

2017 National Immunization Survey-Teen Key Points

Embargoed until August 23rd at 1 pm ET

SOCO: Parents are choosing to protect their child from HPV cancers by ensuring their child is up to date on the HPV vaccination series.

Calls to Action

- **Parents:** Talk to your preteen's doctor or nurse about HPV vaccine to protect against cancers caused by HPV.
- **Clinicians:** Recommend HPV vaccine the same way and same day you recommend other vaccines for your adolescent patients.
- **Rural Clinicians:** Recommend, refer, and record.
 - **Recommend** HPV and meningococcal conjugate vaccine the same way and same day you recommend other vaccines for your adolescent patients.
 - **Refer** your patients to other vaccine providers, if you aren't able to stock HPV and/or meningococcal conjugate vaccines in your practice.
 - **Record** the vaccines your patients receive, in your practice or through other vaccine providers.
- **Clinicians and parents** should also ensure teens get a booster dose of the meningococcal conjugate vaccine at age 16.

Main Messages

- **CDC recommends HPV vaccine for all preteen boys and girls to protect against cancers caused by HPV. Over the past five years, HPV vaccination has become the norm as the number of adolescents who are up to date – meaning they've started and completed the series – continues to grow.**
 - Roughly half (49%) of adolescents received all the recommended doses to complete the series, an increase of 5 percentage points compared to 2016.
 - 66% of adolescents aged 13-17 years started the HPV vaccine series (i.e., received one or more doses of HPV vaccine), an increase of 5 percentage points compared to 2016.
 - On average, the percentage of adolescents who started the HPV vaccine series increased by 5 percentage points each year over the past five years (2013-2017).
- **We are also encouraged to see an increasing number of adolescents starting and completing the HPV vaccine series on time.**
 - 56% of adolescents born in 2004 started the HPV vaccine series by age 13, an increase of 6 percentage points compared to adolescents born in 2003.
 - 30% of adolescents born in 2004 completed the HPV vaccine series by age 13, an increase of 4 percentage points compared to adolescents born in 2003.
- **We still have a long way to go to ensure adolescents get all the recommended doses of HPV and meningococcal conjugate vaccines for best protection, highlighting the need to follow up with adolescents who are due for additional doses.**
 - 51% of adolescents have not received all the recommended doses of HPV vaccine.
 - 56% of adolescents have not received both doses of meningococcal conjugate vaccine.

- **Fewer teens in rural areas are getting the HPV and meningococcal conjugate vaccines compared to teens in urban areas, highlighting the need for focused efforts to follow up with adolescents in rural areas who are due for the vaccines.**
 - The percent of adolescents who received the first dose of the HPV vaccine was 11 percentage points lower in rural areas compared to urban areas.
 - The percent of adolescents who received all the recommended doses of the HPV vaccine was 10 percentage points lower in rural areas compared to urban areas.
 - The percent of adolescents receiving the first dose of the meningococcal conjugate vaccine was 7 percentage points lower in rural areas compared to urban areas.
 - The percent of adolescents receiving the second dose of the meningococcal conjugate vaccine was 12 percentage points lower in rural areas compared to urban areas.
 - Adolescents living in mostly rural areas had similar vaccination coverage with Tdap compared to adolescents living in mostly urban areas.
- **HPV vaccination provides safe, effective, and long-lasting protection against cancers caused by HPV. New estimates show HPV vaccination could prevent 31,200 cancers every year.**
 - Another report released in today's MMWR found that oropharyngeal cancer (cancer of the back of the throat) is the most common HPV-associated cancer in the United States. Between 1999 and 2015, rates of oropharyngeal cancer increased in both men and women, but more in men.
 - The report also found that in 2015, roughly 43,000 men and women developed an HPV-associated cancer (i.e., cancer in the part of the body where HPV is often found).
 - Additional analyses estimate that HPV causes 79% (33,700/42,671) of these cancers every year.
 - Fortunately, HPV vaccination could prevent 90% of cancers caused by HPV from ever developing. That equals prevention of roughly 31,200 cancers every year.
 - Since the HPV vaccine was introduced over 10 years ago, HPV infections and cervical precancers (i.e., abnormal cells on the cervix that can lead to cancer) have decreased significantly.
 - Because of the long interval between HPV infection and the development of cancer, it will likely take decades to assess the impact of vaccination on HPV-associated cancers.

Survey Methodology and Background

- The National Immunization Survey on teen vaccination coverage rates (also called NIS-Teen) provides a "report card" to let us know how well we are doing in protecting our nation's teens against vaccine-preventable diseases.
- NIS-Teen coverage data are based on vaccination history information reported by health care providers.
- The NIS-Teen is a random-digit-dialed survey of parents or guardians of teens 13-17 years old and in 2017 included data for more than 20,000 teens. The telephone survey is followed by a mailed questionnaire to vaccination providers to obtain the teen's vaccination history.
- The NIS-Teen includes coverage estimates for vaccines that are routinely recommended for adolescents. These vaccines include Tdap to protect against tetanus, diphtheria, and pertussis (whooping cough), quadrivalent meningococcal conjugate vaccine (MenACWY) to protect against meningococcal disease, and human papillomavirus (HPV) vaccine to protect against cancer-causing HPV infections.
- There is ongoing work to assess how much bias, or systematic error, there may be in NIS-Teen estimates; the latest results, from 2013, indicate estimates of Tdap, ≥ 1 dose of MenACWY, and ≥ 1 dose of HPV vaccine may be 1-3 percentage points lower than the true estimates, after accounting for incompleteness of the sample frame, nonresponse bias, and under-reporting of vaccinations.

- NIS-Teen estimates are based on a sample of households identified from both landline and cell phone sampling frames. Before 2011, only landline sampling frames were used. Including cell phones helps maintain a nationally representative sample as an increasing number of families have moved to using only cell phones and no longer have landline telephones. Starting in 2018, the landline telephone sample was dropped.
 - The overall household response rate was 25.7% (51.5% for landlines and 23.5% for cell phones).