

SUPPLEMENTARY TABLE 3. Estimated vaccination coverage with ≥1 HPV vaccine* among adolescents aged 13–17 years by HHS Region, state, selected local area, and territory — National Immunization Survey–Teen (NIS-Teen), United States, 2013–2017.

	NIS-TEEN 2013 (n = 18,948) % (95% CI) [§]	NIS-TEEN 2014 (n = 20,827) % (95% CI) [§]	NIS-TEEN 2015 (n = 21,875) % (95% CI) [§]	NIS-TEEN 2016 (n = 20,475) % (95% CI) [§]	NIS-TEEN 2017 (n = 20,949) % (95% CI) [§]	Most current 5-year annual average increase [†] % (95% CI) [§]
United States Overall	44.9 (43.5–46.2)	50.6 (49.3–52.0)	56.1 (54.9–57.4)	60.4 (59.2–61.6)	65.5 (64.3–66.7)	5.1 (4.6–5.5)
Region I	56.2 (52.9–59.4)	60.8 (57.4–64.1)	69.3 (65.9–72.5)	69.9 (66.7–72.9)	78.2 (75.4–80.8)	5.3 (3.4–7.3)
Connecticut	54.0 (47.5–60.3)	56.7 (50.3–62.9)	68.0 (62.1–73.4)	62.2 (55.8–68.2)	71.3 (64.9–76.9)	4.0 (–0.4–8.5)
Maine	50.7 (44.6–56.7)	59.8 (53.5–65.8)	65.9 (59.9–71.4)	70.0 (63.9–75.4)	75.8 (70.2–80.6)	6.0 (4.4–7.5)
Massachusetts	56.9 (50.9–62.7)	61.5 (55.3–67.4)	68.1 (61.6–74.0)	71.4 (65.7–76.5)	81.9 (76.9–85.9)	6.2 (4.1–8.2)
New Hampshire	54.2 (48.1–60.2)	63.3 (57.8–68.5)	71.9 (65.7–77.4)	69.9 (63.7–75.5)	74.2 (68.5–79.2)	4.5 (0.8–8.3)
Rhode Island	72.5 (66.2–78.0)	72.4 (66.7–77.4)	84.2 (79.9–87.7)	88.9 (84.7–92.1)	88.6 (83.3–92.4)	4.9 (0.8–8.9)
Vermont	50.4 (44.0–56.8)	56.8 (50.2–63.1)	67.4 (61.6–72.6)	70.3 (64.6–75.5)	78.7 (73.2–83.3)	7.0 (5.1–8.9)
Region II	45.8 (42.1–49.6)	50.1 (46.0–54.1)	60.8 (57.1–64.3)	67.2 (63.8–70.5)	67.6 (64.1–71.0)	6.0 (2.9–9.1)
New Jersey	38.1 (31.8–44.8)	41.6 (34.9–48.6)	59.7 (53.5–65.6)	58.5 (52.4–64.3)	65.8 (59.8–71.3)	7.1 (2.3–11.9)
New York	49.6 (45.1–54.1)	54.2 (49.2–59.2)	61.3 (56.8–65.6)	71.5 (67.3–75.4)	68.5 (64.0–72.7)	5.5 (1.7–9.4)
NY-City of New York	55.0 (48.2–61.5)	57.3 (50.1–64.1)	68.9 (62.9–74.3)	76.8 (70.8–81.9)	73.3 (66.9–78.9)	5.6 (0.8–10.4)
NY-Rest of State	46.2 (40.3–52.2)	52.3 (45.4–59.1)	56.4 (50.1–62.4)	68.1 (62.3–73.5)	65.5 (59.3–71.2)	5.5 (1.8–9.2)
Region III	44.8 (41.2–48.5)	53.3 (49.8–56.7)	57.0 (53.5–60.3)	61.2 (57.9–64.4)	70.3 (67.0–73.3)	5.9 (4.1–7.7)
Delaware	51.2 (44.9–57.4)	61.0 (54.2–67.4)	65.2 (59.4–70.7)	70.7 (64.9–75.8)	75.3 (69.3–80.5)	5.8 (4.1–7.4)
Dist. of Columbia	59.9 (49.4–69.6)	71.7 (64.6–77.8)	74.7 (68.9–79.8)	79.2 (73.5–84.0)	91.9 (87.6–94.8)	7.5 (4.0–10.9)
Maryland	40.6 (33.3–48.2)	52.3 (45.3–59.1)	60.3 (53.7–66.7)	64.5 (58.1–70.5)	69.2 (62.1–75.6)	6.8 (3.9–9.7)
