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National Latino AIDS Awareness Day — October 15, 2017

National Latino AIDS Awareness Day is observed each year on October 15 to focus attention on the continuing disproportionate impact of human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) on the Hispanic or Latino population in the United States. As of July 2015, the population of Hispanics or Latinos was estimated at 56.6 million, or approximately 18% of the U.S. population (*1*). However, in 2015, Hispanics or Latinos accounted for 24% of all new HIV diagnoses (*2*).

At the end of 2014, an estimated 235,600 Hispanics or Latinos were living with HIV infection in the United States. In 38 jurisdictions with complete reporting of CD4 and viral load data, 75.4% were linked to care within 1 month of diagnosis, 70.2% received HIV medical care, and 58.2% were virally suppressed (*3*).

National Latino AIDS Awareness Day is an opportunity to encourage increased HIV prevention activities, such as HIV testing, for Hispanics or Latinos. CDC supports testing, linkage to, and engagement in care and treatment, and a range of other efforts to reduce the risk for acquiring or transmitting HIV infection among Hispanics or Latinos. Additional information is available at https://www.cdc.gov/Features/LatinoAIDSAwareness.

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HIV Care Outcomes Among Hispanics or Latinos with Diagnosed HIV Infection — United States, 2015

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Data from CDC's National HIV Surveillance System (NHSS)* are used to monitor progress toward achieving national goals set forth in the Division of HIV/AIDS Prevention's Strategic Plan (*1*) and other federal directives† for human immunodeficiency virus (HIV) testing, care, and treatment outcomes and HIV-related disparities in the United States. Recent data indicate that Hispanics or Latinos§ are disproportionately affected by HIV infection. Hispanics or Latinos living with diagnosed HIV infection have lower levels of care and viral suppression than do non-Hispanic whites but higher levels than those reported among blacks or

* NHSS is the primary source for monitoring HIV trends in the United States. The system collects, analyzes, and disseminates information about new and existing cases of HIV infection.
† The national goals to be achieved by 2020 are 1) 85% of all persons with newly diagnosed HIV infection to be linked to care, 2) 90% of persons living with diagnosed HIV infection to be retained in care, and 3) 80% of persons living with diagnosed HIV infection to have a suppressed viral load.
§ Hispanics or Latinos might be of any race.

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African Americans (*2*). The annual rate of diagnosis of HIV infection among Hispanics or Latinos is three times that of non-Hispanic whites (*3*), and a recent study found increases in incidence of HIV infection among Hispanic or Latino men who have sex with men (*4*). Among persons with HIV infection diagnosed through 2013 who were alive at year-end 2014, 70.2% of Hispanics or Latinos received any HIV medical care compared with 76.1% of non-Hispanic whites (*2*). CDC used NHSS data to describe HIV care outcomes among Hispanics or Latinos. Among male Hispanics or Latinos with HIV infection diagnosed in 2015, fewer males with infection attributed to heterosexual contact (34.6%) had their infection diagnosed at an early stage (stage 1 = 12.0%, stage 2 = 22.6%) than males with infection attributed to male-to-male sexual contact (60.9%: stage 1 = 25.2%, stage 2 = 35.7%). The percentage of Hispanics or Latinos linked to care after diagnosis of HIV infection increased with increasing age; females aged 45–54 years with infection attributed to injection drug use (IDU) accounted for the lowest percentage (61.4%) of persons linked to care. Among Hispanics or Latinos living with HIV infection, care and viral suppression were lower among selected age groups of Hispanic or Latino males with HIV infection attributed to IDU than among males with infection attributed to male-to-male sexual contact and male-to-male sexual contact and IDU. Intensified efforts to develop and implement effective interventions and public health strategies that increase engagement in care and viral suppression among Hispanics or Latinos (*3*,*5*), particularly those who inject drugs, are needed to achieve national HIV prevention goals.

All states, the District of Columbia, and U.S. territories report cases of HIV infection and associated demographic and clinical information to NHSS. CDC analyzed data for persons aged ≥13 years reported through December 2016 from 38 jurisdictions[¶] with complete laboratory reporting.[**] These jurisdictions accounted for 75.2% of Hispanics or Latinos aged ≥13 years living with diagnosed HIV infection at year-end 2014 in the United States. Stage of disease at diagnosis and linkage to care were assessed among Hispanics or Latinos living in any of the 38 jurisdictions at the time of diagnosis of HIV infection in 2015. For persons who received a diagnosis of HIV infection during 2015, linkage to HIV care within 1 month

[¶] The 38 jurisdictions were Alabama, Alaska, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

[**] The criteria for complete reporting were as follows: 1) the jurisdiction's laws or regulations required reporting of all CD4 and viral load test results to the state or local health department, 2) ≥95% of all laboratory test results were reported by laboratories that conduct HIV-related testing for each jurisdiction, and 3) the jurisdiction reported to CDC ≥95% of CD4 and viral load results received since at least January 2014.

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of diagnosis was measured by documentation of one or more CD4 (cell count or percentage) or viral load tests performed ≤1 month after diagnosis of HIV infection, including tests performed on the date of diagnosis. Receipt of any HIV care, defined as having one or more CD4 or viral load tests during 2014, retention in care, defined as having two or more CD4 or viral load tests ≥3 months apart, and viral suppression, defined as a viral load of <200 HIV RNA copies/mL at most recent test (*6*) were assessed among Hispanics or Latinos with HIV infection diagnosed by December 31, 2013, and who were alive and resided (based on the most recent known address) in any of the 38 jurisdictions as of December 31, 2014 (i.e., persons living with diagnosed HIV infection). Data were statistically adjusted by using multiple imputation techniques to account for missing HIV transmission categories (*3*).

In the 38 jurisdictions, 6,707 Hispanics or Latinos received a diagnosis of HIV infection in 2015 (Table 1). Among these persons, 24.5% had infection classified as stage 1 at diagnosis, 33.6% as stage 2, and 23.1% as stage 3 (acquired immunodeficiency syndrome [AIDS]); for 18.8% the stage was unknown (*6*). Among both males and females, the highest percentage of infections were diagnosed at an earlier stage (stage 1 [24.5%] or stage 2 [33.6%]). By age group, the highest percentage of Hispanics or Latinos whose infection was diagnosed at stage 1 or stage 2 was reported in persons aged 13–24 years (stage 1, 30.8%; stage 2, 41.1%), followed by persons aged 25–34 years (stage 1, 24.3%; stage 2, 36.8%). In general, the percentages of early diagnosis decreased as age increased; among persons aged ≥55 years, 40.1% of infections were diagnosed at stage 3 (Table 1). By transmission category, the highest percentages of Hispanics or Latinos with infection diagnosed at an earlier stage of HIV disease were among females with infection attributed to heterosexual contact (stage 1, 27.2%; stage 2, 29.2%). Males with infection attributed to heterosexual contact accounted for the lowest percentages of early diagnoses (stage 1, 12.0%; stage 2, 22.6%).

Overall, 5,059 (75.4%) of the 6,707 Hispanics or Latinos with HIV infection diagnosed during 2015 were linked to care within 1 month of diagnosis; the percentage of persons linked to care increased with increasing age (Table 2). By transmission category and age group, males aged ≥55 years with infection attributed to heterosexual contact accounted for the highest

TABLE 1. Number of diagnoses of HIV infection among Hispanics or Latinos aged ≥13 years, by stage of disease* — National HIV Surveillance System, 38 jurisdictions,† United States, 2015

Characteristic	Total	Stage 1 (CD4 ≥500 cells/μL or ≥26%) No. (%)	Stage 2 (CD4 200–499 cells/μL or 14%–25%) No. (%)	Stage 3 (AIDS) (CD4 <200 cells/μL or <14%) No. (%)	Stage unknown (no CD4 information) No. (%)
Sex					
Male	**5,925**	1,437 (24.3)	2,027 (34.2)	1,351 (22.8)	1,110 (18.7)
Female	**782**	208 (26.6)	225 (28.8)	196 (25.1)	153 (19.6)
Age group at diagnosis (yrs)					
13–24	**1,509**	465 (30.8)	620 (41.1)	133 (8.8)	291 (19.3)
25–34	**2,397**	583 (24.3)	883 (36.8)	453 (18.9)	478 (19.9)
35–44	**1,482**	320 (21.6)	419 (28.3)	484 (32.7)	259 (17.5)
45–54	**918**	199 (21.7)	235 (25.6)	316 (34.4)	168 (18.3)
≥55	**401**	78 (19.5)	95 (23.7)	161 (40.1)	67 (16.7)
Transmission category§					
Male-to-male sexual contact	**5,124**	1,289 (25.2)	1,831 (35.7)	1,033 (20.2)	971 (18.9)
Injection drug use					
Male	**237**	49 (20.8)	57 (24.1)	78 (33.0)	53 (22.1)
Female	**96**	21 (22.3)	25 (25.9)	25 (26.5)	24 (25.3)
Male-to-male sexual contact and injection drug use	**212**	55 (26.1)	61 (28.7)	54 (25.4)	42 (19.8)
Heterosexual contact¶					
Male	**345**	42 (12.0)	78 (22.6)	181 (52.5)	44 (12.8)
Female	**684**	186 (27.2)	200 (29.2)	171 (24.9)	128 (18.7)
Total**	**6,707**	**1,645 (24.5)**	**2,252 (33.6)**	**1,547 (23.1)**	**1,263 (18.8)**

Abbreviations: AIDS = acquired immunodeficiency syndrome; HIV = human immunodeficiency virus.

* Stage of disease at diagnosis of HIV infection based on first CD4 test performed or documentation of an AIDS-defining condition ≤3 months after a diagnosis of HIV infection. Selik RM, Mokotoff ED, Branson B, Owen SM, Whitmore S, Hall HI. Revised surveillance case definition for HIV infection—United States, 2014. MMWR Recomm Rep 2014;63(No. RR-03).

† The 38 jurisdictions were Alabama, Alaska, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

§ Data statistically adjusted using multiple imputation techniques to account for missing transmission categories.

¶ Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

** Includes persons with diagnosed infection attributed to hemophilia, blood transfusion, perinatal exposure, and risk factors not reported or not identified.

