certificates | 12 th grade | 97.1% | 4 th grade | 99.5% |
| Certificates of Immunization | 12 th grade | 86.0% | 4 th grade | 96.6% |
| Provisional Certificate of Immunization | 5 th grade | 0.6% | 12 th grade | 8.5% |
| Medical Certificates of Immunization Exemption | Kindergarten | 0.1% | 12 th grade | 0.5% |
| Religious Certificates of Immunization Exemption | 10 th grade | 1.9% | 7 th grade | 2.7% |
| Invalid or no Certificate | 4 th grade | 0.5% | 12 th grade | 2.9% |
| Under or un-immunized students | 4 th grade | 3.4% | 12 th grade | 14.0% |

Table Note: Aggregated Home School student records excluded from table due to representing multiple grades.

Table 6 State Immunization Summary by Grade, Kindergarten - 12th Grade, Iowa, 2021-22

| Grade | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | Under and Un-Immunized | |
|-------|---------------------------|------|--------------------------|-----|------------|-----|-----------|------|---------------------------|-----|----------------|--------------------------|------|------------------------|------|
| | Total | % | Total | % | Medical | | Religious | | Total | % | | Total | % | Total | % |
| HS | 2,199 | 68.0 | 167 | 5.2 | 39 | 1.2 | 583 | 18.0 | 244 | 7.6 | 3,232 | 2,988 | 92.5 | 1,033 | 32.0 |
| K | 36,337 | 90.6 | 2,146 | 5.4 | 49 | 0.1 | 913 | 2.3 | 666 | 1.7 | 40,111 | 39,445 | 98.3 | 3,774 | 9.4 |
| 1 | 37,280 | 95.2 | 526 | 1.3 | 52 | 0.1 | 977 | 2.5 | 340 | 0.9 | 39,175 | 38,835 | 99.1 | 1,895 | 4.8 |
| 2 | 37,720 | 95.9 | 333 | 0.9 | 67 | 0.2 | 921 | 2.3 | 287 | 0.7 | 39,328 | 39,041 | 99.3 | 1,608 | 4.1 |
| 3 | 37,486 | 95.8 | 288 | 0.7 | 60 | 0.2 | 927 | 2.4 | 385 | 1.0 | 39,146 | 38,761 | 99.0 | 1,660 | 4.2 |
| 4 | 37,155 | 96.6 | 245 | 0.6 | 78 | 0.2 | 779 | 2.0 | 190 | 0.5 | 38,447 | 38,257 | 99.5 | 1,292 | 3.4 |
| 5 | 37,114 | 96.6 | 229 | 0.6 | 77 | 0.2 | 770 | 2.0 | 219 | 0.6 | 38,409 | 38,190 | 99.4 | 1,295 | 3.4 |
| 6 | 38,178 | 96.5 | 258 | 0.7 | 94 | 0.2 | 789 | 2.0 | 252 | 0.6 | 39,571 | 39,319 | 99.4 | 1,393 | 3.5 |
| 7 | 37,169 | 92.1 | 954 | 2.4 | 107 | 0.3 | 1,104 | 2.7 | 1,047 | 2.6 | 40,381 | 39,334 | 97.4 | 3,212 | 8.0 |
| 8 | 39,763 | 95.2 | 408 | 1.0 | 137 | 0.3 | 1,005 | 2.4 | 453 | 1.1 | 41,766 | 41,313 | 98.9 | 2,003 | 4.8 |
| 9 | 40,583 | 95.8 | 485 | 1.1 | 141 | 0.3 | 851 | 2.0 | 324 | 0.8 | 42,384 | 42,060 | 99.2 | 1,801 | 4.2 |
| 10 | 39,651 | 96.2 | 360 | 0.9 | 154 | 0.4 | 763 | 1.9 | 312 | 0.8 | 41,240 | 40,928 | 99.2 | 1,589 | 3.9 |
| 11 | 38,243 | 96.1 | 344 | 0.9 | 159 | 0.4 | 756 | 1.9 | 300 | 0.8 | 39,802 | 39,502 | 99.3 | 1,559 | 3.9 |
| 12 | 33,948 | 86.0 | 3,335 | 8.5 | 211 | 0.5 | 844 | 2.1 | 1,146 | 2.9 | 39,484 | 38,338 | 97.1 | 5,536 | 14.0 |
| K-12 | 492,826 | 94.3 | 10,078 | 1.9 | 1,425 | 0.3 | 11,982 | 2.3 | 6,165 | 1.2 | 522,476 | 516,311 | 98.8 | 29,650 | 5.7 |

Table Note: HS indicates aggregated Home School student records representing multiple grades and K indicates Kindergarten

SCHOOL IMMUNIZATION AUDIT DATA - KINDERGARTEN STUDENTS

During the 2021-22 school year:

- 98.3% of Iowa kindergarten students had valid Certificates of Immunization, Certificates of Immunization Exemption, or Provisional Certificates of Immunization and were compliant with Iowa law (39,445 records).
- 90.6% of Iowa kindergarten students had valid Certificates of Immunization and received all required vaccines (36,337 records).
- 9.4% of kindergarten students were under or un-immunized (3,774 records).
- 1.7% of enrolled kindergarten students had invalid or no certificates (666 records) (Figure 5 and Table 7).

Figure 5 Percent of Immunization Certificates by Type, Kindergarten, Iowa, 2011-12 to 2021-22

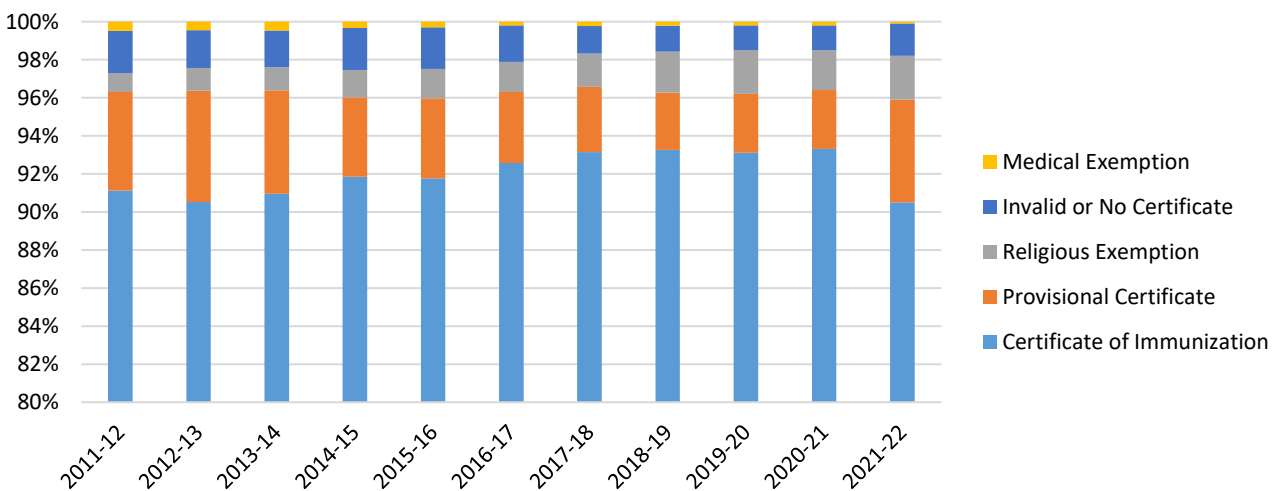


Figure Note: Vertical axis begins at 80%

Table 7 State Immunization Summary by Year, Kindergarten, Iowa, 2011-12 to 2021-22

| Year | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | Under and Un-Immunized | |
|---------|---------------------------|------|--------------------------|-----|------------|-----|---------|-----------|---------------------------|-----|----------------|--------------------------|------|------------------------|-----|
| | Total | % | Total | % | Total | % | Medical | Religious | Total | % | | Total | % | Total | % |
| 2011-12 | 36,500 | 91.1 | 2,076 | 5.2 | 193 | 0.5 | 398 | 1.0 | 886 | 2.2 | 40,053 | 39,167 | 97.8 | 3,553 | 8.9 |
| 2012-13 | 37,713 | 90.5 | 2,438 | 5.9 | 188 | 0.5 | 499 | 1.2 | 825 | 2.0 | 41,663 | 40,838 | 98.0 | 3,950 | 9.5 |
| 2013-14 | 37,587 | 91.0 | 2,246 | 5.4 | 193 | 0.5 | 498 | 1.2 | 801 | 1.9 | 41,325 | 40,524 | 98.1 | 3,738 | 9.0 |
| 2014-15 | 38,261 | 91.9 | 1,737 | 4.2 | 138 | 0.3 | 597 | 1.4 | 923 | 2.2 | 41,656 | 40,733 | 97.8 | 3,395 | 8.2 |
| 2015-16 | 37,824 | 91.8 | 1,730 | 4.2 | 119 | 0.3 | 635 | 1.5 | 907 | 2.2 | 41,215 | 40,308 | 97.8 | 3,391 | 8.2 |
| 2016-17 | 36,649 | 92.6 | 1,478 | 3.7 | 79 | 0.2 | 622 | 1.6 | 759 | 1.9 | 39,587 | 38,828 | 98.1 | 2,938 | 7.4 |
| 2017-18 | 36,917 | 93.2 | 1,356 | 3.4 | 93 | 0.2 | 694 | 1.8 | 572 | 1.4 | 39,632 | 39,060 | 98.6 | 2,715 | 6.9 |
| 2018-19 | 37,884 | 93.3 | 1,228 | 3.0 | 87 | 0.2 | 873 | 2.2 | 552 | 1.4 | 40,624 | 40,072 | 98.6 | 2,740 | 6.7 |
| 2019-20 | 38,022 | 93.2 | 1,255 | 3.1 | 68 | 0.2 | 936 | 2.3 | 531 | 1.3 | 40,812 | 40,281 | 98.7 | 2,790 | 6.8 |
| 2020-21 | 36,555 | 93.4 | 1,221 | 3.1 | 64 | 0.2 | 803 | 2.1 | 498 | 1.3 | 39,141 | 38,643 | 98.7 | 2,586 | 6.6 |
| 2021-22 | 36,337 | 90.6 | 2,146 | 5.4 | 49 | 0.1 | 913 | 2.3 | 666 | 1.7 | 40,111 | 39,445 | 98.3 | 3,774 | 9.4 |

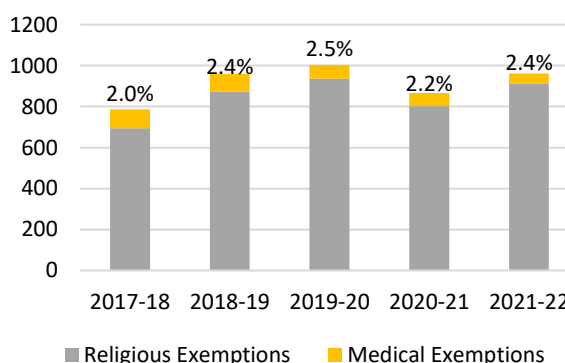
Kindergarten Students - Provisional Certificate of Immunization

- During the 2021-22 school year, 5.4% of kindergarten students had a Provisional Certificate of Immunization, representing 2,146 students.
- The number of Provisional certificates increased 75.8% (925 records) from the previous year and 58.3% (790 records) since the 2017-18 school year.

