



Influenza Vaccination Coverage for Health Care Workers in Colorado

2017-2018 Report



COLORADO
Department of Public
Health & Environment

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Introduction

Influenza is a serious and highly contagious respiratory illness. The elderly, pregnant women, young children, and people with chronic medical conditions are especially vulnerable. Based on national models developed by the Centers for Disease Control and Prevention (CDC), every year between 2,400 and 12,000 Coloradans are hospitalized for influenza, and between 200 and 950 die from complications related to influenza.¹ Because health care workers (HCW) regularly come into contact with these patients, a high level of influenza vaccination coverage among HCWs is essential for infection prevention and disease control.

Colorado Board of Health Rule 6 CCR 1011-1 Chapter 2, Part 10 pertains to influenza vaccination of employees in licensed health care facilities. The rule intends to promote patient safety by protecting vulnerable patients from influenza. The rule applies to all health care facilities licensed by the Colorado Department of Public Health and Environment (CDPHE) and has two requirements:

- Facilities must keep track of the number of employees who are vaccinated against influenza, and
- Annually report that number to CDPHE, either through the Health Facilities Division (HFD) Portal, or the National Healthcare Safety Network (NHSN). Because of differences in federal and state reporting requirements, facilities reporting through the HFD Portal are required to report by March 31 of each year, and facilities reporting through NHSN are required to report by May 15 of each year.

Facilities must ensure 90 percent of their health care workers have received an annual influenza vaccine. If this threshold is not met, facilities must implement a policy based on their classification. Facilities classified as general hospitals, hospital units, ambulatory surgical centers, and long-term care facilities must implement an influenza vaccination policy to ensure each of their HCWs has been vaccinated or has a documented medical exemption. Employees without proof of vaccination and those with medical exemptions to vaccination must wear surgical/procedure masks through the entire influenza season.

Facilities classified as assisted living residences, community clinics, community mental health centers, facilities for people with developmental disabilities, hospices, dialysis treatment centers, home care agencies, psychiatric hospitals, rehabilitation hospitals, convalescent centers, and acute treatment units must assess their workforce and residents/patients, instead of developing a policy regarding vaccination and masking of employees.

For general information about the Board of Health's Health Care Worker Influenza Vaccination Rule requirements, please contact the Immunization Branch at cdphe.dcdimmunization@state.co.us or (303) 692-2700.

¹¹ Centers for Disease Control and Prevention. Disease Burden of Influenza: <https://www.cdc.gov/flu/about/disease/burden.htm>

2017-2018 Reporting Results

The proportion of facilities submitting data has decreased over the last three years from 70 percent to 60 percent (Table 1). When facilities that opened after December 2017 were removed from the analysis, the proportion submitting data during the 2017-18 influenza season is 61 percent. The proportion of reporting facilities achieving the 90 percent threshold has increased to 65 percent from 64 percent over the last three years.

Table 1: Number of licensed facilities, number and percent of facilities that reported, and number and percent of reporting facilities by source and by vaccination compliance

	2015-2016	2016-2017	2017-2018
Total licensed facilities	2,333	2,464	2,633
Total reporting facilities	1,629 (70%)	1,711 (69%)	1,580 (60%)
Through HFD portal	1,395 (86%)	1,475 (86%)	1,348 (85%)
Through NHSN portal	234 (14%)	236 (14%)	232 (15%)
Achieved >= 90% vaccinated	1,041 (64%)	1,087 (64%)	1,021 (65%)
Achieved 100% vaccinated	437 (27%)	453 (26%)	388 (25%)

At reporting health care facilities, 92 percent of the total staff received an influenza vaccination during the 2017-18 flu season (Table 2). Hospitals had the highest proportion of staff vaccinated (97 percent), followed by community clinics and nursing homes, each with 96 percent vaccinated. Residential care centers for the developmentally disabled and home health care agencies had the lowest proportions of staff immunized (71 percent and 64 percent, respectively). Note that staff may be counted in more than one facility. “Other facilities” includes birth centers (n = 4), acute treatment units (n = 3), rural health clinics (n = 2), comprehensive outpatient rehabilitation centers (n = 1), convalescent centers (n = 1), and outpatient physical therapy and speech pathology facilities (n = 1).

