



# **2013 Influenza Vaccination Coverage Report for Health Care Workers in Colorado**

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## Introduction

Influenza is a highly contagious and serious respiratory illness. Certain groups are especially vulnerable, including the elderly, young children, and people with chronic medical conditions. Based on surveillance data, influenza causes from 500 to more than 1,500 hospitalizations in Colorado each year. Mortality estimates suggest that, on an annual basis, influenza may contribute to as many as 600 deaths in Colorado. Health care workers (HCWs) regularly come into contact with these vulnerable patients, so a high level of HCW vaccination coverage is an essential part of an infection prevention and control program to prevent the transmission of infection, hospitalization, or even death.

## Background

On behalf of the Colorado Department of Public Health and Environment (CDPHE), the Health Facilities and Emergency Medical Services Division (HFEMSD) and Immunization Section partnered to convene stakeholders across the state to determine the best way to protect these vulnerable populations. After more than a year of discussions on this topic, in February 2012, the Colorado Board of Health (BOH) passed rule 6 CCR 1011-1 Chap 02, regarding influenza vaccination of employees in licensed healthcare facilities.

The intent of the rule is to promote patient safety, by protecting vulnerable patients from influenza. The rule is designed to encourage healthcare entities, which are already appropriately implementing strategies to prevent influenza, to continue to do so; to assist those entities that can improve; and to prompt entities to adopt more effective policies to prevent influenza.

This rule applies to all healthcare facilities licensed by the CDPHE. There are two requirements of this rule:

1. All licensed healthcare facilities must keep track of the number of its employees that are vaccinated against influenza, and annually report that number to CDPHE, either through the HFEMSD Portal, or the National Healthcare Safety Network (NHSN).
2. If certain vaccination thresholds are met, facilities are eligible to be exempted from policy implementation requirements. The thresholds required for this exemption are as follows:
  - 60% of all employees vaccinated by December 31, 2012
  - 75% of all employees vaccinated by December 31, 2013
  - 90% of all employees vaccinated by December 31, 2014 and thereafter
3. If certain vaccination thresholds are not met, facilities are required to implement a policy based on its facility type.
  - If a facility is classified as a general hospital, hospital unit, ambulatory surgical center, or long-term care facility, the facility will need to implement an influenza vaccination policy for its healthcare workers, to ensure that each worker has been vaccinated, or has a medical exemption documented. Unvaccinated workers must wear a surgical/procedure mask through the entire influenza season.
  - If a facility is classified as an assisted living residence, community clinic, community mental health center, facility for persons with developmental disabilities, hospice, dialysis treatment clinic, home care agency, psychiatric hospital, rehabilitation hospital, convalescent center, or acute treatment unit, the facility will need to conduct an assessment of its workforce, residents/patients, and influenza vaccination policies, and develop an influenza vaccination policy regarding the vaccination or masking of employees based on that assessment.

Below is a summary of data reported in 2012 and 2013, per the rule requirements:

<b>Data Reported in 2012</b>	<b>Data Reported in 2013</b>
1449 (72%) out of 2020 facilities reported data	1324 (62%) out of 2149 facilities reported data
76 facilities reported data via NHSN	66 facilities reported data via NHSN
1373 facilities reported data via CDPHE Portal	1268 facilities reported data via CDPHE Portal

Of the 1324 reporting facilities with at least one HCW:

<b>Data Reported in 2012</b>	<b>Data Reported in 2013</b>
1136 (78%) had at least 60% of their HCWs vaccinated	N/A had at least 60% of HCWs vaccinated
913 (63%) had at least 75% of their HCWs vaccinated	1006 (76%) had at least 75% of their HCWs vaccinated
616 (43%) had at least 90% of their HCWs vaccinated	717 (54%) had at least 90% of their HCWs vaccinated
100% of their HCWs vaccinated not calculated	295 (22%) had 100% of their HCWs vaccinated

## Summary

The following pages contain figures and tables that provide a comprehensive view of the data collected in the first two years of reporting.