Kindergarten Students - Certificate of Immunization Exemption

- During the 2021-22 school year, 2.4% of kindergartners were reported to have an exemption, representing 962 students (Figure 6).
- Of the 962 exemptions, 913 (94.9%) were categorized as religious and 49 (5.1%) as medical.
- The number of Certificates of Immunization Exemptions increased 11.0% (95 records) from the previous year and 22.2% (175 records) since the 2017-18 school year.

Figure 6 Number and Percent of Exemptions by Type, Kindergarten, Iowa, 2017-18 to 2021-22



Medical Exemptions:

- During the 2021-22 school year, 0.1% of kindergarten students were reported to have a medical Certificate of Immunization Exemption, representing 49 students.
- The number of medical Certificates of Immunization Exemptions decreased 23.4% (15 records) from the previous year and 47.3% (44 records) since the 2017-18 school year.

Religious Exemptions:

- During the 2021-22 school year, 2.3% of kindergarten students were reported to have a religious Certificate of Immunization Exemption, representing 913 students.
- The number of religious Certificates of Immunization Exemptions increased 13.7% (110 records) from the previous year and 31.6% (219 records) since the 2017-18 school year.

Kindergarten Student - Vaccination Coverage by School Type

- During the 2021-22 school year, kindergartners enrolled in public schools had a higher percentage of Certificates of Immunization and Provisional Certificates of Immunization, and

lower percentage of invalid or no certificates and Certificates of Immunization Exemption compared to their peers enrolled in private schools.

- The statewide coverage levels for all vaccinations required at school entry in private and public schools was 86.0% and 91.0%, respectively, as represented by valid Certificates of Immunization.
- During the 2021-22 school year, 5.4% of kindergarten students enrolled in private schools reported an exemption, compared to 2.1% enrolled in public schools.
- During the 2021-22 school year, 14.0% of kindergarten students enrolled in private schools were under or un-immunized, compared to 9.0% enrolled in public schools (Table 8).

Table 8 Kindergarten Immunization Summary by School Type, Iowa, 2021-22

| Year | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | Under and Un-Immunized | |
|---------|---------------------------|------|--------------------------|-----|------------|-----|-----------|-----|---------------------------|-----|----------------|--------------------------|------|------------------------|------|
| | Total | % | Total | % | Medical | | Religious | | Total | % | | Total | % | Total | % |
| Private | 2,766 | 86.0 | 101 | 3.1 | 3 | 0.1 | 172 | 5.4 | 175 | 5.4 | 3,217 | 3,042 | 94.6 | 451 | 14.0 |
| Public | 33,571 | 91.0 | 2,045 | 5.5 | 46 | 0.1 | 741 | 2.0 | 491 | 1.3 | 36,894 | 36,403 | 98.7 | 3,323 | 9.0 |
| Total | 36,337 | 90.6 | 2,146 | 5.4 | 49 | 0.1 | 913 | 2.3 | 666 | 1.7 | 40,111 | 39,445 | 98.3 | 3,774 | 9.4 |

Kindergarten Students Under and Un-Immunized

- During the 2020-21 school year, 9.4% of kindergarten students were under or un-immunized and includes students with a Provisional Certificate of Immunization, Certificate of Immunization Exemption, or an invalid or no certificate, representing 3,774 students.
- The number of under/un-immunized students increased by 45.9% from the previous year (1,188 records) and 39.0% (1,059 records) since the 2017-18 school year.
- The largest percent increase in under immunized students was observed in the number of Provisional Certificates (75.8%), followed by invalid or no certificate (33.7%) and religious Certificates of Immunization Exemption (13.7%) (Table 9).

Table 9 Under-Immunized Students, Kindergarten, Iowa, 2017-18 to 2021-22

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|--|---------|---------|---------|---------|---------|
| Total Enrollment | 39,632 | 40,624 | 40,812 | 39,141 | 40,111 |
| Percent change in total enrollment | 0.1% | 2.5% | 0.5% | -4.1% | 2.5% |
| Certificate of Immunization Exemption-Medical | 93 | 87 | 68 | 64 | 49 |
| Percent change in number of Medical Exemptions from previous year | 17.7% | -6.5% | -21.8% | -5.9% | -23.4% |
| Certificate of Immunization Exemption-Religious | 694 | 873 | 936 | 803 | 913 |
| Percent change in number of Religious Exemptions from previous year | 11.6% | 25.8% | 7.2% | -14.2% | 13.7% |
| Provisional Certificate | 1,356 | 1,228 | 1,255 | 1,221 | 2,146 |
| Percent change in number of Provisional Certificate from previous year | -8.3% | -9.4% | 2.2% | -2.7% | 75.8% |
| Invalid or No Certificate | 572 | 552 | 531 | 498 | 666 |
| Percent change in number of Invalid or No Certificate from previous year | -24.6% | -3.5% | -3.8% | -6.2% | 33.7% |
| Total Under/Un-immunized | 2,715 | 2,740 | 2,790 | 2,586 | 3,774 |
| Percent of Under/Un-immunized Students | 6.9% | 6.7% | 6.8% | 6.6% | 9.4% |
| Percent change in number of Under/ Un-immunized from previous year | -7.6% | 0.9% | 1.8% | -7.3% | 45.9% |

SCHOOL IMMUNIZATION AUDIT DATA - 7TH GRADE STUDENTS

Iowa currently has two additional immunization requirements for all students entering, advancing or transferring into 7th grade, which may affect vaccination coverage:

- Beginning with the 2013-2014 school year, all students entering, advancing or transferring into 7th grade require proof of an adolescent tetanus, diphtheria and pertussis (whooping cough) booster immunization (Tdap) for school enrollment.
- Beginning with the 2017-2018 school year, all students entering, advancing or transferring into 7th grade and born after September 15, 2004, require proof of one dose of meningococcal conjugate vaccine (MenACWY).

During the 2021-22 school year:

- 97.4% of 7th grade students had valid Certificates of Immunization, Certificates of Immunization Exemption, or Provisional Certificates of Immunization and were compliant with Iowa law (39,334 records).
- 92.0% of 7th grade students had Certificates of Immunization, which is the statewide coverage level for all vaccinations required at child care entry (37,169 records).
- 8.0% of children were under or un-immunized (3,212 records).
- 2.6% of 7th grade students had invalid or no immunization certificates (1,047 records) (Figure 7 and Table 10).

Figure 7 Percent of Immunization Certificates by Type 7th Grade, Iowa, 2017-18 to 2021-22

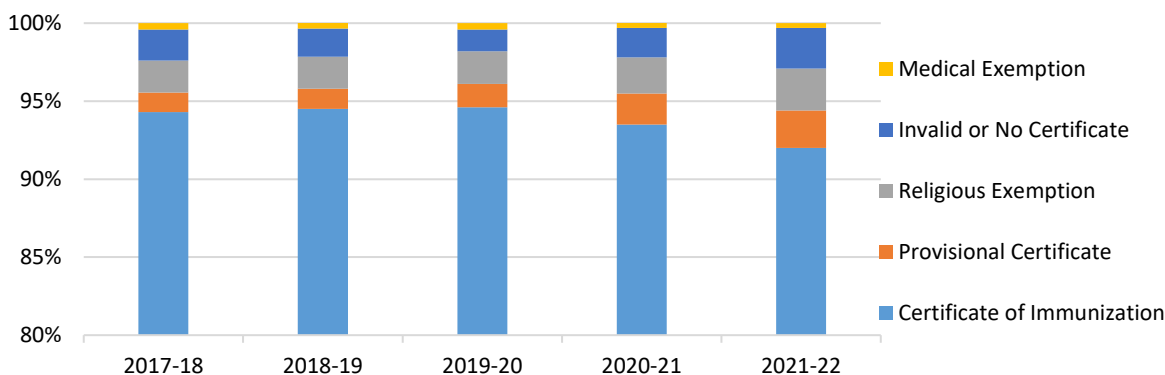


Figure Note: Vertical axis begins at 80%

Table 10 Immunization Certificates by Type 7th Grade, Iowa, 2017-18 to 2021-22

| Grade | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | | Under and Un-Immunized | |
|---------|---------------------------|------|--------------------------|-----|------------|-----------|-------|-----|---------------------------|-----|----------------|--------------------------|------|-------|------------------------|--|
| | Total | % | Total | % | Medical | Religious | Total | % | Total | % | | Total | % | Total | % | |
| 2017-18 | 37,760 | 94.3 | 502 | 1.3 | 166 | 0.4 | 820 | 2.1 | 796 | 2.0 | 40,044 | 39,248 | 98.0 | 2,284 | 5.7 | |
| 2018-19 | 39,262 | 94.5 | 537 | 1.3 | 152 | 0.4 | 850 | 2.1 | 749 | 1.8 | 41,550 | 40,801 | 98.2 | 2,288 | 5.5 | |
| 2019-20 | 39,782 | 94.6 | 621 | 1.5 | 151 | 0.4 | 896 | 2.1 | 607 | 1.4 | 42,057 | 41,450 | 98.6 | 2,275 | 5.4 | |
| 2020-21 | 38,997 | 93.5 | 825 | 2.0 | 150 | 0.4 | 957 | 2.3 | 789 | 1.9 | 41,718 | 40,929 | 98.1 | 2,721 | 6.5 | |
| 2021-22 | 37,169 | 92.0 | 954 | 2.4 | 107 | 0.3 | 1,104 | 2.7 | 1,047 | 2.6 | 40,381 | 39,334 | 97.4 | 3,212 | 8.0 | |