TABLE 2. Number of persons linked to HIV medical care within 1 month after diagnosis of HIV infection among Hispanics or Latinos aged ≥13 years, by age group and selected characteristics — National HIV Surveillance System, 38 jurisdictions,* United States, 2015

Characteristic	13–24 yrs		25–34 yrs		35–44 yrs		45–54 yrs		≥55 yrs		Total	
	No. HIV diagnoses	No. linked† (%)	No. HIV diagnoses	No. linked† (%)	No. HIV diagnoses	No. linked† (%)	No. HIV diagnoses	No. linked† (%)	No. HIV diagnoses	No. linked† (%)	No. HIV diagnoses	No. linked† (%)
Sex												
Male	1,375	1,000 (72.7)	2,197	1,639 (74.6)	1,289	995 (77.2)	760	594 (78.2)	304	241 (79.3)	**5,925**	**4,469 (75.4)**
Female	134	100 (74.6)	200	142 (71.0)	193	147 (76.2)	158	121 (76.6)	97	80 (82.5)	**782**	**590 (75.4)**
Transmission category§												
Male-to-male sexual contact	1,279	930 (72.7)	1,971	1,465 (74.4)	1,068	826 (77.4)	615	476 (77.4)	192	148 (77.3)	**5,124**	**3,845 (75.0)**
Injection drug use												
Male	23	16 (69.2)	59	43 (72.1)	62	42 (67.8)	52	39 (75.3)	42	31 (73.5)	**237**	**170 (71.6)**
Female	16	11 (69.9)	22	14 (63.8)	23	17(76.1)	23	14 (61.4)	12	9 (81.2)	**96**	**67 (69.3)**
Male-to-male sexual contact and injection drug use	51	37 (73.2)	85	61 (70.8)	47	35(74.7)	23	19 (82.7)	6	6 (100)	**212**	**157 (74.2)**
Heterosexual contact¶												
Male	22	16 (75.2)	80	69 (86.1)	111	90 (81.6)	71	60 (85.3)	62	54 (88.0)	**345**	**290 (84.1)**
Female	117	88 (75.2)	178	128 (72.0)	170	130 (76.2)	135	107 (79.2)	85	70 (82.6)	**684**	**522 (76.3)**
Other**												
Male	1	1 (100)	2	2 (100)	2	2 (100)	1	1 (100)	2	2 (100)	**7**	**7 (100)**
Female	1	1 (100)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	0	0 (0.0)	**1**	**1 (100)**
Total	**1,509**	**1,100 (72.9)**	**2,397**	**1,781 (74.3)**	**1,482**	**1,142 (77.1)**	**918**	**715 (77.9)**	**401**	**321 (80)**	**6,707**	**5,059 (75.4)**

Abbreviation: HIV = human immunodeficiency virus.

* The 38 jurisdictions were Alabama, Alaska, California, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

† One or more CD4 or viral load tests performed within 1 month after HIV diagnosis during 2015.

§ Data statistically adjusted using multiple imputation techniques to account for missing transmission categories.

¶ Heterosexual contact with a person known to have, or to be at high risk for, HIV infection.

** Includes persons with diagnosed infection attributed to hemophilia, blood transfusion, perinatal exposure, and risk factors not reported or not identified.

percentage of persons linked to care (88.0%), whereas females aged 45–54 years with infection attributed to IDU accounted for the lowest percentage (61.4%).

Among 141,929 Hispanics or Latinos aged ≥13 years living with diagnosed HIV infection in 38 jurisdictions in 2015, 70.2% received care, and 58.3% were retained in care (Table 3), with males having lower receipt of care (69.0%) and retention in care (57.1%) than females (74.6% and 63.0%, respectively). By transmission category and age group, males aged 25–34 years with infection attributed to IDU accounted for the lowest percentages of persons who received (55.7%) and were retained (44.8%) in care. At the most recent test, 58.2% of Hispanics or Latinos had suppressed viral load (Table 3); a higher percentage of females had suppressed viral load (59.7%) than did males (57.8%). Among all age groups, the lowest level of viral load suppression was among persons aged 13–24 years (54.6%); viral load suppression increased with increasing age. Males aged 25–34 years and 35–44 years with infection attributed to IDU had the lowest levels of viral suppression (38.9% and 43.1%, respectively).

Discussion

In 2015, among Hispanics or Latinos aged ≥13 years with diagnosed HIV infection in 38 jurisdictions with complete laboratory reporting, 58.1% of infections were diagnosed at an earlier stage (stage 1 or 2) and another 18.8% at an unknown stage; overall, 75.4% were linked to care within 1 month of diagnosis. Among all Hispanics or Latinos aged ≥13 years living with diagnosed HIV infection at year-end 2014 in these jurisdictions, 58.3% were retained in care, and 58.2% had suppressed viral load. By comparison, the national goals are 85% linkage to care, 90% retention in care, and 80% viral load suppression (*1*), and the percentages among non-Hispanic whites were 79.9%, 58.5%, and 65.0%, respectively (*3*). Improving health outcomes for Hispanics or Latinos living with HIV infection is necessary to reduce HIV transmission in the United States. Prompt linkage to care after diagnosis allows early initiation of HIV treatment, which is associated with reduced morbidity, mortality, and transmission of HIV infection (*7*).

TABLE 3. Receipt of HIV medical care and viral suppression among Hispanics or Latinos aged ≥13 years with HIV infection diagnosed by December 31, 2013,* who were alive on December 31, 2014, by age group and selected characteristics — National HIV Surveillance System, 38 jurisdictions,† United States, 2015

Characteristic	Total no.	Receipt of HIV care in 2014: Any care§ No. (%)	Receipt of HIV care in 2014: Retained in care¶ No. (%)	Viral suppression** No. (%)
		Age ≥13 yrs††		
Sex				
Male	113,284	78,214 (69.0)	64,661 (57.1)	65,532 (57.8)
Female	28,645	21,375 (74.6)	18,048 (63.0)	17,108 (59.7)
Transmission category§§				
Male-to-male sexual contact	79,146	56,407 (71.3)	46,256 (58.4)	48,027 (60.7)
Injection drug use				
Male	15,733	9,026 (57.4)	7,770 (49.4)	7,318 (46.5)
Female	7,244	5,269 (72.7)	4,510 (62.3)	4,064 (56.1)
Male-to-male sexual contact and injection drug use	8,086	5,982 (74.0)	4,981 (61.6)	4,636 (57.3)
Heterosexual contact¶¶				
Male	9,143	5,967 (65.3)	4,983 (54.5)	4,974 (54.4)
Female	20,303	15,259 (75.2)	12,831 (63.2)	12,495 (61.5)
Other***	2,274	1,678 (77.1)	1,378 (60.6)	1,126 (49.5)
Total	**141,929**	**99,589 (70.2)**	**82,709 (58.3)**	**82,640 (58.2)**
		Age 13–24 yrs††		
Sex				
Male	4,493	3,466 (77.1)	2,689 (59.8)	2,530 (56.3)
Female	1,298	1,000 (77)	817 (62.9)	631 (48.6)
Transmission category§§				
Male-to-male sexual contact	3,558	2,767 (77.8)	2,116 (59.5)	2,081 (58.5)
Injection drug use				
Male	51	40 (77.1)	31 (61.1)	25 (48.8)
Female	64	45 (70.4)	37 (58.4)	30 (46.5)
Male-to-male sexual contact and injection drug use	162	123 (75.8)	96 (59.1)	71 (43.5)
Heterosexual contact¶¶				
Male	78	55 (70.9)	47 (60.4)	42 (53.8)
Female	514	388 (75.6)	310 (60.4)	257 (50.0)
Other***	1,365	1,048 (76.8)	869 (63.3)	656 (48.1)
Subtotal	**5,791**	**4,466 (77.1)**	**3,506 (60.5)**	**3,161 (54.6)**
		Age 25–34 yrs††		
Sex				
Male	19,983	14,229 (71.2)	11,138 (55.7)	11,191 (56.0)
Female	3,855	2,752 (71.4)	2,172 (56.3)	2,007 (52.1)
Transmission category§§				
Male-to-male sexual contact	16,715	12,054 (72.1)	9,416 (56.3)	9,637 (57.7)
Injection drug use				
Male	713	398 (55.7)	320 (44.8)	278 (38.9)
Female	538	388 (72.0)	295 (54.8)	251 (46.6)
Male-to-male sexual contact and injection drug use	1,201	917 (76.3)	735 (61.2)	626 (52.1)
Heterosexual contact¶¶				
Male	1,052	660 (62.7)	512 (48.7)	517 (49.1)
Female	3,077	2,179 (70.8)	1,723 (56.0)	1,631 (53.0)
Other***	542	386 (77.1)	309 (57.0)	259 (47.8)
Subtotal	**23,838**	**16,981 (71.2)**	**13,310 (55.8)**	**13,198 (55.4)**
		Age 35–44 yrs††		
Sex				
Male	29,744	20,299 (68)	16,476 (55.4)	16,921 (56.9)
Female	7,253	5,343 (74)	4,341 (59.9)	4,131 (57.0)
Transmission category§§				
Male-to-male sexual contact	22,581	15,780 (70)	12,846 (56.9)	13,419 (59.4)

See table footnotes on the next page.