Further research is needed to understand the reasons for non-reporting by facilities, and the reasons why some reporting facilities do not meet the thresholds detailed in the rule. The CDPHE immunization branch will be encouraging all local public health agencies (LPHA) to review the list of facilities in their jurisdiction who did not report, and those who did not meet the threshold. Support and reporting guidance offered by the LPHA may increase the percentage of reporting facilities, and the percentage of all facilities who meet the threshold.

For general information about the Board of Health Healthcare Worker Influenza Vaccination Rule requirements, please call 303-692-2836.

All licensed health care facilities in Colorado are required to report the number of staff immunized against influenza. In 2013 62% of facilities submitted the required information as compared to 72% in 2012 (Figure 1). While the number of facilities required to report grew from 2012 to 2013, both the number and percentage of facilities that submitted reports declined.

Figure 1. Number of Facilities Required to Report and Percentage that Reported by Year, 2012-2013

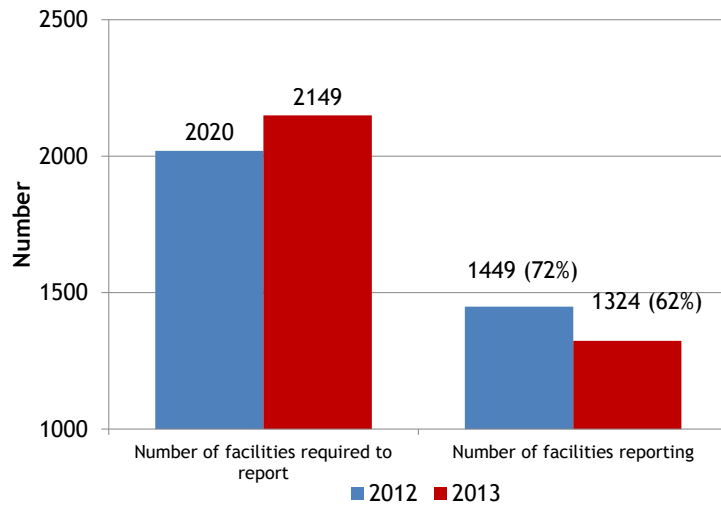
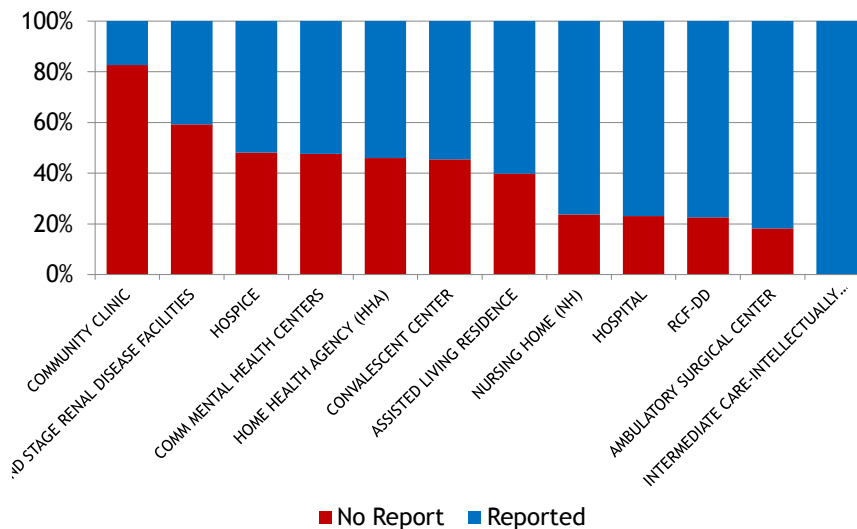