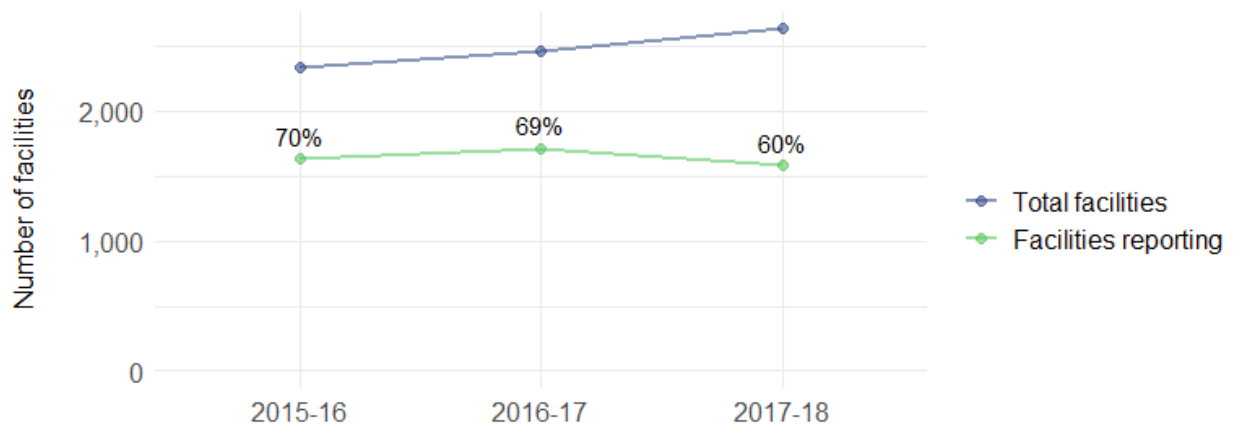
Table 2: Facility reporting and immunization compliance by facility type

Facility type	Total number of facilities	Number (%) of facilities that reported	Number (%) of facilities achieving 90% compliance	Total staff in reporting facilities	Number (%) of staff immunized in reporting facilities
ASC*	118	107 (91%)	94 (88%)	8,925	8,510 (95%)
Assisted living residence	668	380 (57%)	270 (71%)	13,585	12,178 (90%)
Community clinic	71	46 (65%)	41 (89%)	1,373	1,323 (96%)
Dialysis center	88	67 (76%)	57 (85%)	2,358	2,245 (95%)
Home health care	963	471 (49%)	174 (37%)	33,552	21,411 (64%)
Hospice	97	54 (56%)	35 (65%)	2,802	2,582 (92%)
Hospital	187	111 (59%)	105 (95%)	142,519	138,599 (97%)
Intermediate care for ID*	21	21 (100%)	15 (71%)	3,627	3,372 (93%)
Mental health center	22	14 (64%)	9 (64%)	3,999	3,653 (91%)
Nursing home	234	187 (80%)	172 (92%)	28,724	27,606 (96%)
Residential care for DD*	138	110 (80%)	42 (38%)	1,886	1,343 (71%)
Other facilities	26	12 (46%)	11 (92%)	314	302 (96%)
Total	2,633	1,580 (60%)	1,025 (65%)	243,664	223,124 (92%)

*Note: ASC = ambulatory surgery center; ID = intellectually delayed; DD = developmentally delayed.

