Approximately 42,700 HPV-associated cancers occurred in the United States each year during 2011–2015, including >11,000 cervical cancers, the most common HPV-associated cancer among women, and >18,000 oropharyngeal cancers, which are the most common among men. However, it is estimated that 90% of cervical cancers and approximately 70% of oropharyngeal cancers could be prevented with HPV vaccine. See the second page of this report for data on HPV–associated cancers in your state or city.

Examining the percentage of HPV vaccine doses distributed while accounting for your jurisdiction’s estimated 11-year-old* population provides a yardstick for measuring progress toward vaccinating this cohort. Nationally, HPV vaccine has been distributed as follows:

- 20% in the first quarter
- 20% in the second quarter
- 35% in the third quarter
- 25% in the fourth quarter

We used these percentages to measure progress toward vaccinating 11-year-olds for each quarter of 2018. Review the graph below to see how your jurisdiction did last year.

Based on an estimated total of 92,868† 11-year-olds in Arizona, your jurisdiction ordered 111% of the estimated total annual doses of HPV vaccine needed to vaccinate all 11-year-olds. If all the ordered doses were used for 11-year-olds, Arizona ordered a sufficient amount of vaccine for this age group in 2018.

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*The 11-year-old population estimate was obtained from the U.S. Census:
https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=PEP_2015_PEPSYASEX&prodType=table
†These data represent an estimate of all HPV vaccine doses distributed in Arizona. The 9-valent HPV vaccine is currently the only HPV vaccine available in the United States.
‡Estimated percentages of vaccine orders are based on the 11-year-old population estimate and national HPV vaccine ordering patterns over the last several years.

Have questions? Contact us at hpvquarterlyreport@cdc.gov.
In Arizona, an estimated total of 699 HPV-associated cancers were reported each year during 2011–2015. Of these, around 78% (545/699) were attributable to HPV and, of these, around 93% (509/545) could have been prevented with the 9-valent HPV vaccine, including 215 oropharyngeal and 160 cervical cancers. Of note, the majority of these oropharyngeal cancers occurred among males.

Nationally, an estimated total of 42,700 HPV-associated cancers occurred in the United States each year during 2011–2015. Of these, around 79% (33,700/42,700) were attributable to HPV and, of these, around 93% (31,200/33,700) could have been prevented by the 9-valent HPV vaccine, including 27,100 caused by HPV types 16 and 18 and 4,100 caused by HPV types 31/33/45/52/58 (data not shown in chart above).1

HPV-associated cancers are defined as invasive cancers at anatomic sites with cell types in which HPV DNA is frequently found. These anatomic sites include the cervix, vagina, vulva, penis, anus, rectum, and oropharynx (back of the throat, including the base of the tongue and tonsils). These cell types include carcinomas of the cervix and squamous cell carcinomas of the vagina, vulva, penis, anus (including rectal squamous cell carcinomas), and oropharynx.

HPV-attributable cancers refers to the proportion of HPV-associated cancers probably caused by HPV. These cancers are estimated by multiplying the number of HPV-associated cancers by the percentage attributable to HPV.2 Based on a CDC study3 that used population-based data and determined HPV types in cancer tissue, about 90% of cervical cancers and 70% of oropharyngeal cancers are attributable to HPV.

References

Resources