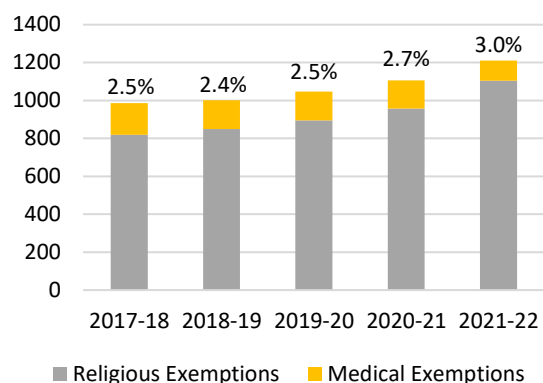
7th Grade Students - Provisional Certificate of Immunization

- During the 2021-22 school year, 2.4% of 7th grade students had a Provisional Certificate of Immunization (954 records).
- The number of Provisional Certificates increased from 2.0% (825 records) during the 2020-21 school year to 2.4% (954 records), which is a 15.6% increase (Figure 8 and Table 10).

7th Grade Students - Certificate of Immunization Exemption

- During the 2021-22 school year, 3.0% of 7th grade students were reported to have an exemption, representing 1,211 students (Figure 8).
- Of the 1,211 exemptions, 1,104 (91.2%) were categorized as religious and 107 (8.8%) as medical.
- The number of Certificates of Immunization Exemptions increased 9.4% (104 records) from the previous year and 22.8% (225 records) since the 2017-18 school year.

Figure 8 Number and Percent of Exemptions by Type, 7th Grade, Iowa, 2017-18 to 2021-22



Medical Exemptions:

- During the 2021-22 school year, 0.3% of 7th grade students were reported to have a medical Certificate of Immunization Exemption, representing 107 students.

Religious Exemptions:

- During the 2021-22 school year, 2.7% of 7th grade students were reported to have a religious Certificate of Immunization Exemption, representing 1,104 students.

7th Grade Students - Under and Un-Immunized

- During the 2021-22 school year, 8.0% of 7th grade students were under or un-immunized (3,212 records), as indicated by a Provisional Certificate of Immunization, Certificate of Immunization Exemption, or an invalid or no certificate.
- The number of under and un-immunized students increased 18.0% from the previous year and 40.6% since 2017-18 school year.
- The largest percent increase in under immunized students was observed in the number of invalid or no certificate (32.7%), followed by Provisional Certificates (15.6%), and religious Certificates of Immunization Exemption (15.4%) (Table 11).

Table 11 Under-Immunized Students, 7th Grade, Iowa, 2017-18 to 2021-22

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|---|---------|---------|---------|---------|---------|
| Total Enrollment | 40,044 | 41,550 | 42,057 | 41,718 | 40,381 |
| Percent Change in total enrollment | 1.5% | 3.8% | 1.2% | -0.8% | -3.2% |
| Certificate of Immunization Exemption-Medical | 166 | 152 | 151 | 150 | 107 |
| Percent Change in Number of Medical Exemptions from previous year | -13.5% | -8.4% | -0.7% | -0.7% | -28.7% |
| Certificate of Immunization Exemption-Religious | 820 | 850 | 896 | 957 | 1,104 |
| Percent Change in Number of Religious Exemptions from previous year | 28.5% | 3.7% | 5.4% | 6.8% | 15.4% |
| Provisional Certificate | 502 | 537 | 621 | 825 | 954 |
| Percent Change in Number of Provisional Certificates from previous year | -76.8% | 7.0% | 15.6% | 32.9% | 15.6% |
| Invalid or No Certificate | 796 | 749 | 607 | 789 | 1,047 |
| Percent Change in Number of Invalid or No Certificates from previous year | -29.7% | -5.9% | -19.0% | 30.0% | 32.7% |
| Total Under/Un-immunized | 2,284 | 2,288 | 2,275 | 2,721 | 3,212 |
| Percent of Under/Un-immunized Students | 5.7% | 5.5% | 5.4% | 6.5% | 8.0% |
| Percent change in number of Under/ Un-immunized from previous year | -44.7% | 2.0% | -0.6% | 19.6% | 18.0% |

SCHOOL IMMUNIZATION AUDIT DATA - 12TH GRADE STUDENTS

Iowa has an additional vaccine requirement for students enrolling in 12th grade. Beginning with the 2017-18 school year, all students entering, advancing or transferring into 12th grade and born after September 15, 1999 need proof of two doses of meningococcal (A, C W, Y) vaccine (one dose received on or after 16 years of age); or one dose if received when the student was 16 years of age or older. This vaccine requirement has directly affected the immunization audits for 12th grade students.

Compared to other grades in the 2021-22 school year, 12th grade students were reported to have:

- Lowest percent of valid immunization certificates at 97.1% (38,338 records)
- Lowest percent of Certificates of Immunization at 86.0% (33,948 records)
- Highest percent of Provisional Certificates of Immunization at 8.4% (3,335 records)
- Highest percent of invalid or no certificates at 2.9% (1,146 records)
- Highest percent of medical Certificates of Immunization Exemption at 0.5% (211 records)
- Highest percent of under and un-immunized students at 14.0%, (5,536 records)

The decrease in the number of Certificates of Immunization during the 2021-22 school year resulted in a 59.7% increase in the number of under and un-immunized students compared to the previous school year (Figure 9 and Table 12).

Figure 9 Percent of Immunization Certificates by Type, 12th Grade, Iowa, 2017-18 to 2021-22

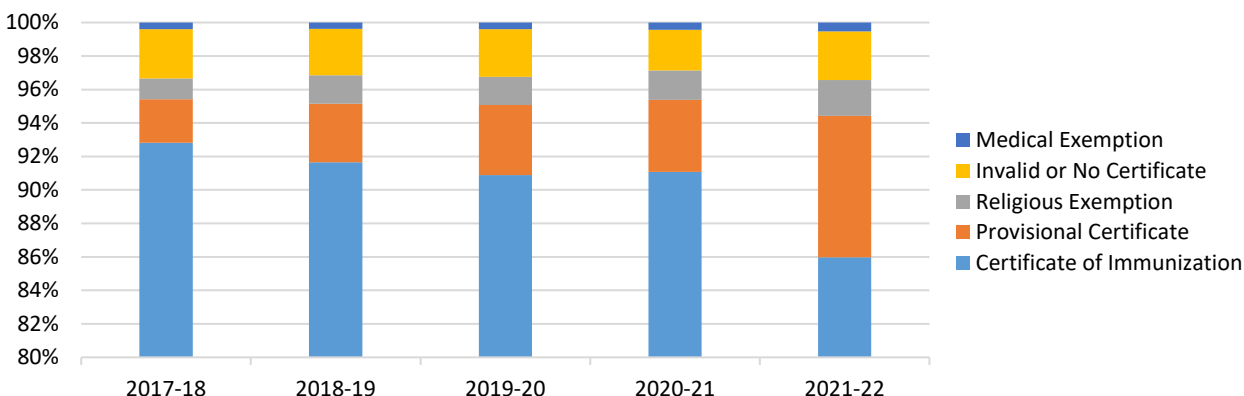


Figure Note: Vertical axis begins at 80%

Table 12 State Immunization Summary, 12th Grade, Iowa, 2017-2018 to 2021-22

| Year | Immunization Certificates | | Provisional Certificates | | Exemptions | | | | Invalid / No Certificates | | Total Enrolled | Total Valid Certificates | | | Under and Un-Immunized | |
|---------|---------------------------|------|--------------------------|-----|------------|-----------|-------|-----|---------------------------|-----|----------------|--------------------------|------|-------|------------------------|--|
| | Total | % | Total | % | Medical | Religious | Total | % | Total | % | | Total | % | Total | % | |
| 2017-18 | 36,066 | 92.8 | 1,013 | 2.6 | 156 | 0.4 | 485 | 1.3 | 1,140 | 2.9 | 38,860 | 37,720 | 97.1 | 2,794 | 7.2 | |
| 2018-19 | 35,540 | 91.7 | 1,355 | 3.5 | 148 | 0.4 | 660 | 1.7 | 1,076 | 2.8 | 38,779 | 37,703 | 97.2 | 3,239 | 8.4 | |
| 2019-20 | 35,435 | 90.9 | 1,627 | 4.2 | 156 | 0.4 | 655 | 1.7 | 1,111 | 2.8 | 38,984 | 37,873 | 97.2 | 3,549 | 9.1 | |
| 2020-21 | 35,415 | 91.1 | 1,671 | 4.3 | 165 | 0.4 | 683 | 1.8 | 948 | 2.4 | 38,882 | 37,934 | 97.6 | 3,467 | 8.9 | |
| 2021-22 | 33,948 | 86.0 | 3,335 | 8.4 | 211 | 0.5 | 844 | 2.1 | 1,146 | 2.9 | 39,484 | 38,338 | 97.1 | 5,536 | 14.0 | |

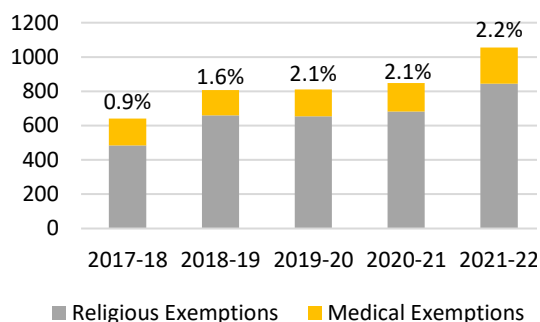
12th Grade Students - Provisional Certificate of Immunization

- During the 2021-22 school year, 8.4% of 12th grade students had a Provisional Certificate of Immunization (3,335 records).
- The number of Provisional Certificates increased from 4.3% (1,671 records) during the 2020-21 school year to 8.4%, which is a 99.6% increase (Figure 10 and Table 12).
- Twelfth grade accounted for 33.1% of all Provisional Certificates issued to K-12 students.