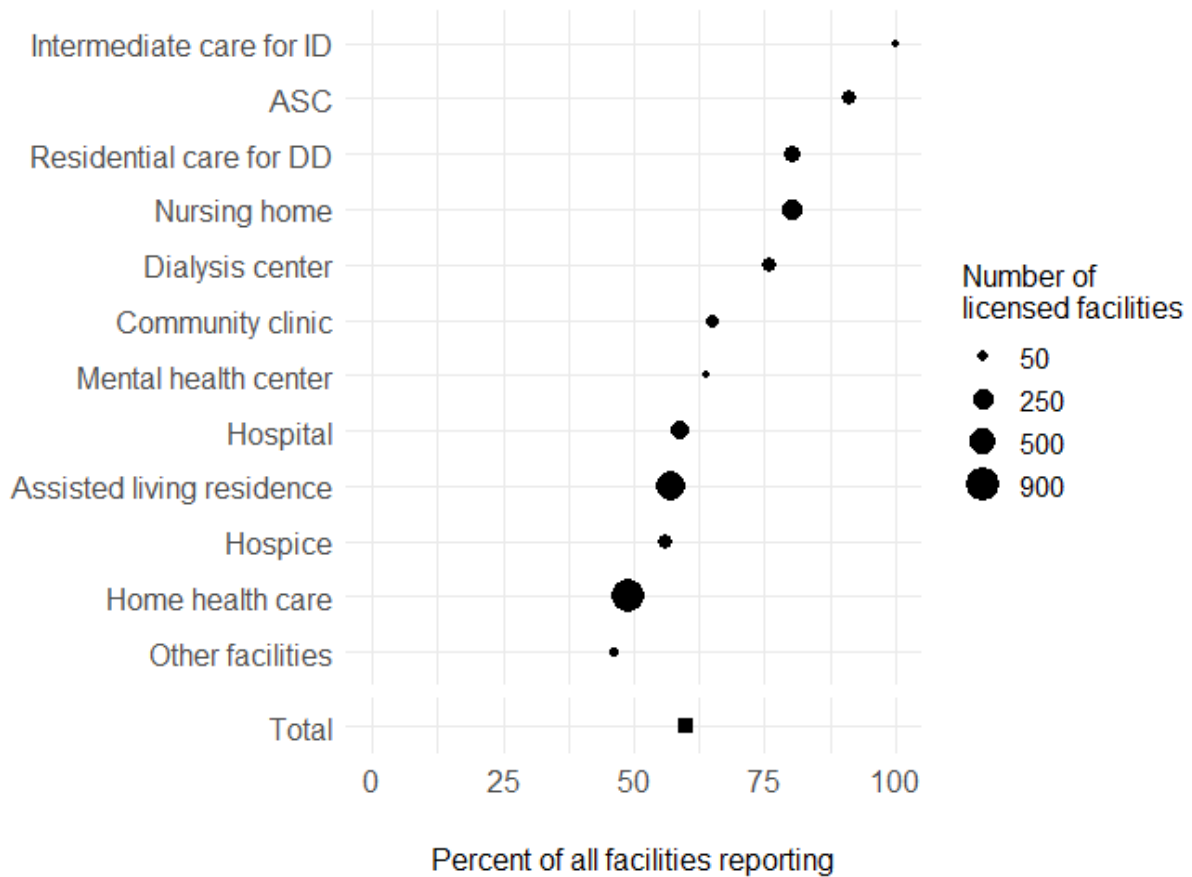
In 2017-2018, 60 percent of facilities submitted the required immunization data compared to 69 percent in 2016-17, and 70 percent in 2015-16. The number of licensed health care facilities required to report has grown over the last three years to 2,633 in 2017-18 (compared to 2,464 in 2016-17 and 2,333 in 2015-16); however, the proportion of facilities that submitted reports decreased in 2017-18 compared to the previous two seasons (Figure 1).

Figure 1: Number of licensed facilities, and number and percent of licensed facilities that submitted reports by flu season



