



## Adult Immunization Coverage in New Jersey

Vaccination is one of the most convenient and safest preventive care measures available. Vaccines are needed across the lifespan, including through adulthood. As people age, immunity from some childhood vaccines can wear off. In addition, risk may increase for certain diseases. Vaccines may be needed based on age, health conditions, job, lifestyle, or travel habits. It is especially important for patients with chronic health conditions to be up-to-date on recommended vaccinations as they are at increased risk for complications from certain vaccine-preventable diseases.<sup>1</sup>

This data brief provides current immunization estimates for adults 18 years and older in New Jersey and the United States. State-level data for influenza, pneumococcal, shingles, and tetanus-containing vaccines are included in this report. In the case that state-level vaccination data were not available, national data were presented. The year of the most recent data varies based on which years the vaccine-specific survey questions were included in the questionnaire.

Presented below is a summary graph of New Jersey adult immunization rates as compared to national data. Subsequent pages of this data brief present more detailed views of immunization estimates for specific vaccines. Healthy People objectives\* are included, where applicable. The Healthy People objectives and targets are national measurable 10-year objectives for improving health and well-being. Some targets are listed for the 2020 objectives, whereas others present the 2030 targets.

## Key Findings

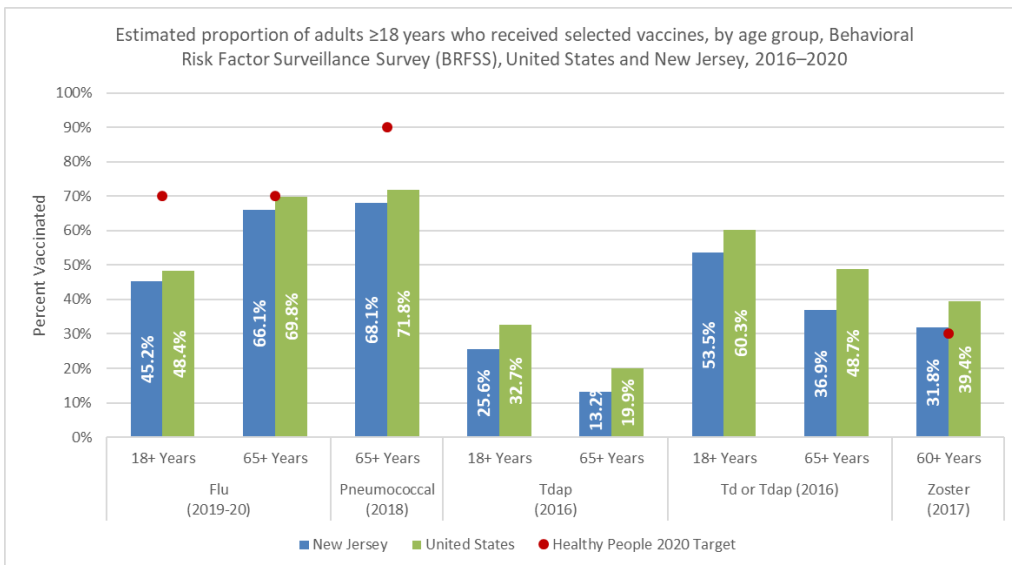
- New Jersey’s adult vaccination rates are below or similar to national averages for influenza, pneumococcal, zoster, and tetanus-containing vaccines.
- Adult vaccination rates have consistently remained below Healthy People 2020\* targets, both nationally as well as in New Jersey, indicating a need for additional emphasis on the adult vaccine recommendations.

## Data Notes

State-level data were collected through the New Jersey Behavioral Risk Factor Survey (NJBFRS). The NJBFRS collects uniform, state-specific data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases in the adult population. The survey is conducted using scientific telephone survey methods. Excluded are adults living in group quarters such as college dormitories, nursing homes, military barracks, and prisons.

## Limitations

- Due to sample size constraints, data are not available for small geographic areas.
- Not all recommended adult vaccines are included in the survey questionnaire, and not all are included in each survey year. This can result in gaps of a few years between survey data, if reported at all.