TABLE 3. (*Continued*) Receipt of HIV medical care and viral suppression among Hispanics or Latinos aged ≥13 years with HIV infection diagnosed by December 31, 2013,* who were alive on December 31, 2014, by age group and selected characteristics — National HIV Surveillance System, 38 jurisdictions,† United States, 2015

Characteristic	Total no.	Receipt of HIV care in 2014: Any care§ No. (%)	Receipt of HIV care in 2014: Retained in care¶ No. (%)	Viral suppression** No. (%)
Injection drug use				
Male	2,468	1,399 (57)	1,131 (45.8)	1,063 (43.1)
Female	1,521	1,108 (73)	883 (58.1)	787 (51.7)
Male-to-male sexual contact and injection drug use	2,145	1,551 (72)	1,236 (57.7)	1,185 (55.2)
Heterosexual contact¶¶				
Male	2,482	1,518 (61)	1,225 (49.4)	1,212 (48.8)
Female	5,714	4,222 (74)	3,446 (60.3)	3,333 (58.3)
Other***	86	65 (77.8)	50 (58.1)	53 (61.6)
Subtotal	**36,997**	**25,642 (69.3)**	**20,817 (56.3)**	**21,052 (56.9)**
		Age 45–54 yrs††		
Sex				
Male	37,491	26,015 (69.4)	21,894 (58.4)	22,281 (59.4)
Female	9,436	7,192 (76.2)	6,201 (65.7)	5,882 (62.3)
Transmission category§§				
Male-to-male sexual contact	24,927	17,898 (71.8)	15,008 (60.2)	15,703 (63.0)
Injection drug use				
Male	6,253	3,696 (59.1)	3,165 (50.6)	2,959 (47.3)
Female	3,008	2,237 (74.4)	1,961 (65.2)	1,740 (57.9)
Male-to-male sexual contact and injection drug use	3,094	2,294 (74.2)	1,947 (62.9)	1,834 (59.3)
Heterosexual contact¶¶				
Male	3,146	2,080 (66.1)	1,737 (55.2)	1,741 (55.4)
Female	6,384	4,924 (77.1)	4,213 (66.0)	4,115 (64.5)
Other***	115	78 (70.5)	63 (54.8)	68 (59.1)
Subtotal	**46,927**	**33,207 (70.8)**	**28,095 (59.9)**	**28,163 (60.0)**
		Age ≥55 yrs††		
Sex				
Male	21,573	14,205 (65.8)	12,464 (57.8)	12,609 (58.4)
Female	6,803	5,088 (74.8)	4,517 (66.4)	4,457 (65.5)
Transmission category§§				
Male-to-male sexual contact	11,364	7,908 (69.6)	6,870 (60.5)	7,186 (63.2)
Injection drug use				
Male	6,248	3,495 (55.9)	3,123 (50.0)	2,993 (47.9)
Female	2,113	1,492 (70.6)	1,334 (63.1)	1,256 (59.4)
Male-to-male sexual contact and injection drug use	1,485	1,098 (73.9)	967 (65.1)	921 (62.0)
Heterosexual contact¶¶				
Male	2,385	1,653 (69.3)	1,461 (61.3)	1,462 (61.3)
Female	4,615	3,546 (76.8)	3,139 (68.0)	3,159 (68.4)
Other***	166	102 (68.0)	88 (53.0)	90 (54.2)
Subtotal	**28,376**	**19,293 (68.0)**	**16,981 (59.8)**	**17,066 (60.1)**

Abbreviation: HIV = human immunodeficiency virus.

* Data are based on address of residence as of December 31, 2014 (i.e., most recent known address). Hispanics or Latinos might be of any race.

† The 38 jurisdictions were Alabama, Alaska, California, Colorado, Connecticut, Delaware, the District of Columbia, Georgia, Hawaii, Illinois, Indiana, Iowa, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New Mexico, New York, North Dakota, Oregon, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.

§ Defined as having at least one CD4 or VL test performed during 2014, among persons diagnosed through December 31, 2013, and alive on December 31, 2014.

¶ Defined as having two or more CD4 or VL tests performed ≥3 months apart during 2014, among persons diagnosed through December 31, 2013, and alive on December 31, 2014.

** Defined as having a VL result of ≤200 copies/mL at the most recent VL test during 2014. The cut-off value of ≤200 copies/mL was based on the U.S. Department of Health and Human Services recommended definition of virologic failure. https://aidsinfo.nih.gov/guidelines/html/1/adult-and-adolescent-arv-guidelines/15/virologic-failure.

†† Age at year-end 2014.

§§ Data statistically adjusted using multiple imputation techniques to account for missing transmission categories.

¶¶ Heterosexual contact with a person known to have or to be at high risk for HIV infection.

*** Includes persons with diagnosed infection attributed to hemophilia, blood transfusion, perinatal exposure, and risk factor not reported or not identified.

Summary

What is already known about this topic?

Hispanics or Latinos living with diagnosed human immunodeficiency virus (HIV) infection have lower levels of care and viral suppression than do non-Hispanic whites but higher levels than those reported among blacks or African Americans. National goals include 85% linkage to care, 90% retention in care, and 80% viral load suppression by 2020.

What is added by this report?

In 2015, 58.1% of HIV infections among Hispanics or Latinos aged ≥13 years with diagnosed HIV infection in 38 jurisdictions with complete laboratory reporting were diagnosed at an earlier stage (stage 1 or 2) and another 18.8% at an unknown stage; 75.4% were linked to care within 1 month of diagnosis. Among Hispanics or Latinos living with diagnosed HIV infection at year-end 2014, 70.2% received care, 58.3% were retained in care, and 58.2% were virally suppressed. The lowest levels of care and viral suppression were among males with infection attributed to injection drug use, and the highest levels of care and viral suppression were among heterosexual females. Hispanics or Latinos in the four age groups ≥25 years had similar percentages of retention and viral suppression. Those aged 13–24 years had the highest retention in care among all age groups (60.5%), but had the lowest overall viral suppression (54.6%).

What are the implications for public health practice?

Increasing the proportion of Hispanics or Latinos living with HIV infection who are receiving care and treatment will help to achieve the national goals to reduce new infections, improve health outcomes, and decrease health disparities. Among Hispanics or Latinos, targeted strategies for different groups, such as persons who inject drugs, might be needed to achieve improvements in linkage, care, and viral suppression.

Consistent with findings from a previous report on the continuum of HIV care among Hispanics or Latinos with diagnosed HIV infection based on data from 19 jurisdictions, linkage to care was similar for both males and females, retention in care followed a similar pattern across age groups, and males had lower levels of viral suppression than did females (*8*). The lowest levels of care and viral suppression among Hispanics or Latinos with HIV infection in these 38 jurisdictions were among males with infection attributed to IDU, and the highest levels of care and viral suppression were among heterosexual females. Hispanics or Latinos in the four age groups ≥25 years had similar percentages of retention in care and viral suppression. Those aged 13–24 years had the highest retention in care among all age groups (60.5%) and the lowest viral suppression (54.6%); the reasons for this are not known. Hispanics or Latinos with HIV infection might not seek, receive, or adhere to HIV care or treatment regimens for various reasons, including lack of health insurance, language barriers, and migration patterns (*9*). HIV programs that focus on care and treatment for Hispanics or Latinos might consider strengthening efforts to link to and retain in care persons with HIV infection and to promote adherence to medication to achieve optimal health outcomes.

The findings in this report are subject to at least two limitations. First, analyses were limited to 38 jurisdictions with complete laboratory reporting of all levels of CD4 and viral load test results; these 38 jurisdictions might not be representative of all Hispanics or Latinos living with diagnosed HIV infection in the United States. Second, comparisons of numbers and percentages by sex, transmission category, and age group should be interpreted with caution because groups vary in size and some have small, unstable numbers. Reported numbers smaller than 12 and their accompanying percentages also should be interpreted with caution.

Increasing the proportion of Hispanics or Latinos living with HIV infection who receive optimal HIV care will help achieve the national goal of reducing racial/ethnic disparities in HIV care outcomes. Through partnerships with federal, state, and local health agencies, CDC is pursuing a high-impact prevention approach to maximize the effectiveness of current HIV prevention and care methods (*10*). CDC supports projects focused on Hispanics or Latinos to optimize outcomes along the HIV care continuum, such as HIV testing (the first essential step for entry into the continuum of care) and projects that support linkage to, retention in, and return to care for all persons with HIV infection.†† Among Hispanics or Latinos, targeting strategies to groups that bear a disproportionate burden of HIV disease (e.g., persons who inject drugs) could lead to reductions in HIV infections and health inequities and help achieve the national goal of 80% of all persons living with HIV infection having a suppressed viral load.

†† https://www.cdc.gov/hiv/research/demonstration/capus/index.html.

Conflict of Interest

No conflicts of interest were reported.

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Vaccination Coverage for Selected Vaccines, Exemption Rates, and Provisional Enrollment Among Children in Kindergarten — United States, 2016–17 School Year

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State and local school vaccination requirements help protect students and communities against vaccine-preventable diseases (*1*). CDC reports vaccination coverage and exemption data for children attending kindergarten (kindergartners) collected by federally funded immunization programs in the United States.* The typical age range for kindergartners is 4–6 years. Although vaccination requirements vary by state (the District of Columbia [DC] is counted as a state in this report.), the Advisory Committee on Immunization Practices recommends that children in this age range have received, among other vaccinations, 5 doses of diphtheria, tetanus, and acellular pertussis vaccine (DTaP), 2 doses of measles, mumps, and rubella vaccine (MMR), and 2 doses of varicella vaccine (*2*). This report summarizes 2016–17 school year MMR, DTaP, and varicella vaccination coverage reported by immunization programs in 49 states, exemptions in 50 states, and kindergartners provisionally enrolled or within a grace period in 27 states. Median vaccination coverage† was 94.5% for the state-required number of doses of DTaP; 94.0% for 2 doses of MMR; and 93.8% for 2 doses of varicella vaccine. The median percentage of kindergartners with an exemption from at least one vaccine§ was 2.0%, similar to 2015–16 (1.9%). Median grace period and provisional enrollment was 2.0%. Vaccination coverage remains consistently high and exemptions low at state and national levels. Local-level vaccination coverage data provide opportunities for immunization programs to identify schools, districts, counties, or regions susceptible to vaccine-preventable diseases and for schools to address undervaccination through implementation of existing state and local vaccination policies (*1*) to protect communities through increased coverage.

Federally funded immunization programs partner with departments of education and school nurses and other school personnel to assess vaccination coverage and exemption status of children enrolled in public and private kindergartens.¶ In accordance with state and local school entry requirements, parents and guardians submit their children's vaccination records or exemption forms to schools, or schools obtain kindergartners' records from their states' immunization information systems. During the 2016–17 school year, 49 states reported data on coverage for all state-required vaccines among public and private school kindergartners, 50 states reported exemption data on public school kindergartners, and 49 states reported exemption data on private school kindergartners. Seven states reported coverage and exemption data for at least some homeschooled kindergartners.** Twenty-seven states reported data on kindergartners who, at the time of the assessment, were attending school under a grace period (a set number of days during which a student can be enrolled and attend school without proof of complete vaccination or exemption) or provisional enrollment (a provision that allows a student without complete vaccination or exemption to attend school while completing a catch-up vaccination schedule).