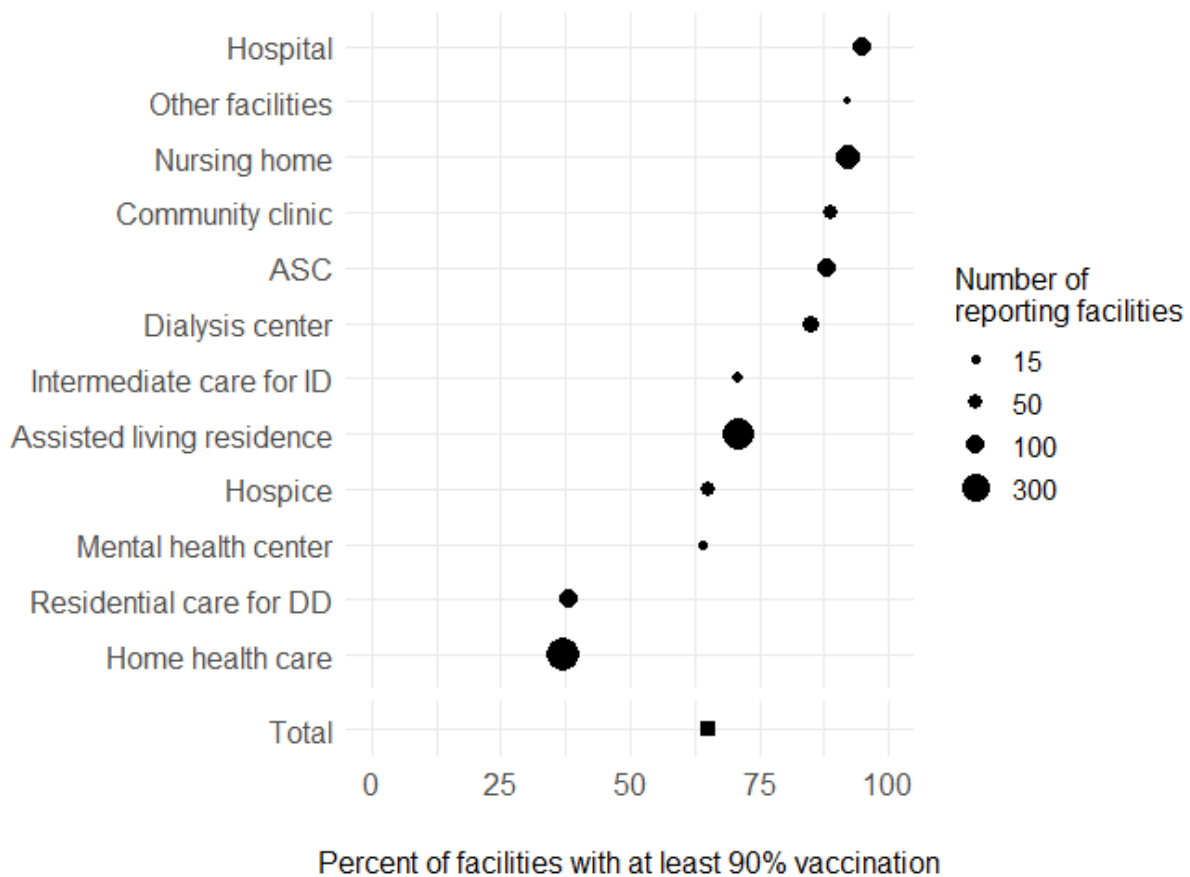
In 2017-2018, reporting compliance by facility type ranged from 100 percent (intermediate care facilities for the intellectually delayed) to 46 percent (other facilities) (Figure 2). The size of points in Figure 2 corresponds to the number of licensed facilities in each type. The number of facilities in each type ranged from 963 (home health care facilities) to 21 (intermediate care facilities for the intellectually delayed).

Figure 2: Percent of reporting facilities out of total licensed facilities by facility type and flu season