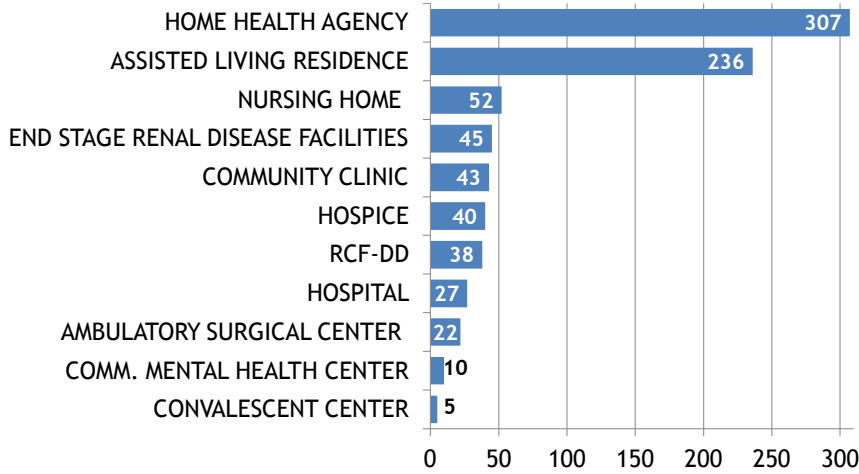
Figure 2 lists the percentage of facilities that submitted an immunization report, by facility type. The hospital category includes acute treatment units, birthing centers, psychiatric hospitals and hospital units.

Figure 2. Percentage Reporting by Facility Type, 2013



In 2013, intermediate care facilities for the intellectually disabled were the most likely to report (100%), and community clinics were the least likely to report (17%). Looking at absolute numbers, the category with the greatest number of on non-reporting facilities was home health agencies at 307(of a total 663) (Figure 3).

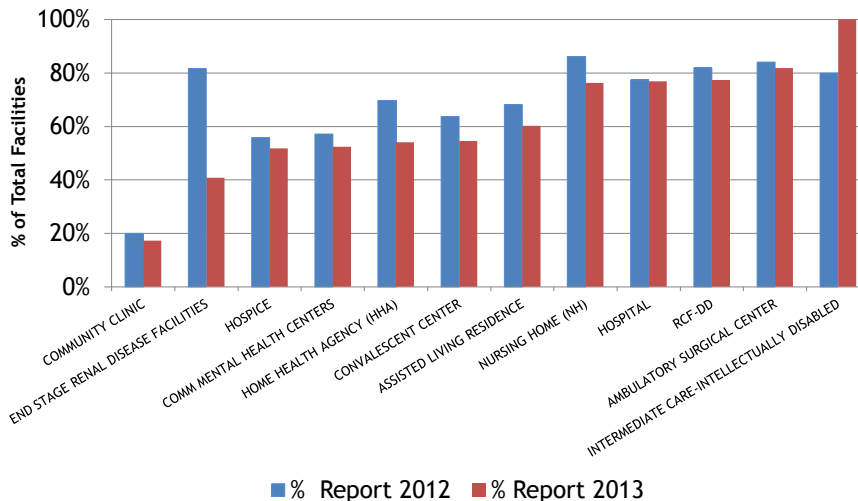
Figure 3. Number NOT Reporting by Facility Type - 2013



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Figure 4 compares reporting rates, by facility type, in 2012 and 2013. From 2012 to 2013, the percentage of intermediate care facilities for the intellectually disabled increased. Reporting rates for all other facility types declined. Reporting rates for End Stage Renal Disease Facilities and Home Health Agencies declined most substantially (Figure 4.). In 2013 an additional 105 home health agencies were added to the list of facilities required to report. The time needed to institute the reporting requirement in the additional facilities may have resulted in an increase in the percentage of facilities not reporting in 2013.

Figure 4. Percentage Reporting by Facility Type, 2012 - 2013



As shown in Figure 5, for 2013, more than half of reporting facilities had 90% or greater of their staff immunized - an increase from 43% in 2012. In 2012, 22% of facilities had < 60% of staff immunized which dropped to 15% in 2013.