During the 2016–17 school year, vaccination assessments varied by immunization program because of differences in state requirements regarding required vaccinations and number of doses required, vaccines assessed, school assessment, data reported, and available resources. Among the 50 states reporting data, 35 used a census to collect kindergarten vaccination

* Federally funded immunization programs are located in the 50 states and District of Columbia (DC) ("states"), five cities, and eight U.S territories and freely associated states ("territories"). Two cities reported data to CDC, which were included in their state data to calculate medians. Immunization programs in U.S. territories reported vaccination coverage and exemptions to CDC; however, these data were not included in median calculations.

† Median vaccination coverage was determined using estimates for 49 states; Oklahoma and Wyoming did not report data because of widespread problems with the quality of data reported by schools. Data from cities and territories were not included in median calculation.

§ Median exemption rate was determined using estimates for 46 states; Wyoming did not report data because of widespread problems with the quality of data reported by schools, and Colorado, Illinois, Minnesota, and Missouri were excluded because they could not report the number of kindergartners with an exemption because of the way they collect the data. Data from local areas and territories were not included in median calculation.

¶ Assessment date varied by state/area.

** California included data for independent study students in public school data and data for homeschools with six or more students in private school data. Massachusetts included two virtual schools in the public school data. North Dakota reported some homeschool data separately. Oregon reported some homeschool data separately; children enrolled in public online homeschools were included in the public school data. Pennsylvania included all homeschooled students in their public school data. Utah included some homeschooled students in public and private school data. Vermont included homeschooled students in their public and private school data if the students were enrolled in one or more classes at a school; homeschooled children who were exclusively homeschooled were not subject to vaccination requirements and were not included in these estimates.

data; nine used a sample; four used a voluntary school response; and two used a mix of sampling methods.[††] States used the same methods to collect both vaccination coverage and exemption data, except in Alaska, Kansas, Virginia, and Wisconsin, where a sample was used to collect vaccination coverage data and a census to collect exemption data. Five states (Delaware, Hawaii, Nevada, New Mexico, and South Carolina) used a sample for both vaccination coverage and exemption data. Kindergartners were considered up-to-date and included in the coverage estimate for a given vaccine if they received all doses required for school entry,[§§] except in seven states[¶¶] that considered kindergartners up-to-date only if they had received all doses of all vaccines required for school entry in those states. Kindergartners with a history of varicella disease were reported as either vaccinated against varicella or medically exempt, varying by immunization program. Medical exemptions were issued by a health care provider; all other exemptions (i.e., religious and philosophical) were nonmedical.

This report presents vaccination coverage for MMR, DTaP, and varicella vaccines. Coverage for these vaccines and hepatitis B and poliovirus vaccines that are required in most states is presented on SchoolVaxView (*3*). Vaccination coverage and exemption estimates were adjusted based on survey type and response rates.[***] Medians and ranges of state MMR vaccination coverage and of exemption rates collected from the 2011–12 school year through the 2016–17 school year were examined over time. During the 2016–17 school year, vaccination coverage data were reported for approximately 3,973,172 kindergartners, exemption data for approximately 3,666,870, and grace period and provisional enrollment data for approximately 2,463,131.[†††]

Summary

What is already known about this topic?

Immunization programs conduct annual kindergarten vaccination assessments to monitor school-entry vaccination coverage for all state-required vaccines.

What is added by this report?

Median vaccination coverage was 94.0% for 2 doses of measles, mumps, and rubella vaccine; 94.5% for the state-required number of doses of diphtheria, tetanus, and acellular pertussis vaccine; and 93.8% for 2 doses of varicella vaccine. The median exemption level remained low (2.0%) but exemption rates varied by state. The median proportion of kindergartners under a grace period or provisional enrollment was 2.0%, the same as in 2015–16.

What are the implications for public health practice?

Vaccination coverage might vary at the local level. School assessment allows immunization programs to focus on schools with lower vaccination coverage and higher exemption levels, allowing schools to follow up with undervaccinated students to help ensure kindergartners are protected from vaccine preventable diseases.

Since the 2011–12 school year, median kindergarten MMR vaccination coverage has remained near 95% and median exemption rates have remained ≤2% (Figure). Among the 49 states included in this analysis, median MMR coverage was 94.0% (range = 85.6% [DC] to 99.4% [Mississippi]); 20 states reported coverage ≥95%; and six states (Alaska, Colorado, Idaho, Indiana, Kansas, and DC) reported coverage <90% (Table 1). Among the 48 states that required and reported DTaP vaccination, median coverage was 94.5% (range = 82.2% [DC] to 99.6% [Maryland]); 23 states reported coverage ≥95% and six states (Alaska, Arkansas, Colorado, Idaho, Kansas, and DC) reported coverage <90%. Among the 42 states that required and reported 2 doses of varicella vaccine, median coverage was 93.8% (range = 84.6% [DC] to 99.4% [Mississippi]); 15 states reported coverage ≥95%, and seven states (Alaska, Colorado, Idaho, Indiana, Kansas, Washington,

[††] States using a census attempted to collect data from all kindergartners at all schools and succeeded in collecting data for ≥90% of students. The type of sample employed by the nine states using a sample to collect coverage data varied and included a stratified two-stage cluster sample (eight states) and a stratified one-stage cluster sample (one state). A voluntary response of schools was defined as a census survey with a response rate <90% of the known population of kindergartners. A mix of methods included two or more described sampling methods, usually a census for one school type and voluntary response for the other.

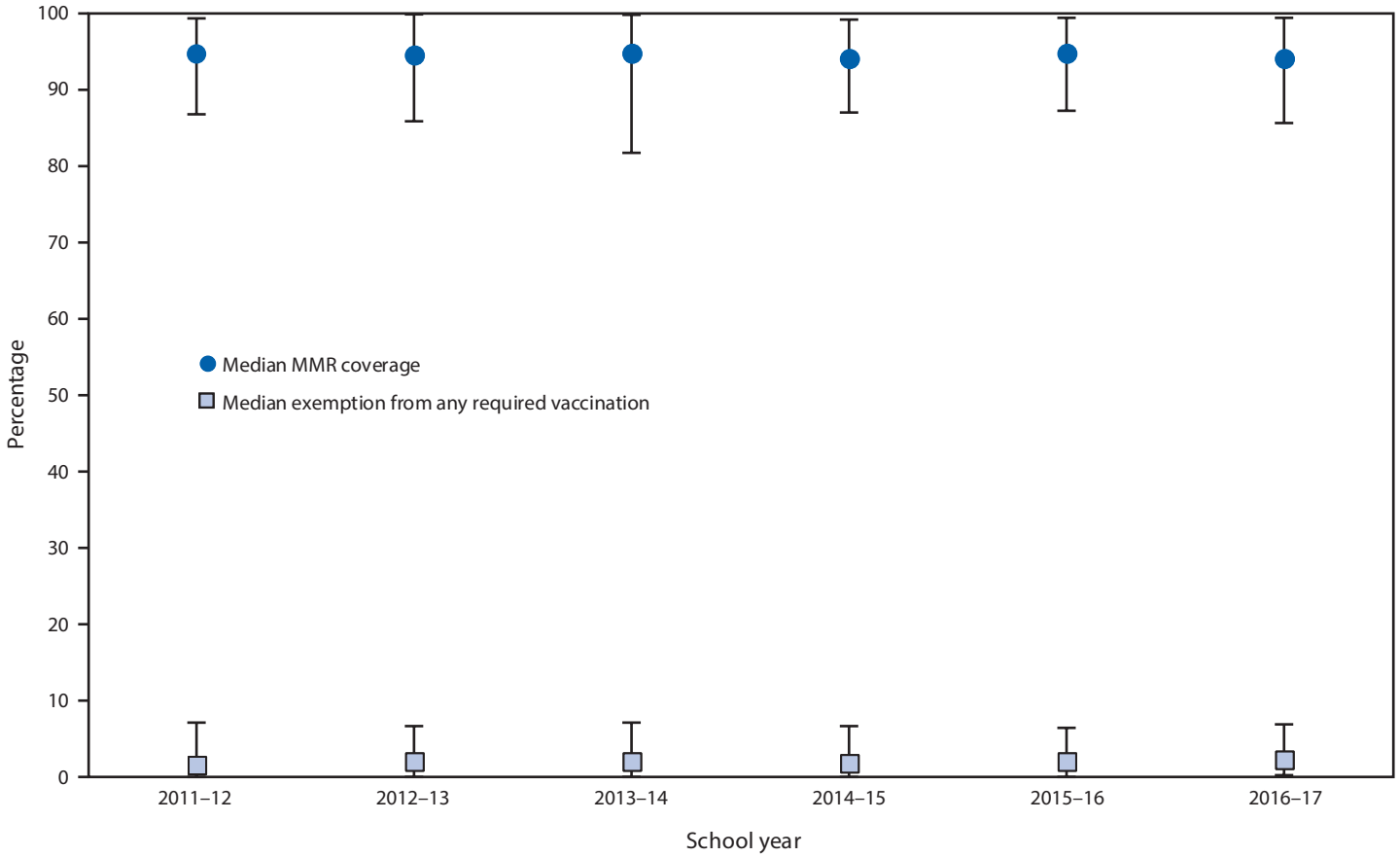
[§§] All 50 states and DC required 2 doses of a measles-containing vaccine; MMR is the only measles-containing vaccine available in the United States. Local DTaP requirements varied. Nebraska required 3 doses, four states (Illinois, Maryland, Virginia, and Wisconsin) required 4 doses, Pennsylvania did not require pertussis vaccination, and all other states required 5 doses, unless the fourth dose was administered on or after the fourth birthday. The reported coverage estimates represent the percentage of kindergartners with the state-required number of DTaP doses, except for Kentucky, which required 5 doses of DTaP by age 5 years, but reported 4-dose coverage for kindergartners. Eight states required 1 dose of varicella vaccine and 42 states and DC required 2 doses.

[¶¶] Alabama, Florida, Georgia, Iowa, Mississippi, New Hampshire, and New Jersey considered kindergartners up-to-date only if they had received all doses of all vaccines required for school entry.

[***] Most immunization programs that used census or voluntary response provided CDC with data aggregated at the state or local (city or territory) level. Coverage and exemption data based on a census or voluntary response were adjusted for nonresponse using the inverse of the response rate, stratified by school type (public, private, and home school, where available). Programs that used complex sample surveys provided CDC with deidentified data aggregated at the school or county level for weighted analysis. Weights were calculated to account for sample design and adjusted for nonresponse for data collected through complex sample design wherever possible.