12th Grade Students - Certificate of Immunization Exemption

- During the 2021-22 school year, 2.7% (1,055 records) of 12th graders were reported to have an exemption.
- Of the 1,055 exemptions, 844 (80.0%) were categorized as religious and 211 (20.0%) as medical (Table 11 and Figure 11).
- The number of Certificates of Immunization Exemptions increased 24.4% (207 records) from the previous year and 64.6% (414 records) since the 2017-18 school year.

Figure 10 Number and Percentage of Exemptions by Type, 12th Grade, Iowa, 2017-18 to 2021-22



Medical Exemptions:

- During the 2021-22 school year, 0.5% of 12th grade students were reported to have a medical Certificate of Immunization Exemption, representing 211 students.

Religious Exemptions:

- During the 2021-22 school year, 2.1% of 12th grade students were reported to have a religious Certificate of Immunization Exemption, representing 844 students.

12th Grade Students - Under and Un-Immunized

- During the 2021-22 school year, 14.0% of 12th grade students were under or un-immunized (5,536 records), as indicated by a Provisional Certificate of Immunization, Certificate of Immunization Exemption, or an invalid or no certificate.
- The number of under and un-immunized students increased 59.7% from the previous year and 98.1% since 2017-18 school year.
- The largest percent increase in under immunized students was observed in the number of Provisional Certificates (99.6%), followed by medical Certificates of Immunization Exemption (27.9%), religious Certificates of Immunization Exemption (23.6%), and invalid or no certificate (20.9%) (Table 13).

Table 13 Under-Immunized Students, 12th Grade, Iowa, 2017-18 to 2021-22

| | 2017-18 | 2018-19 | 2019-20 | 2020-21 | 2021-22 |
|---|---------|---------|---------|---------|---------|
| Total Enrollment | 38,860 | 38,779 | 38,984 | 38,882 | 39,484 |
| Percent change in total enrollment | 0.2% | -0.2% | 0.5% | -0.3% | 1.5% |
| Certificate of Immunization Exemption-Medical | 156 | 148 | 156 | 165 | 211 |
| Percent change in number of Medical Exemptions from previous year | 41.8% | -5.1% | 5.4% | 5.8% | 27.9% |
| Certificate of Immunization Exemption-Religious | 485 | 660 | 655 | 683 | 844 |
| Percent change in number of Religious Exemptions from previous year | 102.9% | 36.1% | -0.8% | 4.3% | 23.6% |
| Provisional Certificate | 1,013 | 1,355 | 1,627 | 1,671 | 3,335 |
| Percent change in number of Provisional Certificates from previous year | 259.2% | 33.8% | 20.1% | 2.7% | 99.6% |
| Invalid or No Certificate | 1,140 | 1,076 | 1,111 | 948 | 1,146 |
| Percent change in number of Invalid or No Certificates from previous year | 245.5% | -5.6% | 3.3% | -14.7% | 20.9% |
| Total Under/Un-immunized | 2,794 | 3,239 | 3,549 | 3,467 | 5,536 |
| Percent of Under/Un-immunized Students | 7.2% | 8.4% | 9.1% | 8.9% | 14.0% |
| Percent change in number of Under/ Un-immunized from previous year | 190.7% | 15.9% | 9.6% | -2.3% | 59.7% |

SUMMARY

State vaccination requirements for child care and school entry are important tools for maintaining high vaccination coverage rates and in turn, lower rates of vaccine-preventable diseases. While immunization rates in Iowa are consistent with or exceed national averages, pockets of under and un-immunized children leave themselves and their communities vulnerable to vaccine-preventable diseases. While the data in this report demonstrate trends, school audit data do not provide a full picture of all children's immunization history. Vaccination and exemption status reflects the child's status at the time of the audit. Some children may be in the process of receiving required vaccines and final vaccination or exemption status may change after completion of the audit (Provisional Certificates, Medical Exemptions and invalid records). In addition, some students with Religious Exemptions may have received some of the required vaccines.

All states allow for medical exemptions, eight states do not allow religious exemptions and six (Connecticut, California, Maine, Mississippi, New York and West Virginia) do not allow exemptions for religious or philosophical reasons. Iowa law allows for medical and religious exemptions. Iowa's 2021-22 exemption rates are comparable to available national data from the 2020-21 school year (Table 14).

Table 14 Immunization Summary and Exemptions in Iowa and United States, 2020-21 and 2021-22

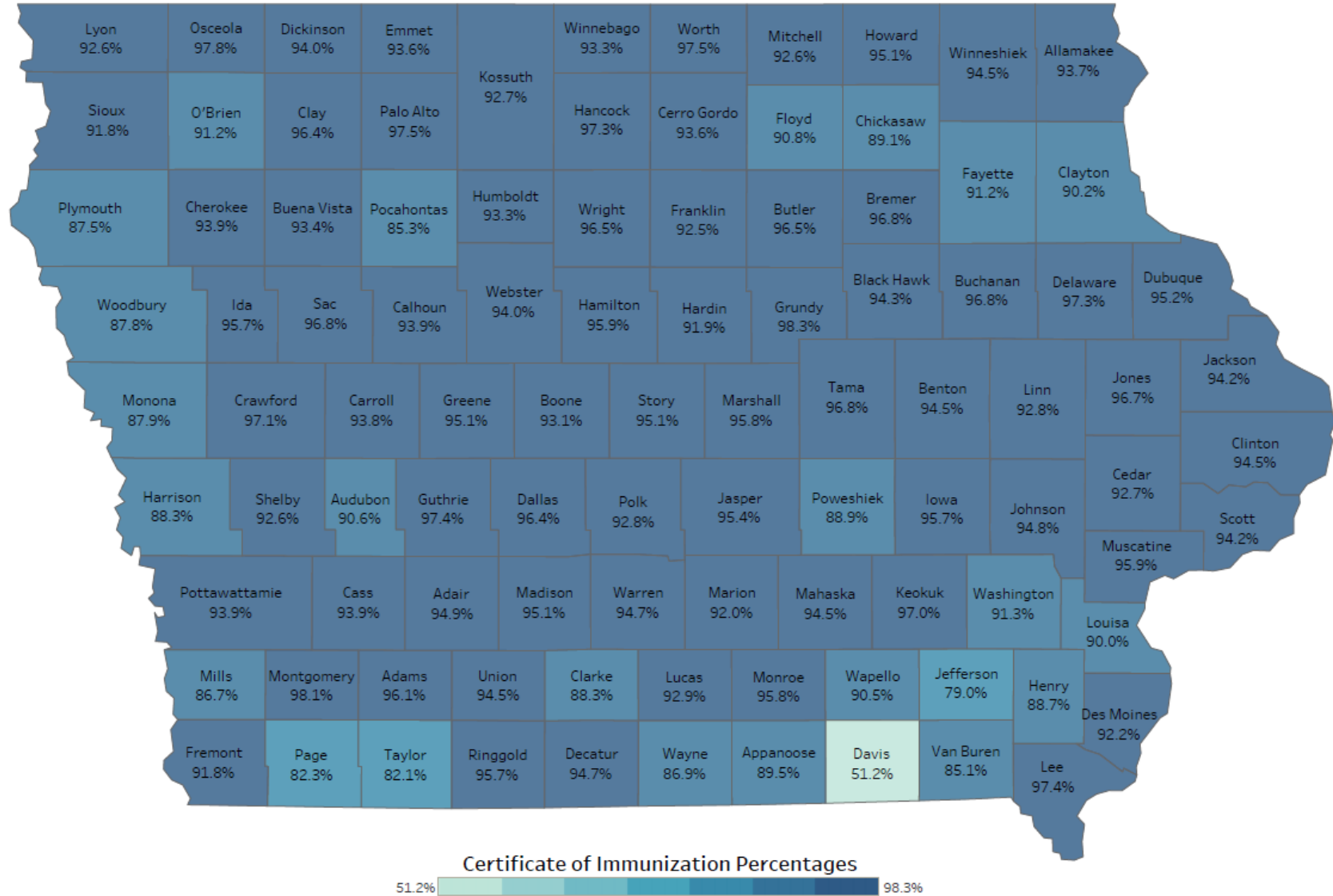
| | Iowa Child Care | Iowa Kindergarten | Iowa Kindergarten - 12th grade | National 2020-2021 (Kindergarten only) |
|---|-----------------|-------------------|--------------------------------|---|
| Percent Valid Certificates | 96.4% | 98.3% | 98.8% | |
| Certificate of Immunization | 93.3% | 90.6% | 94.3% | |
| Provisional Certificates | 1.4% | 5.4% | 1.9% | 2.0% (Range 0.1 – 10.0%) |
| Certificate of Immunization Exemption-Medical | 0.1% | 0.1% | 0.3% | 0.2% (Range <0.1 – 0.8%) |
| Certificate of Immunization Exemption-Religious | 1.7% | 2.3% | 2.3% | 1.9% (Non-medical Exemptions Range 0.3– 7.9%) |
| Invalid or No Certificate | 3.6% | 1.7% | 1.2% | 3.4% |

Data Note: Source of national kindergarten data available at <https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/pubs-resources.html>.