Figure 5. Percentage of Staff Receiving Influenza Immunization for Reporting Facilities, 2012-2013

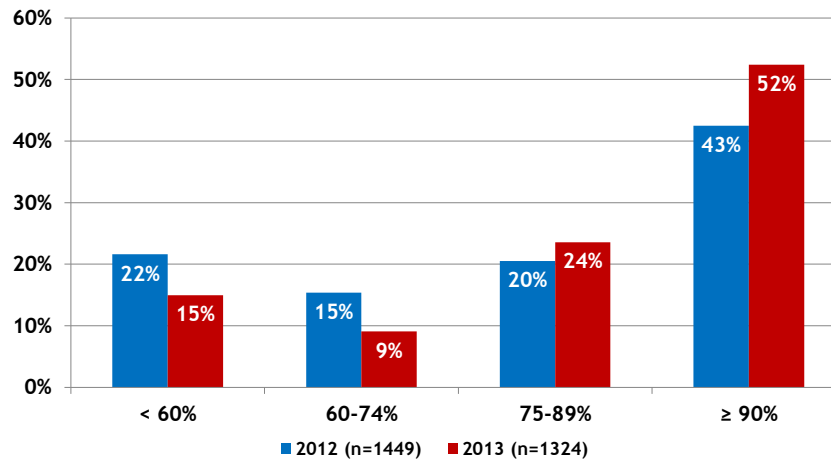


Table 1 demonstrates that overall in 2013, 90% of health care facility staff received an influenza immunization. Among the types of facility staff, students/trainees were the most likely to have received an influenza immunization. When considering facility type, community clinics (95%), hospitals (95%), and nursing homes (94%) had the highest percentage of staff immunized (Table 2). Home Health Agencies had the lowest percentage of staff immunized (66%).

Table 1. Number and Percentage of Staff in Reporting Facilities Receiving Influenza Immunization, 2013

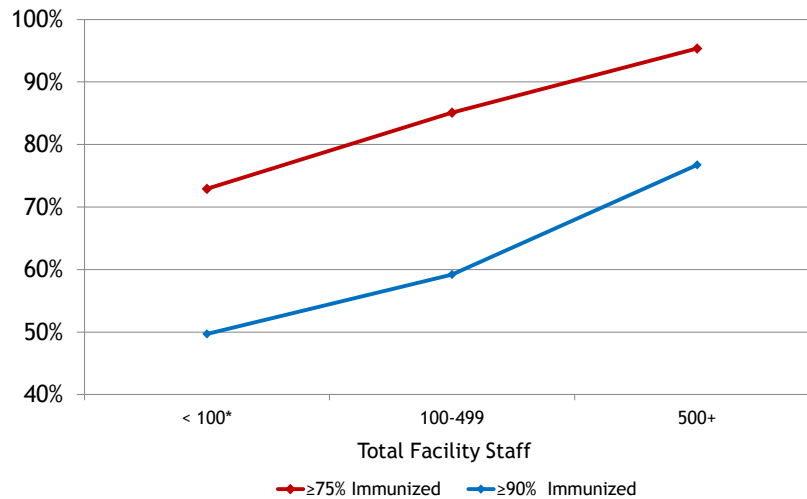
	Total	Number Vaccinated	Percent Immunized
Facility Employees	136,377	122,929	90%
Licensed Practitioners	29,814	26,449	89%
Students/Trainees	16,009	15,299	96%
<b>Total Staff of Reporting Facilities</b>	<b>182,700</b>	<b>164,677</b>	<b>90%</b>

Table 2. Number and Percentage of Total Staff Immunized by Type of Reporting Facility, 2013