[†††] The kindergarten population is an approximation provided by each immunization program. The totals reported here are the summations of the kindergarten population among programs reporting data for coverage, exemptions, and grace period or provisional enrollment. Data from cities and territories were not included in these totals.

FIGURE. Median and range* of measles, mumps, and rubella vaccine (MMR) coverage and exemptions from any required vaccination† among kindergartners — United States, 2011–12 to 2016–17 school years



Source: School Vaccination Assessment Program, 2011–12, 2012–13, 2013–14, 2014–15, 2015–16, and 2016–17 school years. https://www.cdc.gov/vaccines/vaxview/index.html.

* Data from local areas and territories are not included. Number of states whose data are included in the MMR coverage medians and ranges varied by year: 2011–12 (44 states); 2012–13 (46); 2013–14 (47); 2014–15 (50); 2015–16 (51); and 2016–17 (49). Number of states whose data are included in the exemption medians and ranges varied by year: 2011–12 through 2014–15 (46 states); 2015–16 (48); and 2016–17 (46).

† Represents the number of children who are exempt from any vaccination, not just MMR.

and DC) reported coverage <90%. Thirty states[§§§] published 2015–16 or 2016–17 local-level data (county, parish, school district, school, or other level) online for vaccination coverage, exemptions, or both (Table 1).

The median percentage of kindergartners with an exemption from one or more required vaccines (not limited to MMR, DTaP, and varicella vaccines) among the 46 states reporting this information was 2.0% (range = 0.1% [Mississippi] to 6.8% [Alaska]), similar to the median of 1.9% reported for this group during the 2015–16 school year (Table 2). The percentage of kindergartners with any exemption was <1% in four states (Alabama, Louisiana, Mississippi, and West Virginia), and ≥4% in nine states (Alaska, Arizona, Idaho, Maine, Nevada, Oregon, Utah, Washington, and Wisconsin). From the 2015–16 to the 2016–17 school year, the exemption rate decreased by >1.0 percentage points in two states (California and Vermont) and increased by >0.5 percentage points in seven states (Alaska, Georgia, Nevada, New Hampshire, New Mexico, North Carolina, and Wisconsin). Among states that reported exemptions by type, the median percentage of medical exemptions was 0.2% (range = <0.1% in two states [Delaware and New Mexico] to 1.5% [Alaska]), and the median percentage of nonmedical exemptions was 1.8% (range = 0.5% [DC] to 6.5% [Oregon]).

§§§ https://www.cdc.gov/vaccines/imz-managers/coverage/schoolvaxview/data-reports/index.html.

TABLE 1. Estimated vaccination coverage* for MMR, DTaP, and varicella vaccines among children enrolled in kindergarten, by vaccine and immunization program — United States and territories, 2016–2017 school year

Immunization program	Kindergarten population†	No. (%) surveyed	Type of survey conducted§	Local data available online¶	% MMR** 2 doses	% DTaP†† 5 doses	% Varicella 1 dose	% Varicella 2 doses
Median§§					**94.0**	**94.5**	**96.5**	**93.8**
Alabama¶¶	58,394	58,394 (100.0)	Census	Yes	≥93.8	≥93.8	≥93.8	NReq
Alaska***,†††	9,815	747 (7.6)	Stratified 2-stage cluster sample	No	89.0	89.1	NA	88.9
Arizona¶¶	83,627	83,627 (100.0)	Census	Yes	94.0	93.9	96.7	NReq
Arkansas§§§	39,666	30,091 (75.9)	Voluntary response	No	91.9	89.2	NA	91.7
California§§§	575,305	562,924 (97.8)	Census	Yes	97.3	96.9	98.5	NReq
Colorado¶¶	64,440	64,440 (100.0)	Census	Yes	87.3	86.8	NA	86.1
Connecticut¶¶	39,002	39,002 (100.0)	Census	Yes	96.7	96.7	NA	96.5
Delaware	11,490	1,066 (9.3)	Stratified 2-stage cluster sample	No	98.5	98.7	NA	98.2
District of Columbia¶¶	8,522	8,522 (100.0)	Census	No	85.6	82.2	NA	84.6
Florida¶¶,***	224,463	224,463 (100.0)	Census	Yes	≥94.1	≥94.1	NA	≥94.1
Georgia¶¶	136,165	136,165 (100.0)	Census	No	≥93.3	≥93.3	NA	≥93.3
Hawaii	16,325	1,093 (6.7)	Stratified 2-stage cluster sample	No	93.5	93.3	95.3	NReq
Idaho¶¶	22,589	22,589 (100.0)	Census	Yes	89.9	89.8	NA	89.1
Illinois	151,309	147,857 (97.7)	Census	No	94.9	95.0	NA	94.5
Indiana	83,263	66,885 (80.3)	Voluntary response	Yes	88.9	92.1	NA	87.9
Iowa¶¶	39,587	39,587 (100.0)	Census	Yes	≥92.6	≥92.6	NA	≥92.6
Kansas***,†††,§§§	38,298	8,789 (22.9)	Stratified 2-stage cluster sample	Yes	89.5	88.7	NA	88.8
Kentucky***,§§§	51,487	47,814 (92.9)	Census	Yes	90.8	92.5	NA	90.4
Louisiana¶¶	55,257	55,257 (100.0)	Census	Yes	97.1	98.0	NA	96.5
Maine	13,834	12,462 (90.1)	Voluntary response (public), census (private)	Yes	94.9	96.3	96.7	NReq
Maryland§§§	71,467	70,106 (98.1)	Census	No	99.3	99.6	NA	99.0
Massachusetts¶¶,§§§	70,109	70,109 (100.0)	Census	Yes	96.1	96.1	NA	95.7
Michigan¶¶	118,777	118,777 (100.0)	Census	Yes	95.6	95.8	NA	95.3
Minnesota***	69,140	66,861 (96.7)	Census	Yes	92.8	93.2	NA	92.3
Mississippi¶¶	40,509	40,509 (100.0)	Census	Yes	≥99.4	≥99.4	NA	≥99.4
Missouri¶¶	73,355	73,355 (100.0)	Census	No	95.4	95.5	NA	95.1
Montana¶¶	11,956	11,956 (100.0)	Census	No	93.8	93.9	NA	92.9
Nebraska¶¶,§§§,¶¶¶	27,117	27,117 (100.0)	Census	No	96.7	97.2	NA	95.8
Nevada	36,885	1,348 (3.7)	Stratified 2-stage cluster sample	No	90.9	90.0	NA	90.5
New Hampshire¶¶	12,145	12,145 (100.0)	Census	No	≥91.5	≥91.5	NA	≥91.5
New Jersey¶¶	109,577	109,577 (100.0)	Census	Yes	≥96.5	≥96.5	≥96.5	NReq
New Mexico	27,119	1,214 (4.5)	Stratified 2-stage cluster sample	No	95.5	94.8	NA	94.6
New York (including New York City)¶¶	227,050	227,035 (100.0)	Census	Yes	97.3	96.9	NA	96.9
New York City¶¶	102,374	102,374 (100.0)	Census	No	97.7	97.0	NA	97.2
North Carolina***,§§§	126,454	111,544 (88.2)	Voluntary response	No	96.2	96.1	NA	95.9
North Dakota	9,799	9,675 (98.7)	Census	Yes	93.8	93.8	NA	93.5
Ohio	137,542	131,385 (95.5)	Census	No	92.6	92.4	NA	91.9
Oklahoma§§§,****	52,184	48,453 (92.9)	Census	No	NA	NA	NA	NReq
Oregon¶¶,§§§	45,705	45,705 (100.0)	Census	Yes	93.8	93.2	95.0	NReq
Pennsylvania	143,888	121,405 (84.4)	Voluntary response	Yes	93.6	NReq††††	NA	94.6
Rhode Island***,§§§	11,100	10,920 (98.4)	Census	Yes	95.1	95.6	NA	94.8
South Carolina	59,177	5,277 (8.9)	Stratified 1-stage cluster sample	No	96.0	96.2	NA	95.7
South Dakota	12,106	12,081 (99.8)	Census	Yes	96.7	96.4	NA	95.4

See table footnotes on the next page.

Twenty-seven states¶¶¶ reported data on grace period or provisional enrollment for the 2016–17 school year. The median reported percentage of kindergartners attending school during a grace period or provisional enrollment was 2.0% (range = 0.2% [Georgia] to 8.1% [Pennsylvania]) (Table 2). In 12 of 27 states reporting for the 2016–17 school year, the percentage of children provisionally enrolled or within a grace period at the time of the assessment exceeded the percentage of children with exemptions from one or more vaccines.

¶¶¶ Twenty-seven states (Arkansas, California, Florida, Georgia, Hawaii, Idaho, Iowa, Maine, Michigan, Mississippi, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, South Carolina, Tennessee, Utah, Vermont, Washington, West Virginia, and Wisconsin) reported data on kindergartners attending school under a grace period or provisional enrollment.