**Data Source:** Behavioral Risk Factor Surveillance System (BRFSS): National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (CDC).

Interactive data portals can be accessed via CDC’s AdultVaxView Interactive! ([www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/data-reports/general-population/index.html](http://www.cdc.gov/vaccines/imz-managers/coverage/adultvaxview/data-reports/general-population/index.html)) and CDC’s FluVaxView Interactive! ([www.cdc.gov/flu/fluvoxview/interactive.htm](http://www.cdc.gov/flu/fluvoxview/interactive.htm)) webpages.

\*Additional details on the Healthy People objectives and targets can be found at: [www.healthypeople.gov](http://www.healthypeople.gov).

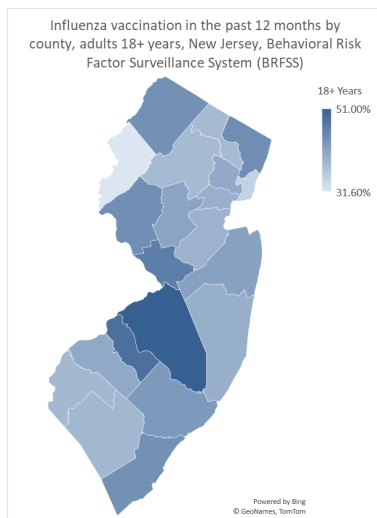


# NEW JERSEY DEPARTMENT OF HEALTH DATA BRIEF: ADULT VACCINATION

## Influenza Vaccination

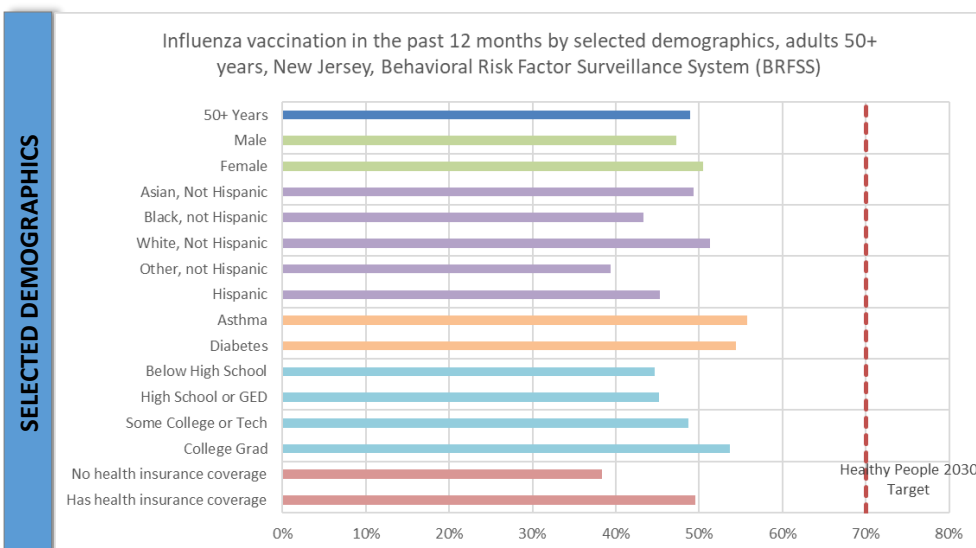
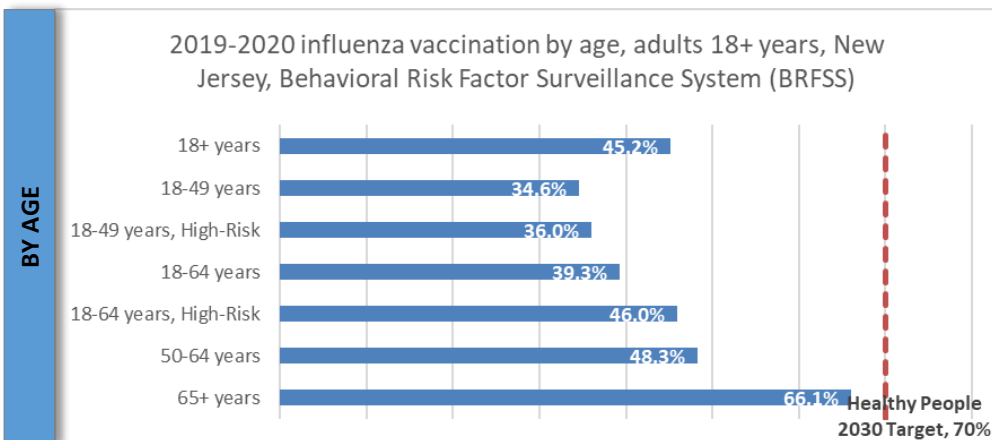
An annual influenza vaccine is recommended for everyone six months of age and older. Vaccination is particularly important for people who are at high risk of serious complications from influenza. High risk persons can include those 65 years and older, those with certain chronic medical conditions (such as asthma, diabetes, or heart disease), pregnant women and children under 5 years.<sup>2</sup>