Pennsylvania	51.0 (45.5–56.6)	56.9 (51.2–62.3)	59.0 (53.7–64.1)	64.4 (59.3–69.2)	67.3 (62.2–72.1)	4.0 (3.0–5.0)
PA-Philadelphia	67.1 (60.6–73.0)	71.5 (64.9–77.3)	79.4 (74.0–83.9)	80.7 (75.4–85.0)	84.9 (80.0–88.7)	4.3 (2.5–6.2)
PA-Rest of State	49.0 (42.8–55.2)	55.0 (48.7–61.1)	56.3 (50.4–62.0)	62.3 (56.6–67.6)	65.0 (59.2–70.4)	3.9 (2.7–5.2)
Virginia	38.3 (30.3–47.0)	47.5 (40.1–55.1)	50.4 (42.5–58.3)	53.6 (46.0–61.0)	75.6 (68.4–81.6)	8.5 (2.1–14.8)
West Virginia	38.6 (32.6–45.0)	50.2 (43.7–56.6)	53.5 (47.4–59.5)	54.2 (47.5–60.8)	60.9 (54.6–66.9)	4.9 (1.7–8.1)
Region IV	39.8 (37.0–42.7)	47.3 (44.5–50.1)	51.4 (48.6–54.1)	55.8 (53.1–58.5)	60.0 (57.3–62.6)	4.9 (3.7–6.0)
Alabama	36.0 (30.2–42.3)	40.9 (35.0–47.1)	48.4 (42.1–54.7)	51.7 (45.3–58.0)	58.0 (52.0–63.9)	5.5 (4.5–6.4)
Florida	38.0 (31.4–45.0)	48.9 (41.7–56.2)	53.7 (46.7–60.6)	55.9 (49.2–62.5)	59.8 (53.1–66.1)	5.1 (2.2–7.9)
Georgia	46.4 (38.7–54.3)	53.0 (46.3–59.6)	52.6 (46.3–58.9)	67.3 (60.9–73.2)	64.3 (57.5–70.6)	5.1 (0.2–9.9)
Kentucky	32.3 (26.4–39.0)	37.6 (31.3–44.3)	45.8 (39.7–52.0)	48.0 (41.7–54.4)	49.6 (43.5–55.6)	4.5 (2.0–6.9)
Mississippi	31.8 (25.9–38.3)	35.9 (29.9–42.4)	45.5 (39.5–51.5)	45.6 (39.4–52.0)	49.6 (43.4–55.9)	4.5 (2.0–7.1)
North Carolina	44.9 (38.5–51.5)	57.9 (51.5–64.0)	56.7 (50.5–62.7)	57.5 (51.0–63.8)	66.8 (60.4–72.6)	4.3 (0.0–8.6)
South Carolina	40.4 (33.5–47.7)	40.5 (34.2–47.2)	44.2 (38.1–50.5)	44.2 (37.4–51.3)	59.6 (52.7–66.0)	4.3 (–0.7–9.4)
Tennessee	38.0 (31.9–44.5)	38.9 (32.6–45.6)	48.7 (42.3–55.1)	55.3 (48.5–61.9)	56.1 (49.3–62.6)	5.3 (2.4–8.1)
Region V	41.6 (39.1–44.2)	50.5 (48.0–53.1)	54.4 (51.8–56.9)	58.4 (55.8–61.0)	65.5 (63.2–67.8)	5.6 (4.1–7.1)
Illinois	42.4 (37.2–47.8)	54.3 (49.5–59.0)	53.0 (48.5–57.4)	63.5 (58.6–68.1)	66.1 (61.5–70.4)	5.5 (2.1–9.0)
IL-City of Chicago	51.7 (43.3–60.1)	71.4 (64.5–77.5)	69.4 (63.0–75.1)	73.1 (63.2–81.2)	81.9 (73.9–87.8)	5.8 (–0.3–11.9)
IL-Rest of State	40.2 (34.1–46.6)	50.4 (44.8–56.0)	49.4 (44.2–54.6)	61.4 (55.8–66.6)	62.7 (57.4–67.7)	5.5 (2.0–9.1)
Indiana	35.7 (30.3–41.5)	41.9 (35.8–48.3)	48.4 (42.1–54.8)	45.2 (38.9–51.7)	59.3 (52.8–65.5)	5.1 (1.1–9.0)
Michigan	46.5 (40.1–53.0)	48.7 (42.0–55.4)	59.8 (53.7–65.6)	61.3 (54.2–67.9)	67.3 (61.1–73.0)	5.4 (3.0–7.8)
Minnesota	39.7 (33.9–45.9)	55.2 (48.2–62.1)	61.2 (54.9–67.1)	59.1 (53.0–65.0)	68.1 (61.9–73.7)	6.2 (1.2–11.2)
Ohio	39.4 (33.3–45.8)	48.6 (42.5–54.8)	52.2 (45.4–58.8)	56.2 (49.5–62.8)	64.1 (58.4–69.3)	5.7 (4.0–7.4)