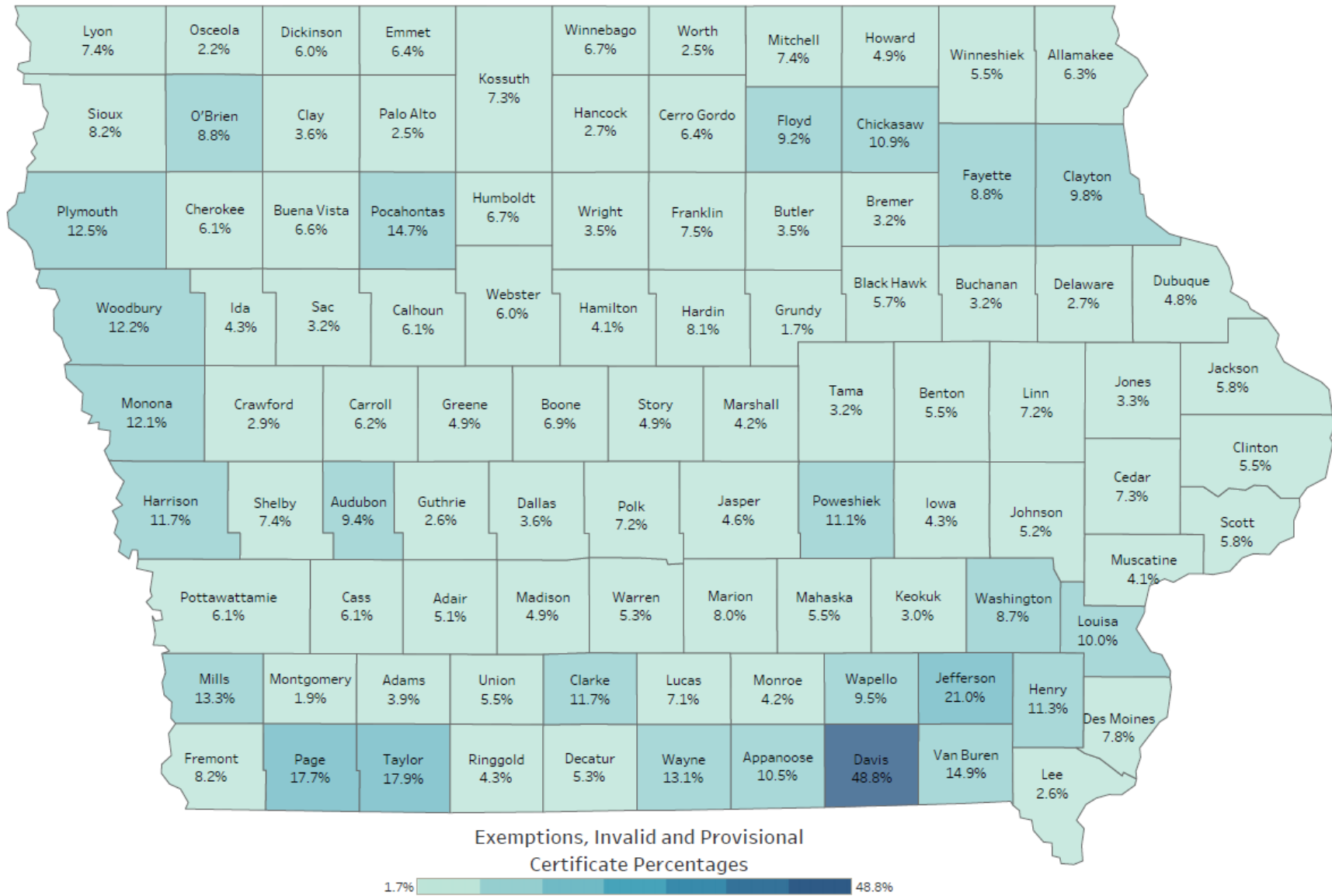
Studies have found individuals claiming exemptions from immunization are at a greater risk of contracting vaccine-preventable diseases. States with lower immunization rates have higher rates of vaccine-preventable diseases. The IDPH Immunization Program continues to monitor immunization exemption rates, identify clusters of un-immunized children and provide education and information to address vaccine safety concerns. Vaccines prevent diseases and save lives. Immunize for a better life.

Appendix A - Supplemental Maps

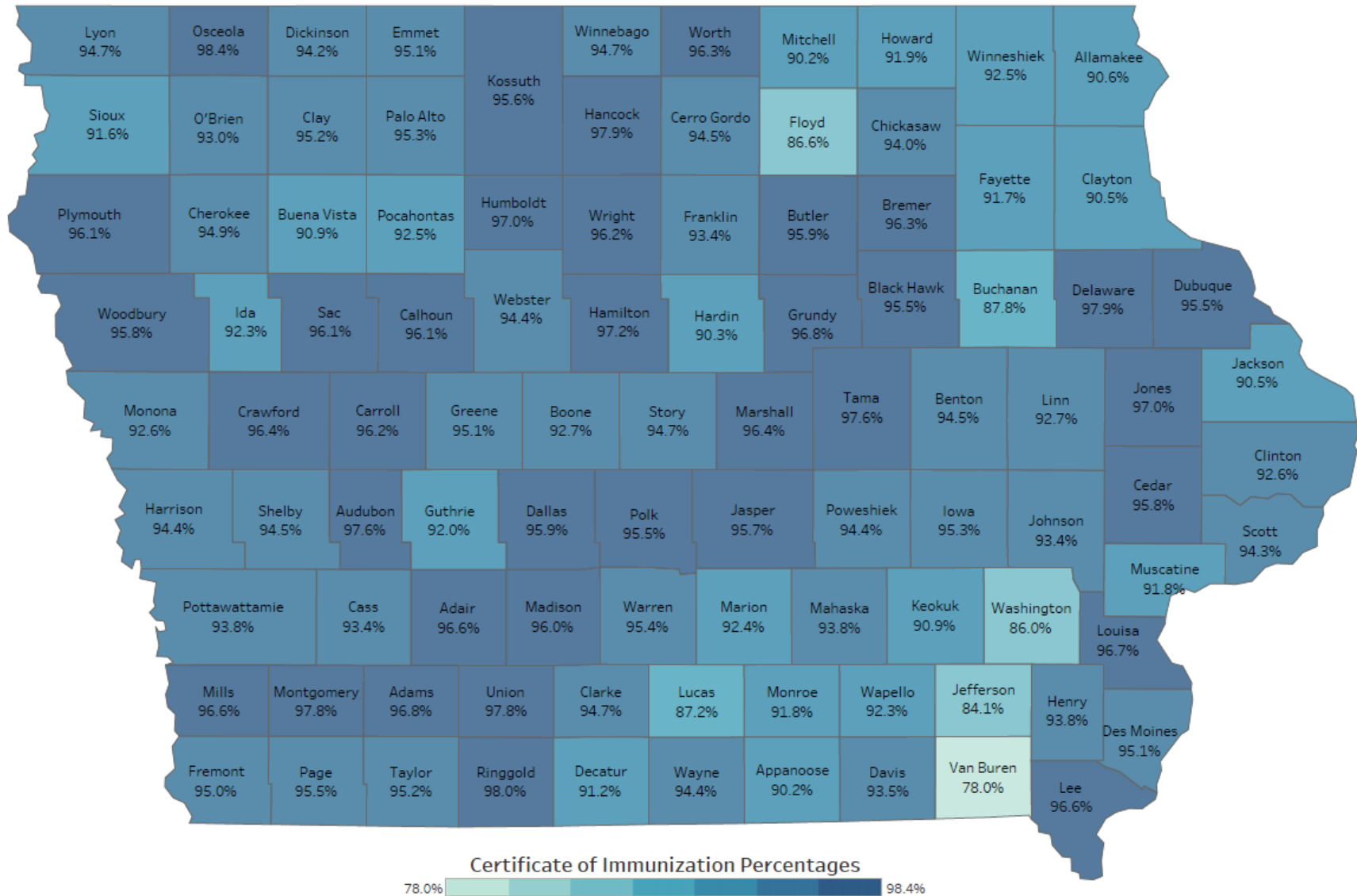
Appendix 1. Percent of Child Care Attendees with a Certificate of Immunization by County, Iowa, 2021-22 School Year



Appendix 2. Percent of Child Care Attendees who are Under or Un-immunized by County, Iowa, 2021-22 School Year
Attendees with a Certificate of Religious or Medical Exemption, Provisional Certificate, or Invalid/No Certificate