The map to the right presents flu vaccination data for each county in New Jersey, the darker colors indicating higher vaccination rates. The graphs below present influenza vaccination estimates for New Jersey by age, high-risk status, and other demographic characteristics.



## Key Findings

- Less than half (45.2%) of New Jersey's adults ages 18 years and older received a flu vaccination in the past 12 months.
- Influenza immunization rates for adults 18 years and older when viewed by county are lowest in Warren County (31.6%) and highest in Burlington County (51.0%).
- Flu vaccination rates vary by age group. Younger adults, ages 18-49 years, had lower estimated vaccination (34.6%) as compared to adults 65 years and older (66.1%). These rates are below the Healthy People 2030 target of 70% for all age groups.
- Adults who fall into high-risk categories had slightly increased vaccination coverage (36.0% vs. 34.6% for 18-49 years and 46.0% vs. 39.3% for 18-64 years) as compared to those of the same age who were not identified as high risk.
- Variances in flu vaccination occur by race/ethnicity as well as insurance coverage and educational attainment.



### Targets

**Healthy People 2030 Objective<sup>3</sup>**  
 [IID-09] Increase the proportion of persons who are vaccinated annually against seasonal influenza  
 U.S. Target: 70%

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**Healthy New Jersey 2020 Objective**  
 Increase adults 65+ who receive seasonal flu vaccination  
 State Target: 67.4%

Data Source: New Jersey Behavioral Risk Factor Survey (NJBRFS). New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online].



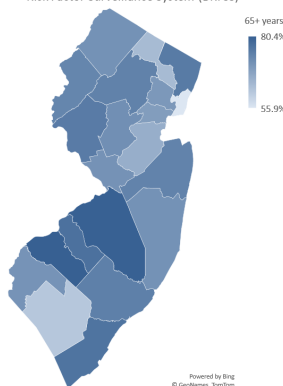
# NEW JERSEY DEPARTMENT OF HEALTH DATA BRIEF: ADULT VACCINATION

## Pneumococcal Vaccination

Pneumococcal vaccination is currently recommended for all adults ages 65 years and older. Those who have certain risk factors or health conditions may be recommended to receive additional vaccination.

The data below were obtained from the New Jersey Behavioral Risk Factor Survey and the national Behavioral Risk Factor Surveillance Survey. The question on pneumococcal vaccination asked, “A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person’s lifetime and is different from the flu shot. Have you ever had a pneumonia shot?” Trend data are presented by age and increased risk. Additional data is presented by selected demographics. The map to the right illustrates state vaccination data by county.