Wisconsin	44.6 (38.3–51.1)	55.0 (48.2–61.6)	53.3 (47.3–59.2)	61.9 (55.5–67.9)	69.2 (63.0–74.8)	5.7 (2.6–8.8)
Region VI	43.9 (40.4–47.4)	45.4 (42.0–48.9)	52.1 (49.5–54.8)	52.0 (49.3–54.8)	59.7 (57.1–62.2)	3.9 (1.7–6.1)
Arkansas	30.1 (24.5–36.4)	44.7 (38.4–51.1)	53.6 (47.5–59.5)	54.4 (48.1–60.5)	61.1 (54.8–67.0)	7.3 (2.8–11.7)
Louisiana	42.7 (36.2–49.4)	48.9 (42.3–55.5)	54.8 (48.9–60.6)	60.5 (54.4–66.3)	69.1 (63.3–74.4)	6.5 (5.5–7.5)
New Mexico	49.5 (43.5–55.6)	50.7 (44.3–57.2)	60.4 (54.5–65.9)	60.5 (54.4–66.3)	66.9 (60.9–72.4)	4.4 (2.1–6.8)
Oklahoma	49.1 (43.5–54.7)	54.0 (47.6–60.3)	55.5 (48.8–62.0)	56.9 (49.5–63.9)	58.5 (52.1–64.6)	2.2 (1.0–3.5)
Texas	44.4 (39.5–49.4)	43.5 (38.7–48.3)	50.6 (47.0–54.1)	49.3 (45.6–53.0)	57.8 (54.3–61.2)	3.4 (0.3–6.5)
TX-Bexar County	42.4 (36.3–48.8)	41.7 (35.4–48.3)	48.2 (42.0–54.5)	53.4 (46.7–59.9)	62.9 (56.6–68.8)	5.3 (2.5–8.4)
TX-City of Houston	49.8 (42.5–57.1)	60.1 (53.1–66.7)	62.7 (55.5–69.4)	62.6 (53.6–70.9)	73.0 (63.9–80.4)	4.9 (1.2–8.3)
TX-Dallas County	NA	NA	NA	45.7 (38.5–53.1)	54.5 (46.9–62.0)	— [¶]
TX-El Paso County	NA	62.6 (55.1–69.6)	67.9 (62.7–72.6)	79.8 (73.6–84.9)	82.8 (77.2–87.2)	7.3 (1.9–12.6)
TX-Travis County	NA	NA	NA	NA	69.7 (63.3–75.4)	— [¶]
TX-Rest of State	44.1 (38.5–49.8)	41.4 (35.9–47.1)	48.6 (44.1–53.0)	46.8 (42.0–51.6)	54.5 (49.9–59.1)	2.7 (–0.5–5.9)
Region VII	37.2 (33.7–40.8)	40.2 (36.7–43.8)	52.3 (48.7–55.9)	55.3 (51.8–58.8)	61.5 (58.0–64.8)	6.4 (4.0–8.7)
Iowa	42.8 (36.8–49.0)	44.5 (37.8–51.4)	57.2 (51.0–63.1)	60.7 (54.8–66.3)	71.4 (65.6–76.5)	7.3 (4.5–10.1)
Kansas	32.5 (26.5–39.1)	35.5 (29.4–42.1)	43.2 (37.3–49.3)	51.8 (45.2–58.3)	52.4 (46.0–58.8)	5.6 (3.2–8.0)
Missouri	32.6 (26.3–39.5)	37.5 (31.3–44.1)	51.8 (44.7–58.8)	51.6 (45.0–58.1)	57.8 (51.3–64.0)	6.4 (3.0–9.9)
Nebraska	50.4 (44.0–56.8)	49.3 (42.7–55.9)	60.6 (54.9–66.1)	63.7 (57.2–69.8)	71.0 (64.8–76.5)	5.6 (2.6–8.5)
Region VIII	37.8 (34.5–41.3)	47.4 (44.1–50.8)	54.8 (51.4–58.2)	57.4 (53.6–61.0)	65.7 (62.4–68.8)	6.6 (4.6–8.6)
Colorado	45.9 (39.8–52.2)	51.4 (45.3–57.3)	64.2 (58.2–69.9)	63.5 (56.5–69.9)	72.1 (66.2–77.3)	6.5 (3.3–9.7)
Montana	34.1 (28.3–40.5)	44.9 (38.4–51.5)	50.4 (44.6–56.2)	55.3 (48.9–61.5)	65.5 (58.9–71.5)	7.4 (5.4–9.3)
North Dakota	45.8 (39.4–52.4)	49.0 (42.3–55.7)	66.3 (60.0–72.1)	67.6 (60.9–73.5)	72.5 (67.0–77.4)	7.0 (2.7–11.2)
South Dakota	37.6 (31.5–44.1)	47.3 (40.7–54.0)	46.0 (39.8–52.3)	55.9 (49.2–62.3)	63.2 (56.7–69.2)	6.0 (2.9–9.1)