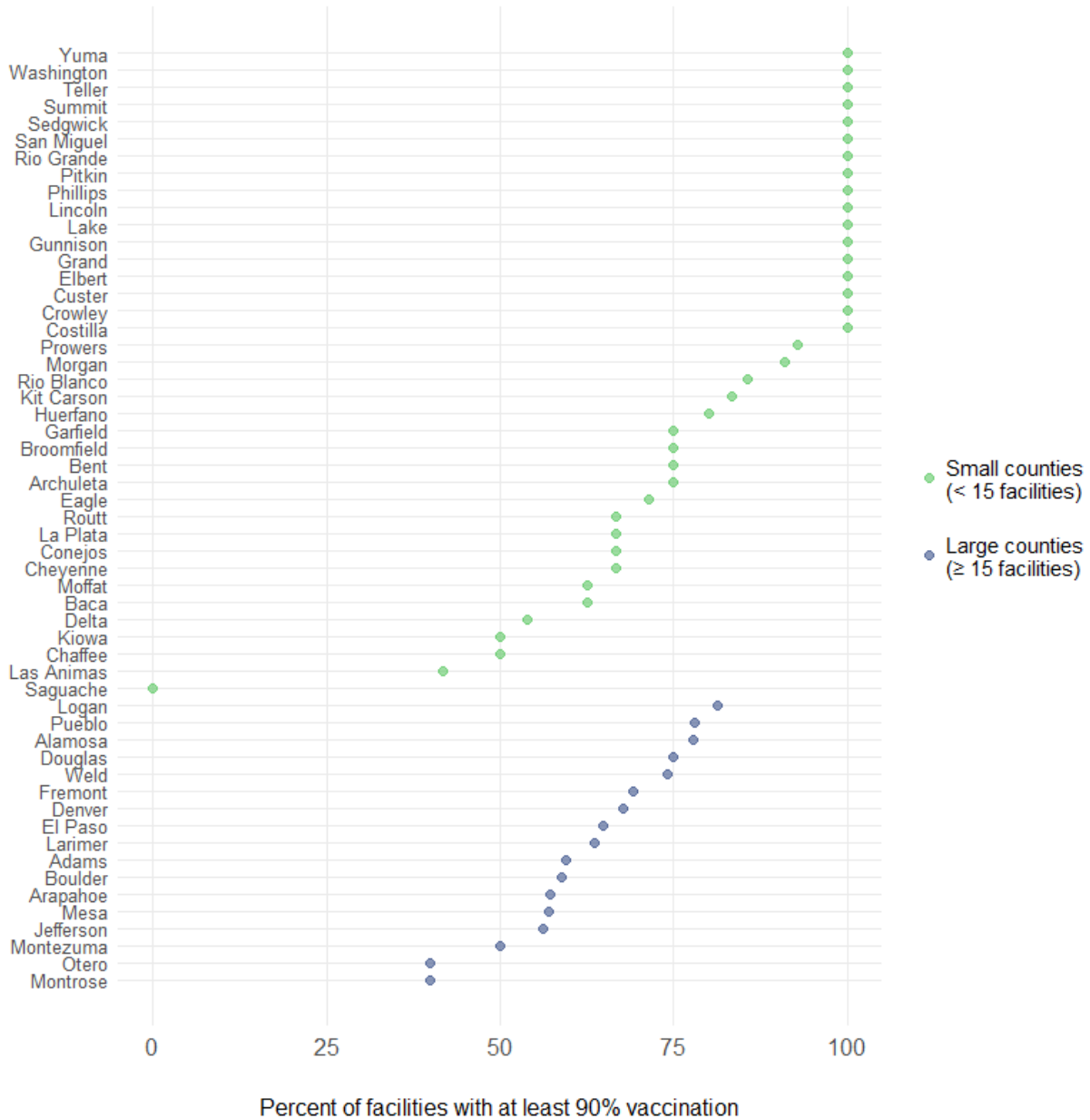
Out of 1,580 reporting facilities in Colorado, 65 percent achieved the 90 percent vaccination compliance threshold (Figure 3). Home health care facilities and residential care facilities for the developmentally disabled had the lowest proportions of facilities achieving the threshold (37 percent and 38 percent, respectively). The size of points in Figure 3 corresponds to the number of facilities that reported in each type. The number of reporting facilities ranged from 471 (home health care facilities) to 12 from other facilities, which includes birth centers (n = 4), acute treatment units (n = 3), rural health clinics (n = 2), comprehensive outpatient rehabilitation centers (n = 1), convalescent centers (n = 1), and outpatient physical therapy and speech pathology facilities (n = 1).

Figure 3: Percent of reporting facilities with at least 90% of staff vaccinated by facility type



All of the counties with 100 percent of facilities reaching the 90 percent vaccination threshold were small (having less than 15 facilities) (Figure 4). There were similar distributions of percent of facilities reaching the threshold between large (having 15 or more facilities) and small counties; however, counties with higher percentages of facilities reaching the threshold tended to be smaller.

Figure 4: Percent of reporting facilities with at least 90% of staff vaccinated by county



Most Western Slope and Front Range counties tended to have 50 to 75 percent of facilities reach the 90 percent threshold (Figure 5). Counties with 25 to 50 percent of facilities reaching the 90 percent threshold tended to be in the western and southern regions. There was one county with no facilities reaching the 90 percent threshold. Counties with all facilities reaching the threshold were distributed somewhat uniformly throughout the state, but were most concentrated in eastern Colorado. Counties with no licensed facilities were not required to report flu vaccination status. There were no counties that fell in the 0 to 25 percent range.

Figure 5: Map of the percent of reporting facilities with at least 90% of staff vaccinated by county