Adults 65+ years who have ever had pneumococcal vaccination by county, 2017, New Jersey, Behavioral Risk Factor Surveillance System (BRFSS)

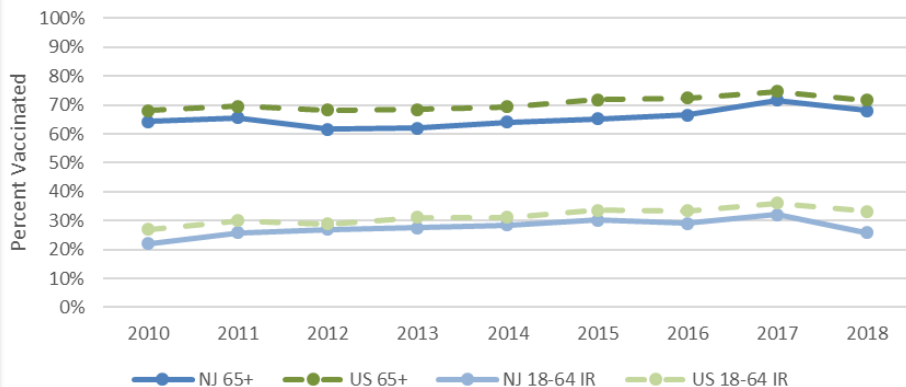


## Key Findings

- Pneumococcal vaccination in New Jersey has remained similar to the national averages for adults over 65 years and adults 18-64 years at increased risk between 2010 and 2018.
- Variances in flu vaccination exist by race/ethnicity as well as by educational attainment.
- Pneumococcal immunization rates when viewed by county are lowest in Hudson (55.9%) and Cumberland (61.6%) for adults 65 years and older. Estimates are highest in Gloucester (80.4%) and Burlington (80.2%).

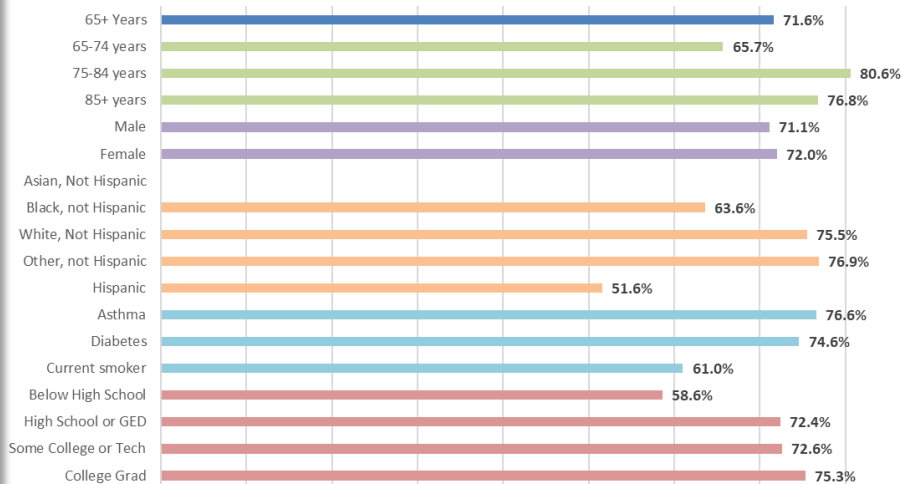
### TREND DATA

Estimated pneumococcal vaccination coverage for adults by age and increased risk, United States and New Jersey, BRFSS, 2010-2018



### SELECTED DEMOGRAPHICS

Adults 65+ years who have ever had pneumococcal vaccination by selected demographics, 2017, New Jersey, New Jersey Behavioral Risk Factor Survey (NJBRFS)



## Targets

### Healthy People 2030 Objective<sup>3</sup>

[IID-13.1] Increase the percentage of noninstitutionalized adults aged 65 years and older who are vaccinated against pneumococcal disease

U.S. Target: 90%

### Healthy People 2020 Objective

[IID-13.2] Increase the percentage of noninstitutionalized high-risk adults aged 18 to 64 years who are vaccinated against pneumococcal disease

U.S. Target: 60%

### Healthy New Jersey 2020 Objective

Increase adults 65+ who receive pneumonia vaccination ever

State Target: 72.2%

Data Source: New Jersey Behavioral Risk Factor Survey (NJBRFS). New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online].