Facility Type	Total Staff	Number Immunized	Percent Immunized
COMMUNITY CLINIC	719	682	95%
HOSPITAL	113969	107978	95%
NURSING HOME (NH)	22680	21233	94%
AMBULATORY SURGICAL CENTER	5881	5436	92%
END STAGE RENAL DISEASE FACILITIES	544	493	91%
HOSPICE	2134	1851	87%
CONVALESCENT CENTER	437	379	87%
ASSISTED LIVING RESIDENCE	9717	8182	84%
INTERMEDIATE CARE FACILITY FOR INTELLECTUALLY DISABLED	780	656	84%
COMM. MENTAL HEALTH CENTER	2833	2342	83%
RCF-DD	1339	1058	79%
HOME HEALTH AGENCY (HHA)	21667	14387	66%
<b>TOTAL Staff of Reporting Facilities</b>	<b>182,700</b>	<b>164,677</b>	<b>90%</b>

Figure 6 illustrates that as facility staff size increases the percentage of employees immunized against influenza increases.

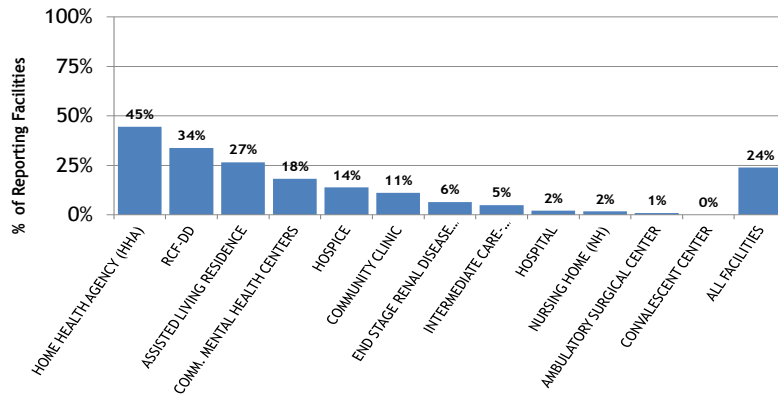
Figure 6. Influenza Immunization Rate by Small, Medium and Large Sized Health Care Facilities\*, 2013



\*17 Facilities with < 10 staff had no staff immunized

The BOH rule specifies that the 2013 health care worker influenza immunization threshold was 75%. All convalescent centers met the threshold. Home health agencies, RCF-DD, and assisted living residences had the highest percentage of facilities that did not meet the threshold. (Figure 7)

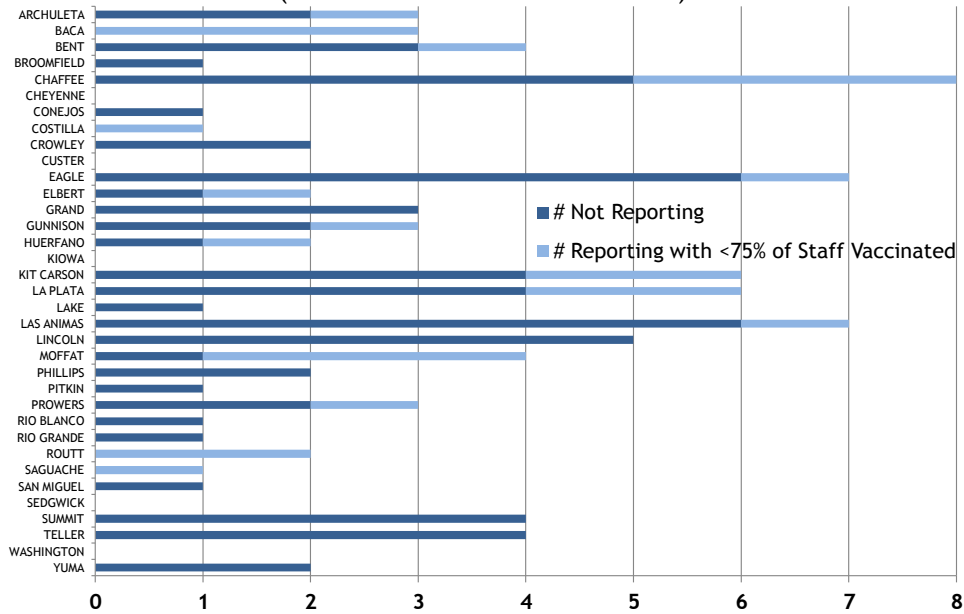
Figure 7. Type of Reporting Facility by Percentage Below the 75% Compliance Threshold, 2013