Discussion

During the 2016–17 school year, kindergarten vaccination coverage for MMR, DTaP, and varicella vaccine each

TABLE 1. (*Continued*) Estimated vaccination coverage* for MMR, DTaP, and varicella vaccines among children enrolled in kindergarten, by vaccine and immunization program — United States and territories, 2016–2017 school year

Immunization program	Kindergarten population†	No. (%) surveyed	Type of survey conducted§	Local data available online¶	% MMR** 2 doses	% DTaP†† 5 doses	% Varicella 1 dose	% Varicella 2 doses
Tennessee¶¶,***	78,169	78,169 (100.0)	Census	No	96.9	96.8	NA	96.7
Texas (including Houston)***,§§§	389,999	386,149 (99.0)	Census	Yes	97.3	97.2	NA	96.6
Houston***,§§§	42,086	40,802 (96.9)	Census (public), voluntary response (private)	No	96.1	96.1	NA	95.7
Utah¶¶	49,073	49,073 (100.0)	Census	Yes	93.8	93.7	NA	94.6
Vermont¶¶	6,344	6,344 (100.0)	Census	Yes	93.6	93.5	NA	92.5
Virginia†††	102,357	4,051 (4.0)	Stratified 2-stage cluster sample	Yes	94.1	98.2	NA	92.7
Washington***	87,142	85,601 (98.2)	Census	Yes	90.5	90.8	NA	89.3
West Virginia***	28,666	19,074 (66.5)	Census (public), voluntary response (private)	No	95.9	95.7	NA	92.6
Wisconsin***,†††,§§§	67,607	1,472 (2.2)	Stratified 2-stage cluster sample	Yes	94.0	96.6	NA	92.8
Wyoming	NA	NA	Not conducted	No	NA	NA	NA	NA
Guam	2,703	703 (26.0)	Stratified 2-stage cluster sample	No	90.3	93.5	NReq	NReq
Marshall Islands	1,248	1,248 (100.0)	Census	No	87.3	72.8	NReq	NReq
Federated States of Micronesia (Kosrae)	194	194 (100.0)	Census	No	88.7	91.8	NReq	NReq
Federated States of Micronesia (Yap)	400	400 (100.0)	Census	No	91.3	92.0	NReq	NReq
N. Mariana Islands¶¶	865	865 (100.0)	Census	No	89.8	75.3	NA	88.0
Palau¶¶,¶¶¶	333	333 (100.0)	Census	No	59.8	64.9	NReq	NReq
Puerto Rico	23,142	1,384 (6.0)	Stratified 2-stage cluster sample	No	96.2	96.1	NA	95.9
U.S. Virgin Islands	1,244	505 (40.6)	Stratified 2-stage cluster sample	No	88.9	88.5	NA	88.1

Abbreviations: DTaP = diphtheria, tetanus, and acellular pertussis vaccine; MMR = measles, mumps, and rubella vaccine; NA = not available (i.e., not collected or reported to CDC); NReq = not required for school entry.

* Estimates were adjusted for nonresponse and weighted for sampling where appropriate. Estimates based on a completed vaccination series (i.e., not vaccine-specific) use the "≥" symbol. Coverage might include history of disease or laboratory evidence of immunity.

† The kindergarten population is an approximation provided by each program.

§ Sample designs varied by state/area: census = program attempted to include all schools (public and private),and all children within schools in the assessment, and had a student response rate of ≥90%; 1-stage or 2-stage cluster sample = schools were randomly selected, and all children in the selected schools were assessed (1-stage) or a random sample of children within the schools was selected (2-stage); voluntary response = a census with a student response rate of <90% (does not imply that participation was optional).

¶ Some programs publish kindergarten vaccination data online that are more detailed than the state-level estimates in this table. Examples of more detailed data include county, parish, school district, and school-level estimates.

** MMR is the only measles containing vaccine available in the United States. Most states require 2 doses of MMR; Alaska, New Jersey, and Oregon require 2 doses of measles, 1 dose of mumps, and 1 dose of rubella vaccines. Georgia, New York, New York City, North Carolina, Pennsylvania, and Virginia require 2 doses of measles and mumps, 1 dose of rubella vaccines. Iowa requires 2 doses of measles and 2 doses of rubella vaccines.

†† Pertussis vaccination coverage might include some diphtheria, tetanus toxoids, and pertussis vaccine (DTP) vaccinations if administered in another country or by a vaccination provider who continued to use DTP after 2000. Most states require 5 doses of DTaP for school entry; Illinois, Maryland, Virginia, and Wisconsin require 4 doses; Nebraska requires 3 doses. Pennsylvania does not require pertussis vaccine. The reported coverage estimates represent the percentage of kindergartners with the state-required number of DTaP doses, except for Kentucky, which requires ≥5 but reports ≥4 doses of DTaP.

§§ Median calculated from data from 48 states and the District of Columbia (i.e., does not include Oklahoma, Wyoming, Houston, New York City, Guam, Marshall Islands, Federated States of Micronesia, N. Mariana Islands, Palau, Puerto Rico, or U.S. Virgin Islands). Coverage data were reported for 3,973,172 kindergartners.

¶¶ The proportion surveyed likely was <100%, but is reported as 100% based on incomplete information about the actual current enrollment.

*** Did not include some types of schools, such as online schools or those located in military bases or correctional facilities.

††† Kindergarten vaccination coverage data were collected from a sample, and exemption data were collected from a census of kindergartners.

§§§ Counted some or all vaccine doses received regardless of Advisory Committee on Immunization Practices recommended age and time interval; vaccination coverage rates reported might be higher than those for valid doses.

¶¶¶ For Nebraska, estimates represent coverage among children in kindergarten and first grade. For Palau, estimates represent coverage among children in first grade.

**** Reported public school data only.

†††† Pertussis vaccine is not required in Pennsylvania. Coverage for tetanus and diphtheria toxoids was 94.8%.

approached 95%, and the median exemption rate among children attending kindergarten was 2%; these rates have been relatively consistent since the 2011–12 school year. The median percentage of kindergartners attending school under a grace period or provisional enrollment was 2.0%. Although vaccination rates have remained high and stable, four states have reported coverage <90% for at least one vaccine for at least 6 consecutive years (*3*). In addition, coverage can vary within states, and clusters of undervaccinated kindergartners can exist in states with high overall rates.

Four states (California, New York, North Dakota, and Tennessee) reported increases in coverage of ≥1.5 percentage points for all reported vaccines (*3*); these increases might have resulted from programmatic measures to address

TABLE 2. Estimated number and percentage* of children enrolled in kindergarten with reported type of exemption from vaccination and grace period/provisional enrollment, by immunization program† — United States and territories, 2016–17 school year

Immunization program	Medical exemptions, no. (%)	Nonmedical exemptions			Any exemption				Grace period/ Provisional enrollment,§ No. (%)
		Religious, no.	Philosophical, no.	Total, no. (%)	2016–2017, No.	2016–2017, %	2015–2016, %	Percentage point difference (2015–16 to 2016–17)	
Median¶	**(0.2)**	—	—	**(1.8)**	—	**2.0**	**1.9**	**0.1**	**(2.0)**
Alabama	62 (0.1)	367	**	367 (0.6)	429	0.7	0.8	-0.1	NA
Alaska	149 (1.5)	514	**	514 (5.2)	663	6.8	5.9	0.9	NA
Arizona	134 (0.2)	††	4,106	4,106 (4.9)	4,240	5.1	4.7	0.4	NA
Arkansas	24 (0.1)	169	344	513 (1.3)	537	1.4	1.3	0.1	3,014 (7.6)
California	2,928 (0.5)	§§	§§	3,217 (0.6)	6,144	1.1	2.5	-1.4	10,999 (1.9)
Colorado¶¶	NA	NA	NA	NA	NA	NA	4.3	NA	NA
Connecticut	107 (0.3)	701	**	701 (1.8)	808	2.1	2.0	0.1	NA
Delaware	7 (<0.1)	133	**	133 (1.2)	140	1.2	1.2	0.0	NA
District of Columbia	47 (0.6)	42	**	42 (0.5)	89	1.1	1.0	0.1	NA
Florida	841 (0.4)	4,725	**	4,725 (2.1)	5,566	2.5	2.2	0.3	7,293 (3.2)
Georgia	198 (0.1)	3,613	**	3,613 (2.7)	3,811	2.8	1.9	0.9	308 (0.2)
Hawaii	20 (0.1)	455	**	455 (2.7)	474	2.8	2.9	-0.1	310 (1.8)
Idaho	86 (0.4)	127	1,265	1,392 (6.2)	1,478	6.5	6.1	0.4	444 (2.0)
Illinois¶¶	NA	NA	NA	NA	NA	NA	NA	NA	NA
Indiana	112 (0.1)	697	**	697 (0.8)	809	1.0	1.2	-0.2	NA
Iowa	79 (0.2)	622	**	622 (1.6)	701	1.8	1.8	0.0	1,478 (3.7)
Kansas	115 (0.3)	569	**	569 (1.5)	683	1.8	1.6	0.2	NA
Kentucky	217 (0.4)	366	**	366 (0.7)	583	1.1	0.9	0.2	NA
Louisiana	54 (0.1)	32	364	396 (0.7)	450	0.8	0.8	0.0	NA
Maine	32 (0.2)	36	622	658 (4.8)	691	5.0	4.5	0.5	154 (1.1)
Maryland	391 (0.5)	628	**	628 (0.9)	1,019	1.4	1.3	0.1	NA
Massachusetts	191 (0.3)	702	**	702 (1.0)	893	1.3	1.3	0.0	NA
Michigan	213 (0.2)	872	3,262	4,134 (3.5)	4,347	3.7	3.6	0.1	885 (0.7)
Minnesota¶¶	NA	NA	NA	NA	NA	NA	NA	NA	NA
Mississippi	31 (0.1)	††	**	††,**	31	0.1	<0.1	0.1	210 (0.5)
Missouri¶¶	NA	NA	NA	NA	NA	NA	NA	NA	NA
Montana	53 (0.4)	391	**	391 (3.3)	444	3.7	3.8	-0.1	209 (1.7)
Nebraska***	186 (0.7)	367	**	367 (1.4)	553	2.0	2.0	0.0	881 (3.2)
Nevada	53 (0.1)	1,585	**	1,585 (4.3)	1,638	4.4	2.0	2.4	1,042 (2.8)
New Hampshire	29 (0.2)	365	**	365 (3.0)	394	3.2	2.6	0.6	633 (5.2)
New Jersey	196 (0.2)	1,881	**	1,881 (1.7)	2,077	1.9	1.8	0.1	1,191 (1.1)
New Mexico	6 (<0.1)	604	**	604 (2.2)	610	2.3	1.3	1.0	182 (0.7)
New York (including New York City)	345 (0.2)	1,975	**	1,975 (0.9)	2,320	1.0	0.9	0.1	4,444 (2.0)
New York City	78 (0.1)	581	**	581 (0.6)	659	0.6	0.4	0.2	1,444 (1.4)
North Carolina	174 (0.1)	2,073	**	2,073 (1.6)	2,247	1.8	1.1	0.7	2,138 (1.7)
North Dakota	24 (0.2)	64	244	307 (3.1)	332	3.4	3.3	0.1	NA
Ohio	414 (0.3)	§§	§§	2,836 (2.1)	3,251	2.4	2.3	0.1	6,320 (4.6)
Oklahoma†††	79 (0.2)	290	620	910 (1.7)	989	1.9	1.6	0.3	NA
Oregon	55 (0.1)	§§	§§	2,992 (6.5)	3,047	6.7	6.3	0.4	NA
Pennsylvania	537 (0.4)	1,256	1,523	2,778 (1.9)	3,315	2.3	2.2	0.1	11,622 (8.1)
Rhode Island	22 (0.2)	109	**	109 (1.0)	131	1.2	1.1	0.1	NA
South Carolina	55 (0.1)	1,124	**	1,124 (1.9)	1,180	2.0	1.6	0.4	385 (0.6)
South Dakota	21 (0.2)	219	**	219 (1.8)	241	2.0	1.6	0.4	NA