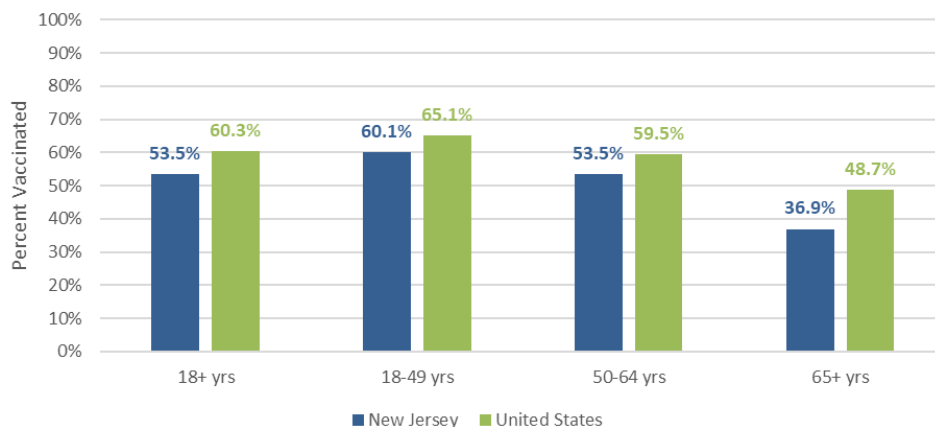


# NEW JERSEY DEPARTMENT OF HEALTH DATA BRIEF: ADULT VACCINATION

## Tdap Vaccination

At least one tetanus-containing vaccination is recommended for adults every 10 years. Adults can receive either the Td or the Tdap vaccine. The survey data presented includes responses to the question “have you received a tetanus shot in the past 10 years?” Tetanus questions are included in the BRFSS every three years, so limited data is available.

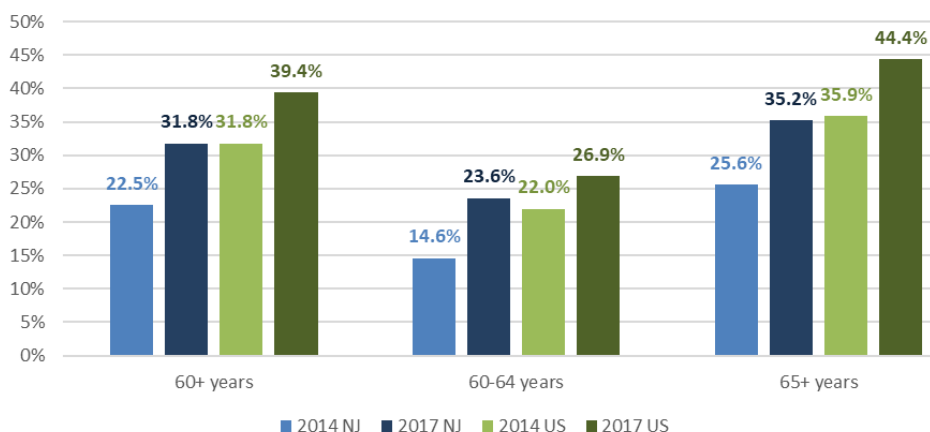
Estimated tetanus (Td or Tdap) vaccination coverage, by age group, New Jersey and United States, Behavioral Risk Factor Surveillance Survey (BRFSS), 2016



## Zoster Vaccination

Shingles vaccination is the only way to protect against shingles and postherpetic neuralgia (PHN). CDC currently recommends that healthy adults 50 years and older complete the two dose series of the shingles vaccine. In 2017, the zoster vaccine recommendation was changed to include adults 50 years and older whereas it was previously recommended for adults 65 years and older. The data shown here only includes the 65 and older age group. In addition, the recommended vaccine is now a 2-dose series as opposed to a one dose vaccine. The data collected through the Behavioral Risk Factor Surveillance System (BRFSS) presents data on whether the respondent has ever received a shingles or zoster vaccine. Series completion data is not available at this time. Zoster questions are included in the BRFSS every three years, so limited data is available.