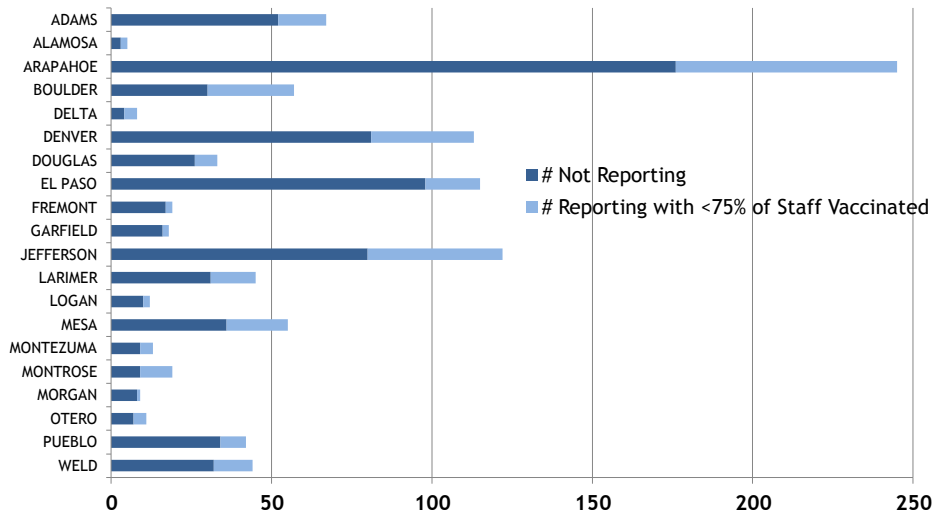


Figures 8 and 9 show the number of facilities, by county, that were not compliant with the rule. This could be due to non-reporting or due to failure to meet the 75% threshold. Figure 8 lists the counties with fewer than 15 facilities. Figure 9 lists the counties with more than 15 facilities.

**Figure 8. Number of Facilities Not Compliant with BOH Rule, Either by Non-reporting or Failure to Reach 75% Threshold, by County (Counties with < 15 Facilities)**



**Figure 9. Number of Facilities Not Compliant with BOH Rule, Either by Non-reporting or Failure to Reach 75% Threshold, by County (Counties with ≥ 15 Facilities)**



In Figures 10 and 11, the percentage of facilities, by county, that meet the 2103 threshold of  $\geq 75\%$  is shown. Figure 10 lists the counties with fewer than 15 facilities. Figure 11 lists the counties with 15 or more facilities.

Figure 10. Facilities Meeting the 2013 75% Compliance Threshold, by County (Counties with <15 facilities)