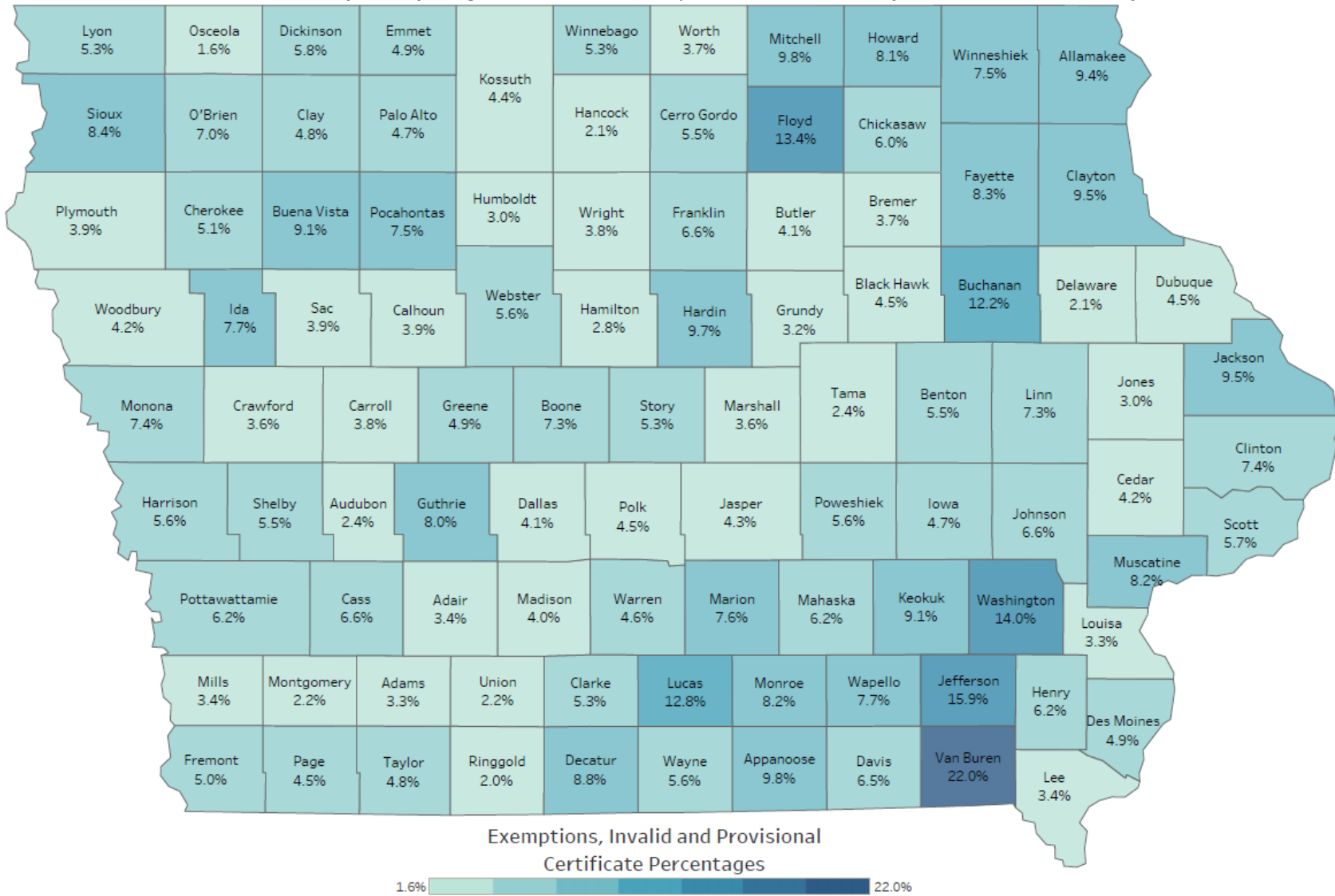


Appendix 3. Percent of Students Kindergarten through 12th Grade with a Certificate of Immunization by County, Iowa, 2021-22 School Year

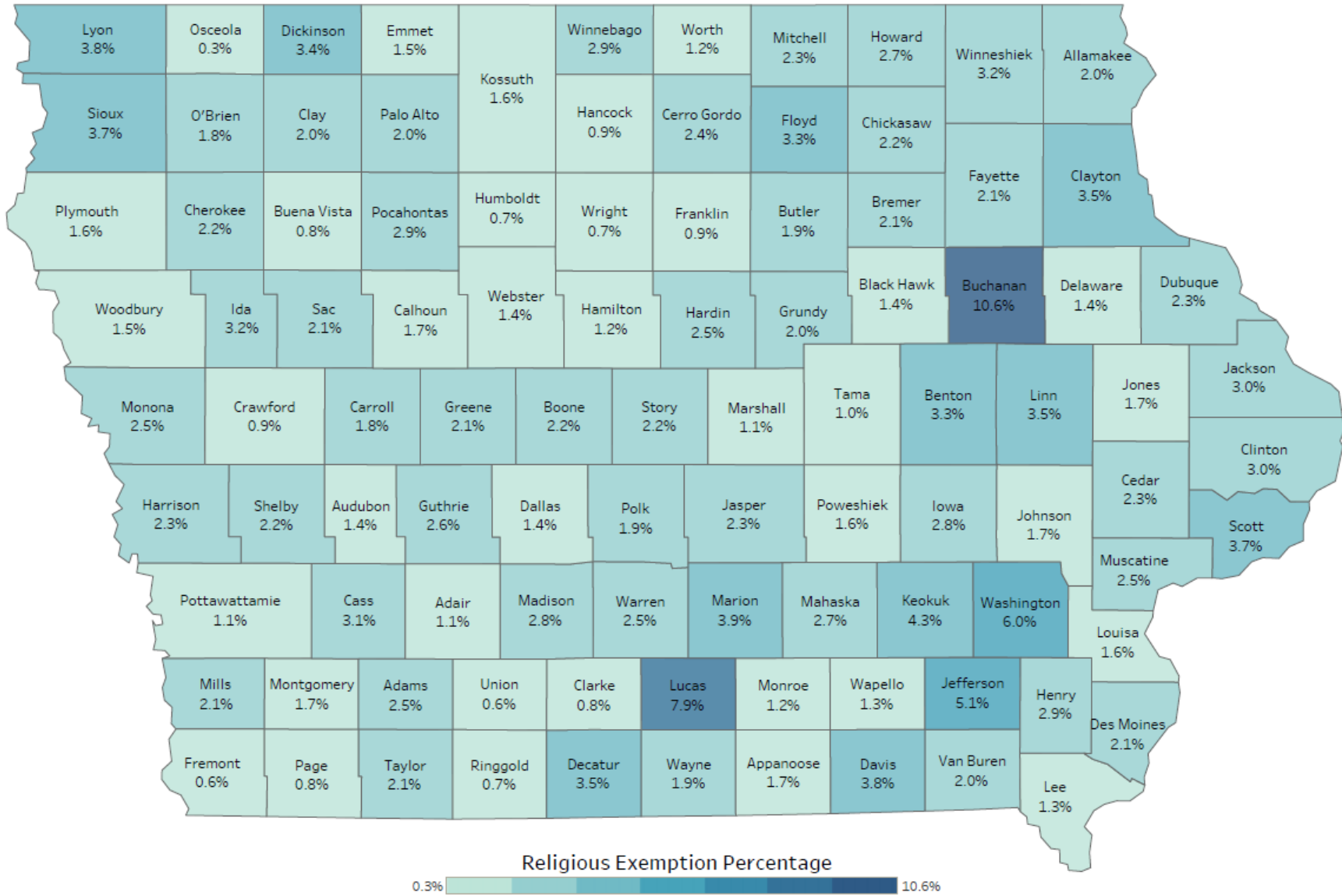


Appendix 4. Percent of Students Kindergarten through 12th Grade who are Under or Un-immunized by County, Iowa, 2021-22 School Year

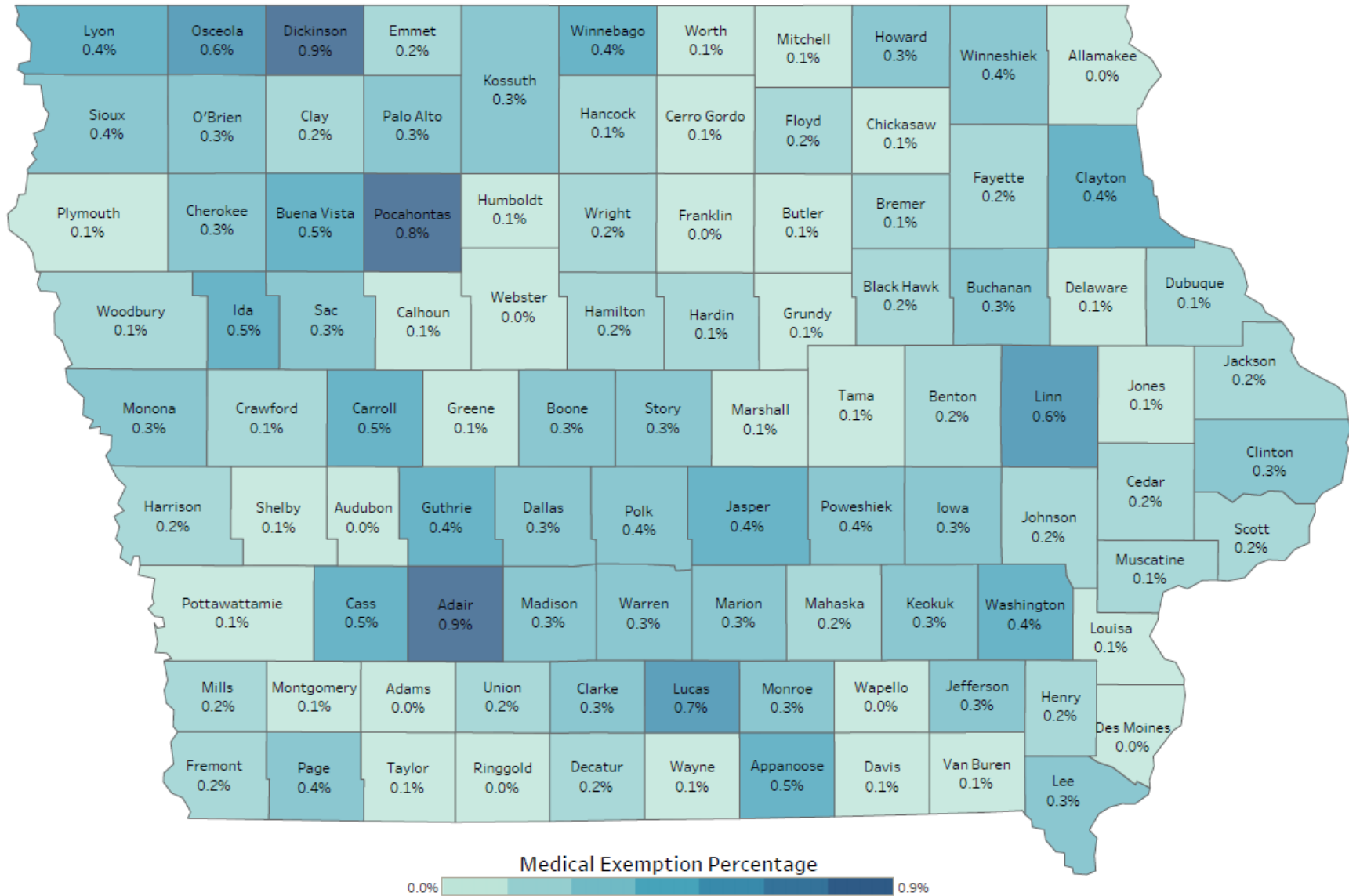
Students with a Certificate of Religious or Medical Exemption, Provisional Certificate, or Invalid/No Certificate