Estimated zoster vaccination coverage by age group, New Jersey and United States, Behavioral Risk Factor Surveillance Survey (BRFSS), 2014 and 2017



## Key Findings

- Just over half (53.5%) of adults in New Jersey received a tetanus-containing vaccine in the past 10 years.
- Tetanus vaccination in New Jersey was similar to, or below the national averages for adults over 18 years in 2016.
- Td or Tdap vaccination for adults 65 years and older was lower in New Jersey (36.9%) as compared to rates for the United States (48.7%).
- Less than a third (22.5%) of adults 60 years and older in New Jersey received a zoster vaccine.
- Zoster vaccination in New Jersey was below the national averages and below the Healthy People 2020 target for adults 60 years and older in 2014 and 2017.
- Zoster vaccination estimates have increased between 2014 and 2017 for all age groups in New Jersey. Those 60 years and older increased from 22.5% to 31.8%. The 60-64 year age group increased from 14.6% to 22.0%. The 65 and older age group increased from 25.6% to 35.9%.

### Target

#### Healthy People 2020 Objective

[IID-14] Increase the percentage of adults who are vaccinated against zoster (shingles)

U.S. Target: 30%

Data Source: New Jersey Behavioral Risk Factor Survey (NJBRFS). New Jersey Department of Health, Center for Health Statistics, New Jersey State Health Assessment Data (NJSHAD) [online].



# NEW JERSEY DEPARTMENT OF HEALTH DATA BRIEF: ADULT VACCINATION

## Maternal Immunizations

There are two recommended vaccines during pregnancy, the influenza and pertussis vaccines. All pregnant women are recommended to receive a flu vaccine and a Tdap vaccine during *each* pregnancy. In 2019-20, the CDC reported that nationally, 61.2% of pregnant women received influenza vaccination, 56.6% received Tdap during pregnancy, and 40.3% received both vaccines.<sup>4</sup>

State-level flu vaccination data was collected through the New Jersey Pregnancy Risk Assessment Monitoring System (PRAMS).

National data are presented for Tdap vaccination from a CDC internet panel survey as state-level estimates were not available.

## Key Findings

- Only about 1 out of 2 women in New Jersey received an influenza vaccination during pregnancy.
- Influenza vaccination rates during pregnancy were lower among Black women (32.5%) as compared to other race/ethnicities.
- National Tdap vaccination estimates vary by age, race, educational attainment, and marital status. Only 35.8% of Hispanic women and 38.8% of Black women had received a Tdap vaccination as compared to 65.5% of White women and 54.0% of those of other race/ethnicities.

## Data Notes

State-level data were collected through the New Jersey Pregnancy Risk Assessment Monitoring System (PRAMS). New Jersey PRAMS is a joint research project of the NJDOH and the CDC. Information from PRAMS is used to help plan better health programs for New Jersey mothers and infants and impact maternal and child health policy and practice.