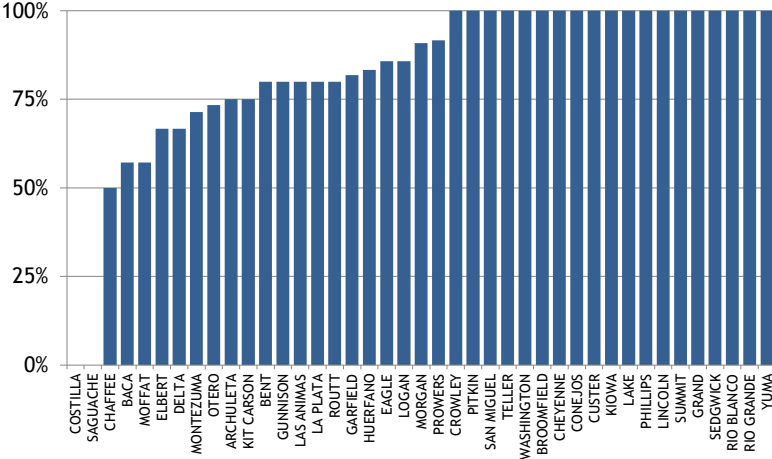
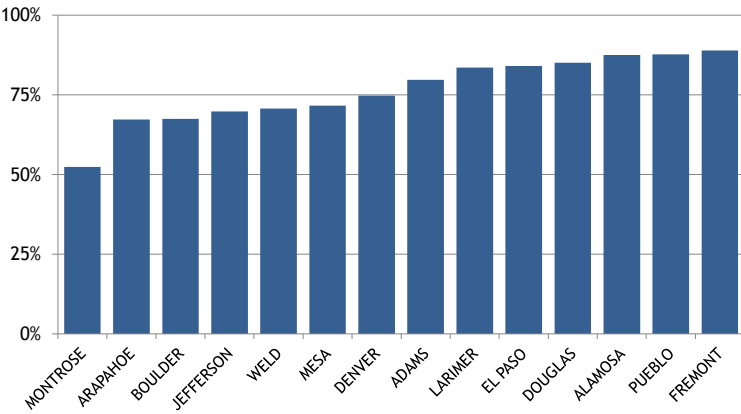


Figure 11. Facilities Meeting the 2013 75% Compliance Threshold, by County (Counties with  $\geq 15$  Facilities)



Figures 12 and 13 compare the percentage of facilities, by county, that meet the 2014 threshold of  $\geq 90\%$  immunizations during 2012 and 2013.

Figure 12. Percentage of Reporting Facilities by County with  $\geq 90\%$  Immunization, 2012