See table footnotes on the next page.

undervaccination and incomplete documentation of vaccination during the 2016–17 school year. California eliminated new nonmedical exemptions for kindergartners attending public or private school (*4*,*5*) and continued to educate school staff members on criteria for provisional enrollment, thus reducing provisional enrollment from 4.4% to 1.9% (*6*). New York conducted webinars to train school staff members on vaccination requirements, exemptions, and exclusion policies; coverage increased by >1.5 percentage points for all reported vaccines in 2016–17 (Assessment Branch, Immunization Services Division, CDC, unpublished data, 2017). In North Dakota, school superintendents were educated about the importance of immunizations and their mandated role in enforcement of requirements (*7*), which prompted most school districts in the state to begin strict enforcement of school

TABLE 2. (*Continued*) Estimated number and percentage* of children enrolled in kindergarten with reported type of exemption from vaccination and grace period/provisional enrollment, by immunization program† — United States and territories, 2016–17 school year

Immunization program	Medical exemptions, no. (%)	Nonmedical exemptions			Any exemption				Grace period/ Provisional enrollment,§ No. (%)
		Religious, no.	Philosophical, no.	Total, no. (%)	2016–2017, No.	2016–2017, %	2015–2016, %	Percentage point difference (2015–16 to 2016–17)	
Tennessee	103 (0.1)	882	**	882 (1.1)	985	1.3	1.1	0.2	1,007 (1.3)
Texas (including Houston)	822 (0.2)	§§	§§	6,078 (1.6)	6,900	1.8	1.6	0.2	NA
Houston	69 (0.2)	§§	§§	333 (0.8)	401	1.0	0.9	0.1	NA
Utah	88 (0.2)	4	2,391	2,395 (4.9)	2,483	5.1	4.6	0.5	1,061 (2.2)
Vermont	15 (0.2)	234	**	234 (3.7)	249	3.9	5.7	-1.8	408 (6.4)
Virginia	225 (0.2)	1,048	**	1,048 (1.0)	1,273	1.2	1.2	0.0	NA
Washington	805 (0.9)	257	3,187	3,444 (4.0)	4,161	4.8	4.5	0.3	1,824 (2.1)
West Virginia	75 (0.3)	††	**	††,**	75	0.3	0.2	0.1	1,198 (4.2)
Wisconsin	194 (0.3)	271	3,238	3,509 (5.2)	3,702	5.5	3.3	2.2	1,567 (2.3)
Wyoming	NA	NA	NA	NA	NA	NA	NA	NA	NA
Guam	0 (<0.1)	7	**	7 (0.2)	7	0.2	<0.1	0.2	NA
Marshall Islands	0 (0.0)	0	**	0 (0.0)	0	0.0	NA	NA	NA
Federated States of Micronesia (Kosrae)	0 (0.0)	0	0	0 (0.0)	0	0.0	NA	NA	NA
Federated States of Micronesia (Yap)	0 (0.0)	0	0	0 (0.0)	0	0.0	NA	NA	NA
N. Mariana Islands	0 (0.0)	0	0	0 (0.0)	0	0.0	0.0	0.0	NA
Palau***	0 (0.0)	§§	§§	0 (0.0)	0	0.0	NA	NA	NA
Puerto Rico	43 (0.2)	57	**	57 (0.2)	101	0.4	0.3	0.1	NA
U.S. Virgin Islands	0 (<0.1)	12	**	12 (0.9)	12	0.9	0.6	0.3	NA

Abbreviation: NA = not available (i.e., not collected or reported to CDC).

* Estimates were adjusted for nonresponse and weighted for sampling where appropriate.

† Medical exemptions, nonmedical exemptions, and grace period/provisional enrollment status might not be mutually exclusive. Some children might have both medical and nonmedical exemptions, and some enrolled under a grace period/provisional enrollment might be exempt from one or more vaccinations.

§ A grace period is a set number of days during which a student can be enrolled and attend school without proof of complete vaccination or exemption. Provisional enrollment allows a student without complete vaccination or exemption to attend school while completing a catch-up vaccination schedule. In states with one or both of these policies, the estimates represent the number of kindergartners within a grace period, provisionally enrolled, or some combination of these categories.

¶ Medians calculated from data from 45 states and District of Columbia; states/jurisdictions excluded were Colorado, Illinois, Minnesota, Missouri, and Wyoming. Houston, New York City, Guam, Marshall Islands, Federated States of Micronesia, N. Mariana Islands, Palau, Puerto Rico, and U.S. Virgin Islands were also excluded. Exemption data were reported for 3,666,870 kindergartners. Grace period/provisional enrollment median was calculated from data from 27 states; data were reported for 2,463,131 kindergartners.

** Philosophical exemptions were not allowed.

†† Religious exemptions were not allowed.

§§ Religious and philosophical exemptions were not reported separately.

¶¶ Program did not report the number of children with exemptions, but instead reported the number of exemptions for each vaccine, which could count some children more than once. Lower bounds of the percentage of children with any exemptions estimated using the individual vaccines with the highest number of exemptions are: for Colorado, 0.2% with medical exemptions, 0.3% with religious exemptions, 3.1% with philosophical exemptions, and 3.6% with any exemptions; for Illinois, 0.2% with medical exemptions, 1.2% with religious exemptions, and 1.4% for any exemptions; for Minnesota, 0.2% with medical exemptions, 3.1% with nonmedical exemptions, and 3.3% for any exemptions; and for Missouri 0.2% with medical exemptions, 2.0% with religious exemptions, and 2.2% for any exemptions.

*** For Nebraska, estimates represent exemptions among children in kindergarten and 1st grade. For Palau, estimates represent coverage among children in 1st grade.

††† Reported public school data only.

vaccination requirements, leading to increases in coverage of >3 percentage points for MMR, DTaP, and varicella vaccine in 2016–17. In Tennessee, the immunization program worked to increase the proportion of public school kindergartners who were completely up to date in the state's immunization information systems and to improve schools' capacity to correctly assess student vaccination status; MMR, DTaP, and varicella vaccination coverage increased >3 percentage points in Tennessee in 2016–17 (Assessment Branch, Immunization Services Division, CDC, unpublished data, 2017).

In 12 of 27 states reporting for the 2016–17 school year, the percentage of children provisionally enrolled or within a grace period at the time of the assessment exceeded the percentage of children with exemptions for one or more vaccines, indicating that children who do not have exemptions are not receiving their childhood immunizations in a timely fashion. The median percentage of children provisionally enrolled or

within a grace period for the 2016–17 school year was 2.0%, which is the same as for the 2015–16 school year. Pennsylvania's estimated grace period and provisional enrollment prevalence increased from 5.1% to 8.1%, probably because the assessment date changed from March 31 in the 2015–16 school year to December 31 in the 2016–17 school year, giving students enrolled under the grace period less time to complete required vaccination and documentation (Assessment Branch, Immunization Services Division, CDC, unpublished data, 2017). CDC encourages programs to collect and use these data to identify areas with high rates of provisional or grace period enrollment, where increasing coverage through a targeted intervention might be possible.

The number of states sharing local-level school vaccination coverage increased from 25 to 30 *(8)*. The online sharing of local-level data with the public contributes to transparency in public health by placing information about the risk for vaccine preventable diseases in the hands of parents and communities. The type of data published (exemptions, vaccine-specific coverage, complete vaccination, compliance with documentation requirements, and other information) varies across states, as does the geographic level of detail (school, school district, county, region of the state, or other geographic or administrative area), and the method of displaying the data (table, chart, map, or other format).

The findings in this report are subject to at least four limitations, which have been reported previously (*8*). First, comparability is limited because of variations in states' requirements, data collection methods, and definitions of grace period and provisional enrollment. Second, representativeness might be negatively affected because of data collection methodologies that miss some schools or students or assess vaccination status at different times. Collecting vaccination and exemption data from a validated census of schools and students can improve comparability and representativeness of the data, and therefore, census data are the most programmatically useful. The majority of immunization programs do use a census to collect vaccination and exemption data. Third, actual vaccination coverage, exemption estimates, or both might be under- or overestimated because of improper or absent documentation. Finally, median coverage estimates include only 48 of 50 states and DC, median exemptions estimates include only 45 of 50 states and DC, and the median grace period or provisional enrollment estimate includes only 27 states for the 2016–17 school year.

Kindergarten vaccination requirements provide an opportunity for children to be fully vaccinated with recommended age-appropriate vaccines and to catch up on any missed early childhood vaccinations. CDC works with immunization programs to monitor kindergarten vaccination coverage, improve data quality, and promote data use for effective program planning. Based on state-level kindergarten vaccination data reported to CDC, median vaccination coverage was consistently high and median exemption rates were consistently low. However, clusters of low vaccination coverage continue to serve as opportunities for outbreaks of vaccine-preventable diseases (*9*). Because vaccination coverage and exemption levels are clustered locally, availability of local-level vaccination data can help immunization programs identify schools that might be vulnerable in an outbreak. CDC is working with programs to improve collection and use of grace period and provisional enrollment data to understand contributing factors for reported undervaccination and identify programmatic actions that might increase vaccination coverage among kindergartners.

Conflict of Interest

No conflicts of interest were reported.

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Notes from the Field

Multiple Cases of Seoul Virus Infection in a Household with Infected Pet Rats — Tennessee, December 2016–April 2017

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In late December 2016, a female aged 18 years in Tennessee (patient A) developed fever, chills, anorexia, nausea, and hematuria. Approximately 1 week later, she was evaluated by her local physician and received a diagnosis of an unspecified viral illness. Laboratory testing at that time was notable only for an elevated creatinine level (1.27 mg/dL; normal = 0.60–1.10 mg/dL). She recovered from her illness without treatment or complications.