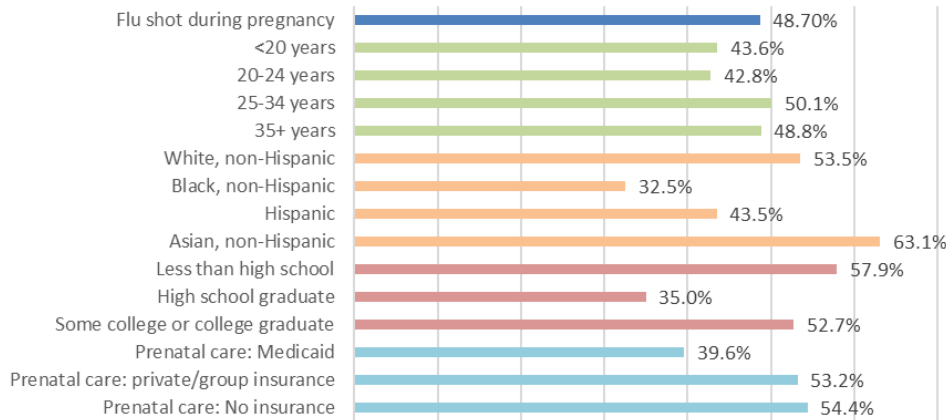
## Target

### Healthy People 2020 Objective

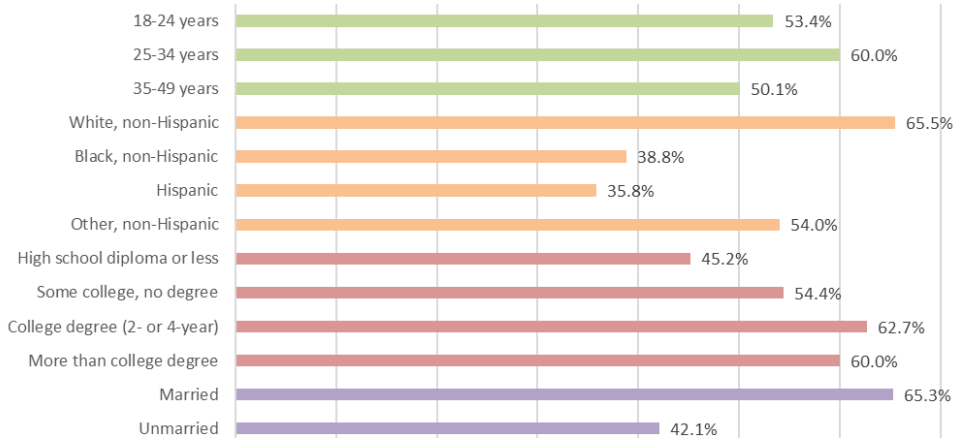
[IID-12.14] Increase the percentage of pregnant women who are vaccinated against seasonal influenza

U.S. Target: 80%

Influenza vaccination coverage among pregnant women, by selected characteristics — NJ PRAMS, New Jersey, 2018



Tdap vaccination coverage among pregnant women, by selected characteristics — Internet panel survey, United States, April 2020



### Data Sources:

New Jersey Pregnancy Risk Assessment Monitoring System (PRAMS), Maternal and Child Health Epidemiology, New Jersey Department of Health, New Jersey State Health Assessment Data (NJSHAD) [online].

Razzaghi H, Kahn KE, Black CL, et al. Influenza and Tdap Vaccination Coverage Among Pregnant Women — United States, April 2020. MMWR Morb Mortal Wkly Rep 2020;69:1391–1397. DOI: <http://dx.doi.org/10.15585/mmwr.mm6939a2>.



# NEW JERSEY DEPARTMENT OF HEALTH DATA BRIEF: ADULT VACCINATION

## HPV Vaccination

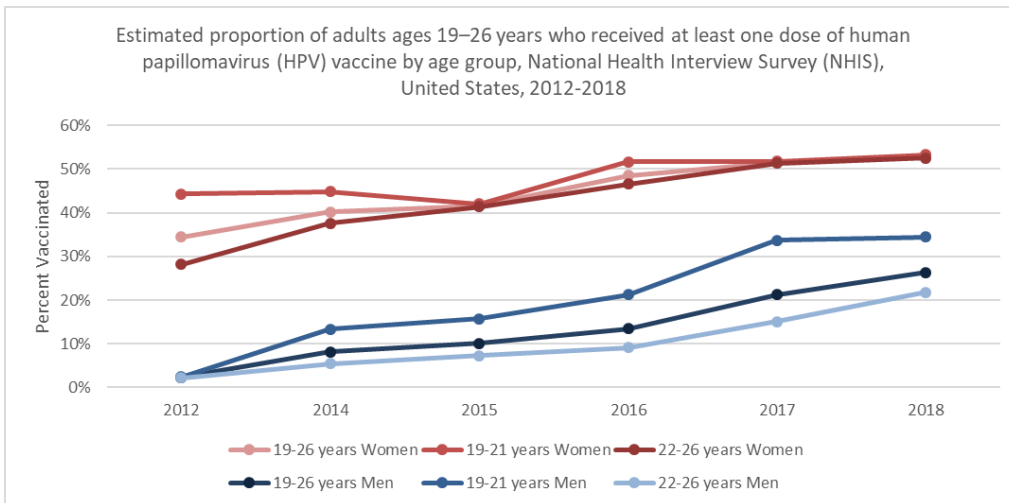
Human papillomavirus (HPV) vaccination can protect against HPV infection and associated diseases including genital warts, precancerous lesions, anogenital cancers, and oropharyngeal cancers. The vaccine series is routinely recommended for adolescents ages 11-12 years. The series consists of either two or three doses, depending on the age of initiation or immunocompromised status.