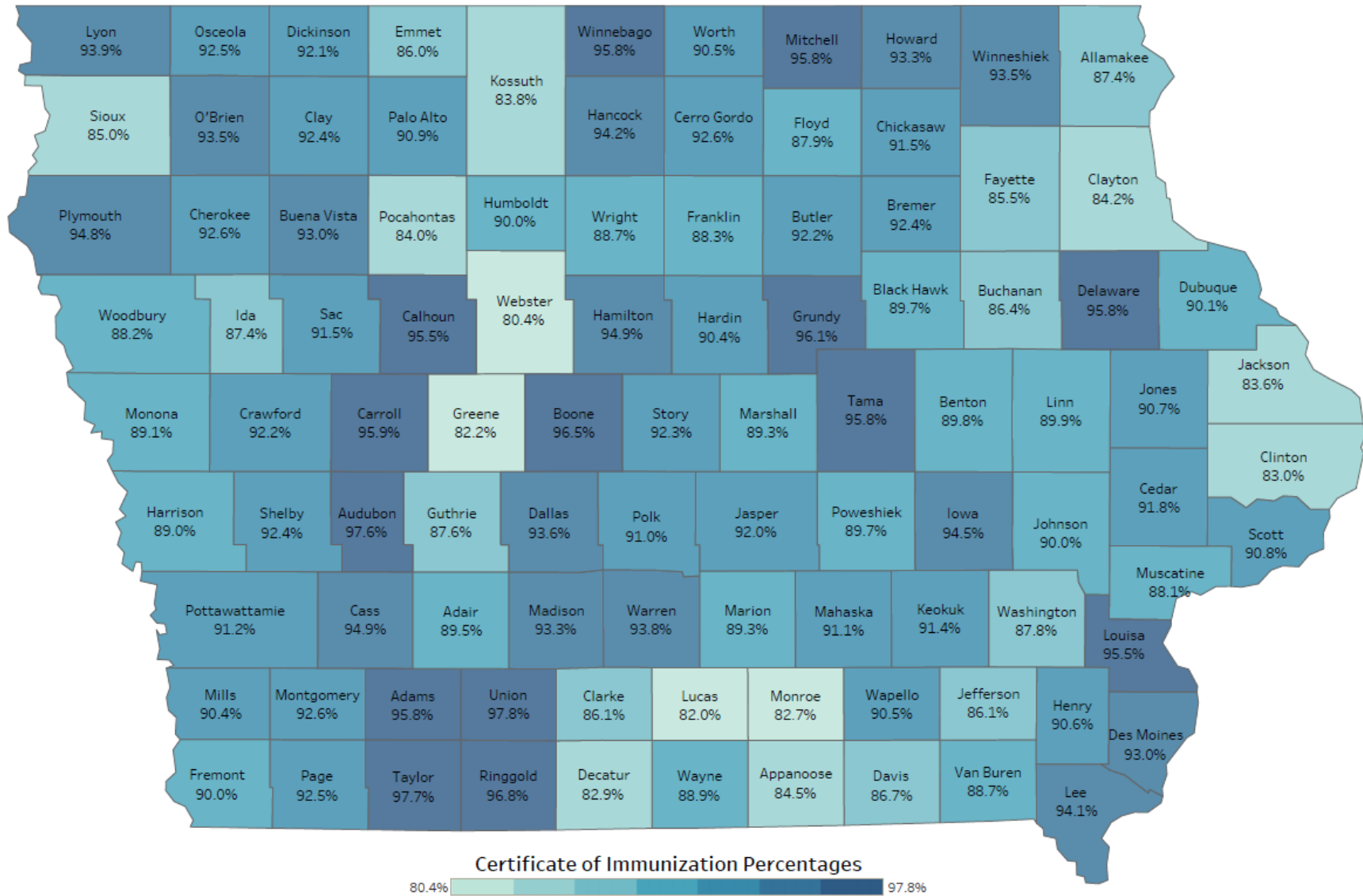
Appendix 5. Percent of Students Kindergarten through 12th Grade with a Religious Certificate of Immunization Exemption by County, Iowa, 2021-22 School Year



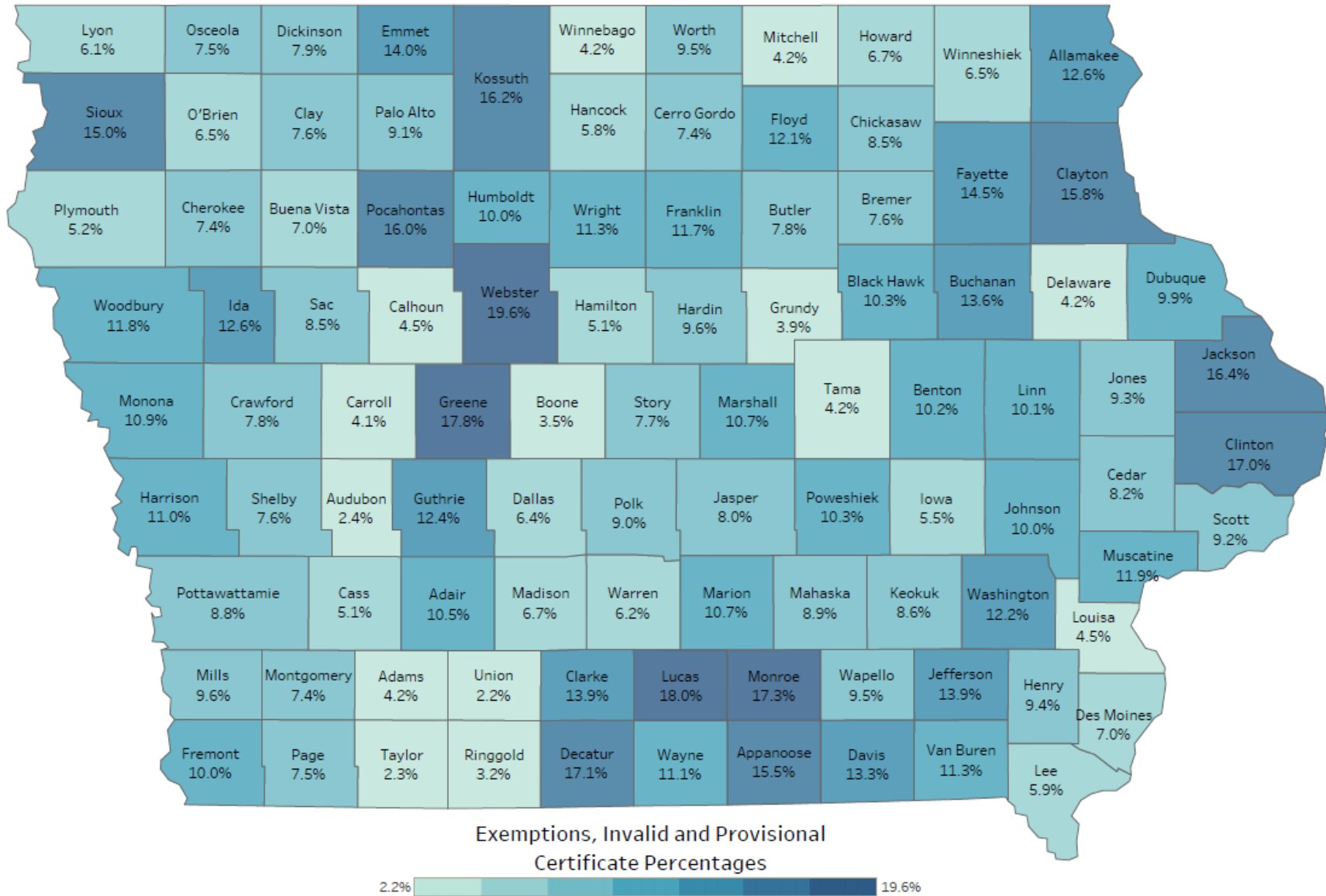
Appendix 6. Percent of Students Kindergarten through 12th Grade with a Medical Certificate of Immunization Exemption by County, Iowa, 2021-22 School Year



Appendix 7. Percent of Kindergarten Students with a Certificate of Immunization by County, Iowa, 2021-22 School Year