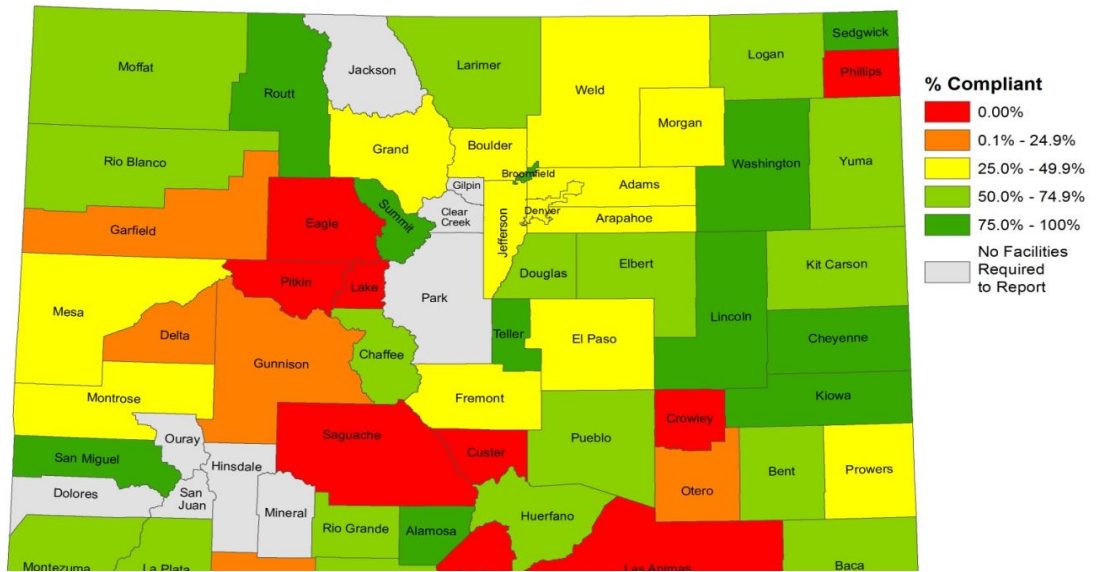
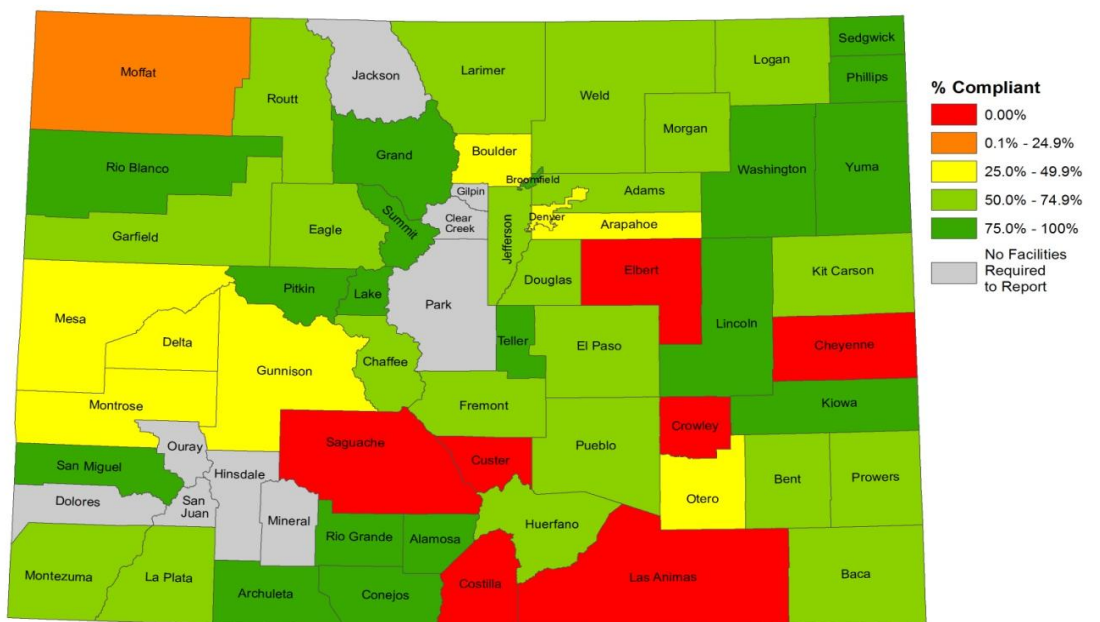


Figure 13. Percentage of Reporting Facilities by County with  $\geq 90\%$  Immunization, 2013



## Appendix A

Facilities Licensed by CDPHE
Acute Treatment Units
Ambulatory Surgical Centers
Ambulatory Surgical Centers - Medicare
Assisted Living Residence - ALR Only
Assisted Living Residence - ALR/ACF
Assisted Living Residence - ALR/RTF
Birthing Centers
Community Mental Health Centers
Community Mental Health Centers - Medicare
Community Clinics
Community Clinics/Emergency
Convalescent Center
End Stage Renal Disease
End Stage Renal Disease - Medicare
Home Health Agency - HCA License - In-Home Support Services
Home Health Agency - HCA License - Personal Care Homemaker
Home Health Agency - HCA License Only
Home Health Agency - HCA License Only - Cert. Eligible
Home Health Agency - HCA License Only - Cert. Not Eligible
Home Health Agency - Medicare/Medicaid
Hospice - Licensed
Hospice - Medicare
Hospital Unit - Hospital Unit
Hospital - Children
Hospital - Critical Access Hospital
Hospital - Licensed General
Hospital - Licensed Psych
Hospital - Long Term
Hospital - Psychiatric
Hospital - Rehabilitation
Hospital - Short Term
Intermediate Care Facility for Intellectually Disabled - Medicaid
Nursing Home - NF Only
Nursing Home - Private
Nursing Home - SNF Only
Nursing Home - SNF/NF Distinct Part
Nursing Home - SNF/NF Dual Certification
RCF-DD-Residential Treatment