Utah	26.0 (20.8–32.0)	43.4 (37.4–49.6)	44.2 (38.0–50.7)	49.7 (43.1–56.2)	58.8 (52.6–64.8)	7.3 (3.0–11.7)
Wyoming	35.2 (29.5–41.4)	39.5 (34.1–45.1)	42.2 (35.8–48.9)	43.4 (37.5–49.5)	46.9 (40.8–53.1)	2.7 (1.8–3.6)
Region IX	55.0 (49.7–60.1)	58.2 (52.8–63.4)	62.0 (56.4–67.2)	70.6 (65.6–75.2)	70.4 (65.4–75.0)	4.3 (2.1–6.5)
Arizona	52.9 (46.8–59.0)	49.3 (43.0–55.6)	59.7 (53.9–65.1)	63.1 (56.6–69.2)	65.0 (58.4–71.2)	3.8 (0.3–7.2)
California	56.6 (49.9–63.0)	60.5 (53.6–67.0)	62.5 (55.4–69.1)	72.6 (66.1–78.2)	71.9 (65.4–77.5)	4.3 (1.7–6.9)
Hawaii	45.2 (38.6–51.9)	58.4 (52.2–64.3)	66.8 (60.9–72.2)	64.8 (58.3–70.8)	69.4 (63.0–75.1)	5.3 (0.1–10.5)
Nevada	41.7 (35.6–48.1)	48.7 (42.5–54.9)	57.9 (51.5–64.1)	64.9 (58.5–70.8)	64.9 (58.3–70.9)	6.3 (3.2–9.3)
Region X	46.1 (42.2–50.0)	54.1 (50.2–58.0)	57.2 (53.6–60.8)	62.6 (58.8–66.3)	69.9 (66.3–73.3)	5.6 (4.3–7.0)
Alaska	38.9 (32.9–45.2)	43.1 (37.1–49.4)	49.1 (42.9–55.2)	61.1 (55.0–66.9)	64.5 (58.4–70.1)	6.9 (4.5–9.3)
Idaho	43.9 (36.8–51.2)	45.3 (38.6–52.3)	50.6 (44.2–56.9)	57.2 (50.9–63.3)	62.4 (55.7–68.6)	5.0 (3.3–6.6)
Oregon	49.5 (43.6–55.3)	50.5 (44.1–56.8)	64.1 (58.1–69.8)	61.7 (55.2–67.9)	71.2 (65.4–76.4)	5.5 (1.8–9.2)
Washington	45.6 (39.2–52.0)	59.6 (53.2–65.7)	56.1 (50.2–61.8)	64.8 (58.5–70.6)	71.9 (65.8–77.3)	5.8 (1.6–9.9)
Range**	(26.0–72.5)	(35.5–72.4)	(42.2–84.2)	(43.4–88.9)	(46. –91.9)	(2.2–8.5)
Territory						
Guam	44.6 (38.8–50.5)	NA	60.2 (54.5–65.7)	67.4 (62.4–72.1)	67.5 (61.4–73.0)	6.2 (0.8–11.5)

Abbreviations: CI = confidence interval; HHS = U.S. Department of Health and Human Services; HPV = human papillomavirus; NA = not available (data not collected for that survey year).

* HPV vaccine, nine-valent (9vHPV), quadrivalent (4vHPV), or bivalent (2vHPV) in females and males combined.

[†] The most current 5-year annual average increase was computed by using weighted linear regression for each awardee, with weights inversely proportional to the estimated variance of each estimate. Estimates with confidence intervals that did not include zero were considered statistically significantly different from zero.

[§] Estimates with 95% confidence intervals >20 might be unreliable.

[¶] Estimates for jurisdictions have been suppressed if data for either 2013 or 2017 are not available or if data are available for fewer than three of the five years.

^{**} The calculation for the range was limited to the 50 states and the District of Columbia.