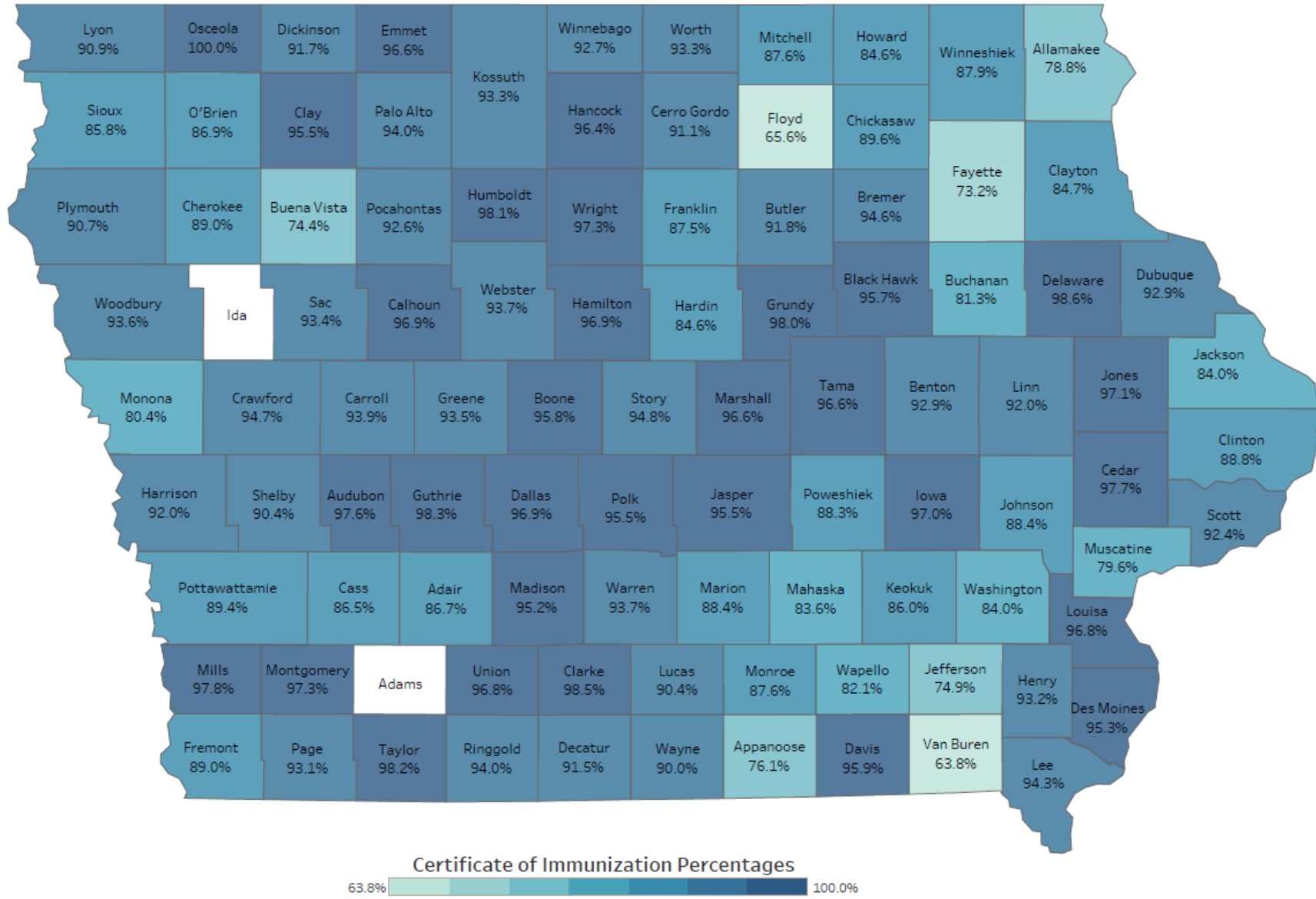


Appendix 8. Percent of Kindergarten Students who are Under or Un-immunized by County, Iowa, 2021-2022 School Year
Students with a Certificate of Religious or Medical Exemption, Provisional Certificate, or Invalid/No Certificate



Appendix 9. Percent of Seventh Grade Students with a Certificate of Immunization by County, Iowa, 2021-2022 School Year

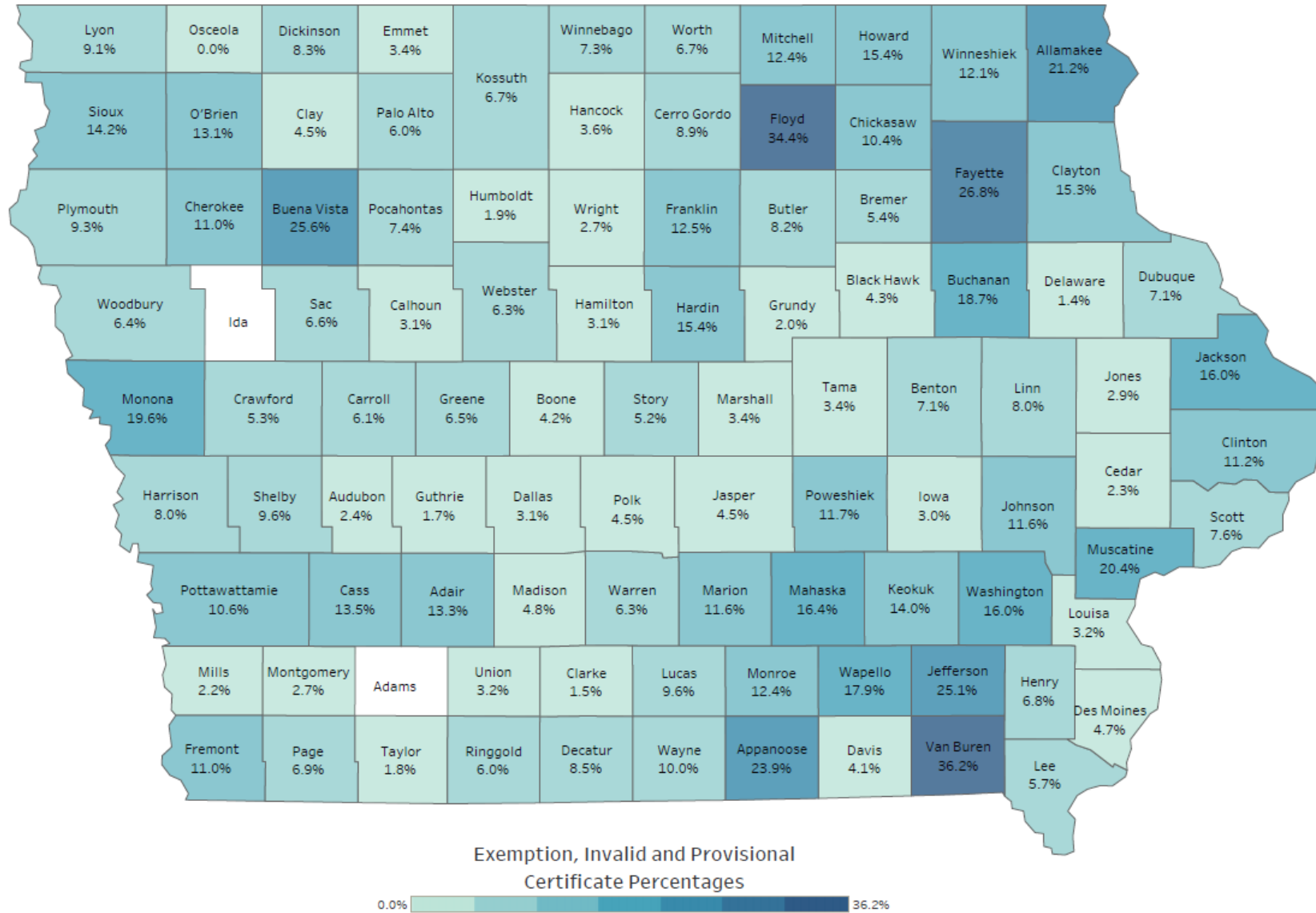
Map Note: Data are collected by location of school, not county of residence of students. Ida and Adams counties do not include 7th grade students.



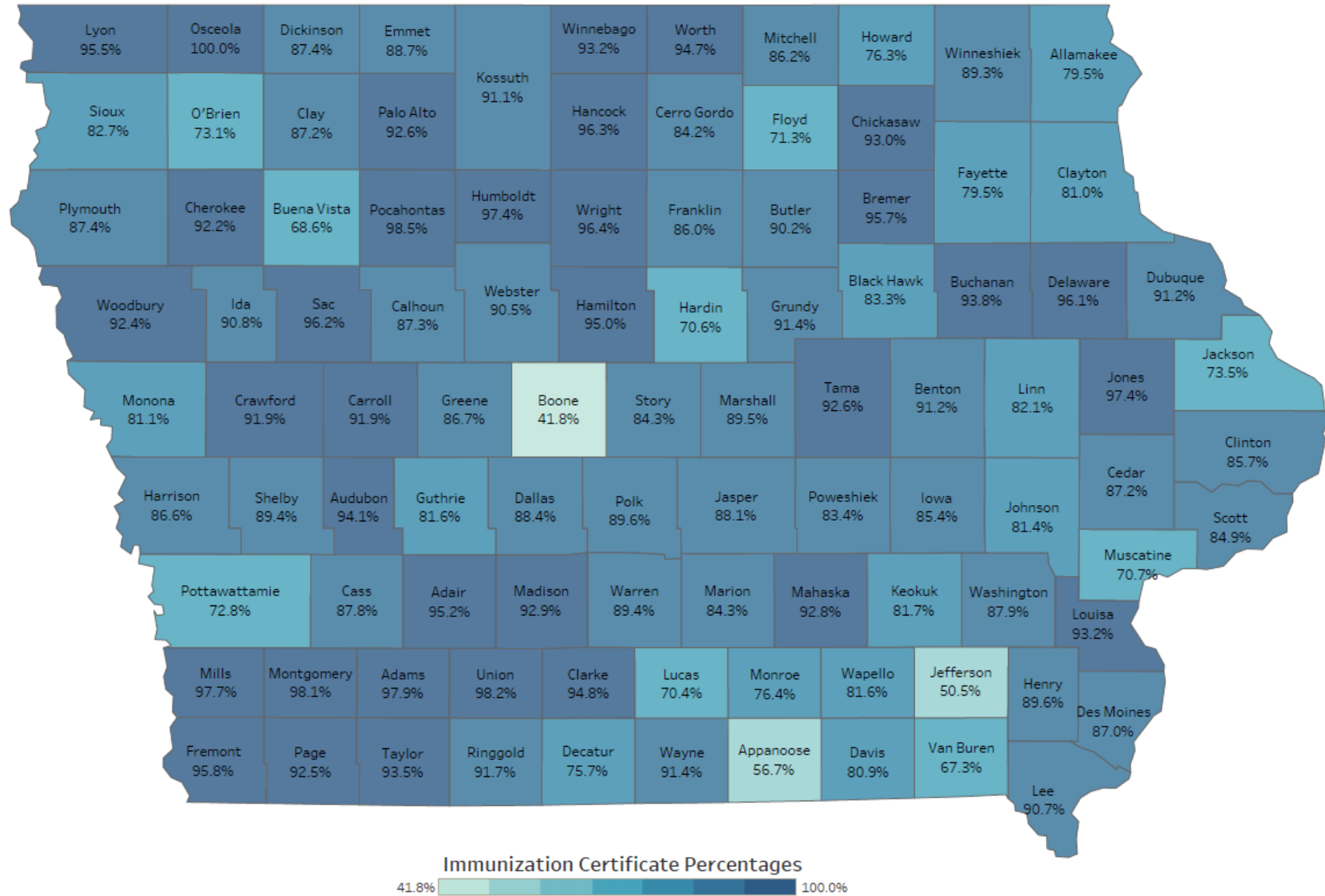
Appendix 10. Percent of Seventh Grade Students who are Under or Un-immunized by County, Iowa, 2021-2022 School Year

Students with a Certificate of Religious or Medical Exemption, Provisional Certificate, or Invalid/No Certificate

Map Note: Data are collected by location of school, not county of residence of students. Ida and Adams counties do not include 7th grade students.



Appendix 11. Percent of 12th Grade Students with a Certificate of Immunization by County, Iowa, 2021-2022 School Year



Appendix 12. Percent of 12th Grade Students who are Under or Un-immunized by County, Iowa, 2021-2022 School Year
Students with a Certificate of Religious or Medical Exemption, Provisional Certificate, or Invalid/No Certificate