In January 2017, an outbreak of Seoul virus infection was identified among rat breeders and owners in Wisconsin and Illinois. CDC assisted Illinois and Wisconsin health officials in performing tracing of potentially infected or exposed rats, and in late January 2017, the Tennessee Department of Health was notified that pet rats owned by patient A were linked to confirmed Seoul virus–infected rats. On February 14, 2017, a follow-up specimen of patient A's blood tested positive for Seoul virus immunoglobulin M and immunoglobulin G by enzyme-linked immunosorbent assay; she declined testing of her rats, although they were presumed to be positive in light of the patient's confirmed infection. Consistent with CDC guidance, the Tennessee Department of Health recommended euthanizing the rats; however, patient A refused. In collaboration with the Tennessee Department of Agriculture, an order of quarantine was issued to patient A, prohibiting movement of the rodents from her home. In addition, she and her family received extensive education about risk reduction techniques, including avoiding contact with rodent urine, droppings, saliva, and nesting materials.

In late April 2017, patient B, aged 38 years and the mother of patient A, was evaluated at a local hospital emergency department for multiple days of high fever, anorexia, fatigue, and shortness of breath. At the time of evaluation, her fever was 104.5°F (40.3°C). Laboratory testing was notable for a slightly elevated creatinine level (1.13 mg/dL) and slight thrombocytopenia (platelet count = 143,000/μL; normal = 150,000–450,000/μL). A blood specimen tested positive for Seoul virus immunoglobulin M and immunoglobulin G by enzyme-linked immunosorbent assay, and Seoul virus RNA was detected by reverse transcription–polymerase chain reaction testing. Although patient B lived in the same house as patient A, she only recalled one noteworthy exposure to rodent droppings, having cleaned some from a bathtub approximately 3 weeks before her illness onset.

Seoul virus is a rodent-borne hantavirus, which has been associated with hemorrhagic fever with renal syndrome,* and has a mortality rate of approximately 1–2% (*1*). It is transmitted by the brown Norway rat (*Rattus norvegicus*), which is found worldwide (*2*,*3*). As of January 2017, 17 laboratory-confirmed acute human cases of Seoul virus infection associated with pet rat contact have been identified in the United States as part of this outbreak investigation (*4*). To prevent human cases of Seoul virus infection, CDC recommends testing pet rats for Seoul virus infection and taking measures to avoid unprotected contact with infected rats or their urine, droppings, saliva, and nesting materials, and after safe cleaning techniques (*1*). Euthanasia is recommended for rats with Seoul virus infection; however, this guidance might not be heeded. For certain persons, such as rat breeders, these animals are a financial investment; for others, they are personal pets with which owners might have a substantial emotional attachment. Owners who choose to keep a potentially infected rodent place themselves, other household members, and visitors at risk for infection. Additionally, Seoul virus is easily transmitted within breeding colonies of rats, further propagating the virus and risk for human illness. This report demonstrates ongoing risk for Seoul virus infection for persons living in or visiting households with Seoul virus–infected rodents. Adherence to recommendations for euthanasia will help to mitigate ongoing risk for Seoul virus morbidity and mortality in humans.

* https://www.cdc.gov/hantavirus/hfrs/index.html.

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Conflict of Interest

No conflicts of interest were reported.

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Announcements

World Arthritis Day 2017

October 12, 2017 is World Arthritis Day (http://www.worldarthritisday.org). First observed in 1996, World Arthritis Day serves as a focus for organizations and individuals to work toward increasing awareness of arthritis and other rheumatic conditions worldwide. In the United States, 54 million adults (*1*) have some form of arthritis or other rheumatic condition. By 2040, the number of adults with arthritis is projected to increase 49% to 78.4 million, and the number of adults with arthritis-attributable activity limitation will increase 52%, from 23 million to 34.6 million (*2*).

The theme of this year's World Arthritis Day is "Don't delay. Connect today." Early diagnosis and professionally guided management is important for maintaining a good quality of life, particularly for persons with inflammatory arthritis. There are four other things that persons with arthritis can do to help manage their arthritis: 1) learn arthritis management strategies, 2) be physically active, 3) maintain a healthy weight, and 4) protect their joints. Self-management education programs help persons with arthritis learn the strategies and gain the confidence to manage their condition, and improve pain control and function. Physical activity decreases pain, improves function, and delays disability; low impact, moderate intensity activities such as walking, cycling, water exercise, and fitness classes are safe and effective for persons with arthritis. Maintaining a healthy weight can limit disease progression and activity limitation, and avoiding joint injuries from sports or occupation can reduce the likelihood of developing osteoarthritis. Additional information on these interventions is available at https://www.cdc.gov/arthritis/interventions/index.htm.

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Global Handwashing Day — October 15, 2017

October 15, 2017, marks the 10th annual Global Handwashing Day. This observance helps to increase awareness and understanding of handwashing with soap as an effective and affordable way to prevent disease around the world.

Handwashing with soap has an important role in child survival and health. Approximately 1.4 million children aged <5 years die each year from diarrheal diseases and pneumonia, the top two causes of death among young children globally (*1*). Handwashing with soap can reduce the incidence of diarrhea and respiratory infections among children in this age group by approximately 30% and 20%, respectively (*2,3*).

Although persons around the world clean their hands with water, few use soap to wash their hands, because soap and water might be less accessible in developing countries. Even when soap is available, it might be reserved primarily for laundry and bathing instead of for handwashing. Washing hands with soap removes germs more effectively than water alone (*4*), and can help in preventing diseases and saving lives. Additional information on Global Handwashing Day and handwashing in general is available from CDC at https://www.cdc.gov/handwashing. Information on water-related hygiene is available at https://www.cdc.gov/healthywater/hygiene.

References

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Announcement

Community Preventive Services Task Force Finding for Year-Round Schooling to Increase Health Equity

The Community Preventive Services Task Force (CPSTF) recently posted new information about its finding of insufficient evidence to determine the effectiveness of year-round schooling in improving academic achievement. The information for "Health Equity: Year-Round Schooling" is available at https://www.thecommunityguide.org/findings/health-equity-year-round-schooling.

Established in 1996 by the U.S. Department of Health and Human Services, the CPSTF is an independent, nonfederal panel of public health and prevention experts whose members are appointed by the director of CDC. The CPSTF provides information for a wide range of persons who make decisions about programs, services, and other interventions to improve population health. Although CDC provides administrative, scientific, and technical support for the CPSTF, the recommendations developed are those of the task force and do not undergo review or approval by CDC.

Erratum

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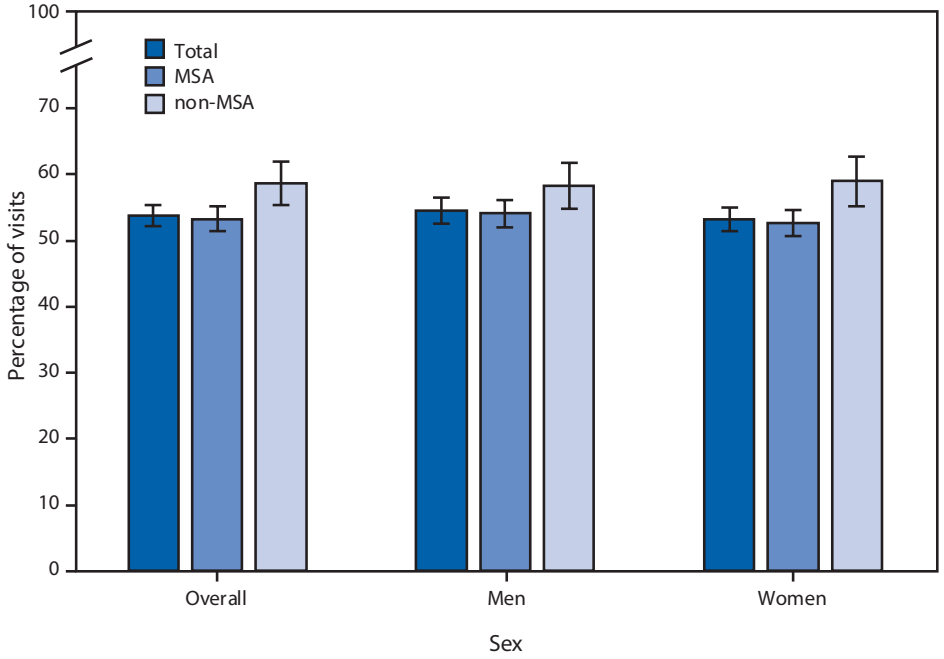
In the report "Update: Increase in Human Infections with Novel Asian Lineage Avian Influenza A(H7N9) Viruses During the Fifth Epidemic — China, October 1, 2016–August 7, 2017," on page 929, the last sentence of the first paragraph of the epidemiology section should have read "Among the 759 reported infections during the fifth epidemic, 14 clusters of two or three persons with Asian H7N9 virus infections were reported to WHO, compared with an average of **6.5** clusters in each of the previous epidemics (range = 4–11 clusters)."

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Percentage* of All Visits by Patients Aged ≥65 Years to Office-Based Physicians† Made by Patients with Hypertension,§ by Sex and Metropolitan Statistical Area (MSA)¶ — National Ambulatory Medical Care Survey, United States, 2012–2015



* With 95% confidence intervals indicated with error bars.
† Based on a sample of visits to nonfederally employed office-based physicians who are primarily engaged in direct patient care. Physicians in the specialties of anesthesiology, pathology, and radiology are excluded from the survey.
§ Defined as visits made by adults, aged ≥65 years, with documentation in the medical record of a diagnosis of hypertension, regardless of the diagnosis for the current visit. Additional information is available at https://www.cdc.gov/nchs/data/nhsr/nhsr106.pdf.
¶ Metropolitan statistical area (MSA) definitions are compiled according to Office of Management and Budget definitions of core-based statistical areas and are based on the location of the physician's office.

During 2012–2015, patients aged ≥65 years with hypertension documented in the medical record accounted for 54% of all office-based physician visits made by patients aged ≥65 years, with a higher percentage of visits in non-MSAs (59%) than MSAs (53%). Among women, the percentage of visits was also higher in non-MSAs than in MSAs (59% versus 53%). The difference among men was not statistically significant.

Source: National Center for Health Statistics, National Ambulatory Medical Care Survey, 2012–2015. https://www.cdc.gov/nchs/ahcd/ahcd_questionnaires.htm.

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