Adults through age 26 years are also eligible for the HPV vaccine if they did not previously initiate or complete the series. Some adults ages 27 through 45 years may decide to get the HPV vaccine based on discussion with their clinician, if they did not get adequately vaccinated when they were younger.<sup>5</sup>

Data below present national immunization estimates for adults ages 19-26 years as state-level data was not available. This data was collected through the National Health Interview Survey (NHIS).

## Key Findings

- Females (52.8%) were more likely than men (26.3%) to have received at least one HPV vaccine dose among adults ages 19-26 years in 2018. For ages 19-26 years. Catch-up vaccination has been recommended since 2006 for females through age 26 years, and since 2011 for males through age 21 years and certain special populations through age 26 years.<sup>5</sup>
- HPV vaccine recommendations were revised in 2019 to delineate recommendations for adults ages 27 through 45 who were not previously vaccinated. The ACIP recommended shared clinical decision-making regarding potential HPV vaccination for these persons.<sup>5</sup>
- Adults in the United States receiving at least one HPV vaccination dose has increased from 34.5% among females and 2.3% among males in 2012 to 52.8% for females and 26.3% among males in 2018.



**Data Source:** Lu P, Hung M, Srivastav A, et al. Surveillance of Vaccination Coverage Among Adult Populations — United States, 2018. *MMWR Surveill Summ* 2021;70(No. SS-3):1–26. DOI: <http://dx.doi.org/10.15585/mmwr.ss7003a1external icon>.

## New Jersey Immunization Information System (NJiIS)

Immunization registries are confidential, population-based, computerized information systems that collect and consolidate vaccination data within a geographic area. In New Jersey, the NJiIS is the established statewide immunization information system serving as the official repository of immunizations administered to its residents.

Some of the benefits of immunization registries allow users to:

- Obtain a complete and accurate immunization history for new or continuing patients
- Produce/obtain immunization records
- Manage vaccine inventories
- Help interpret the complex immunization schedule, including new vaccines and any changes in the schedule
- Provide immunization coverage data for healthcare provider facilities



Visit [njiis.nj.gov](http://njiis.nj.gov) to learn more about New Jersey's immunization registry.

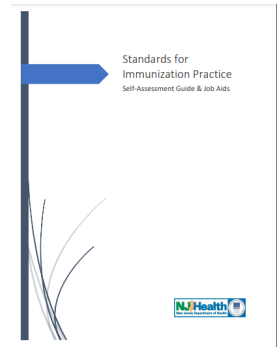


## NEW JERSEY DEPARTMENT OF HEALTH DATA BRIEF: ADULT VACCINATION

### Immunization Standards

All healthcare providers who interact with adult patients should follow the Standards for Adult Immunization Practice.<sup>6</sup> The Standards advise that providers assess adults' vaccination status at every clinical encounter, strongly recommend needed vaccines, either offer needed vaccines or refer their patients to another provider who can administer the recommended vaccine, and document vaccinations received by their patients in an immunization information system (IIS).

The New Jersey Department of Health, Vaccine Preventable Disease Program developed an immunization standards guide to assist in routine implementation of the standards. This guide provides a self-assessment job aid, instructions, and tips on how to improve upon self-identified gaps. The guide can be accessed at: [www.nj.gov/health/cd/documents/vpdp/imm\\_standards\\_guide.pdf](http://www.nj.gov/health/cd/documents/vpdp/imm_standards_guide.pdf).



### RECOMMENDATIONS

- Healthcare professionals should use a **strong recommendation** when patients are due for vaccines.
  - Clinicians are the most trusted source of vaccine information for parents and adult patients.
  - A strong recommendation from a healthcare professional is the best predictor of whether parents decide to vaccinate their child as well as whether or not adults decide to get vaccinated themselves.
- Healthcare providers should use **evidence-based strategies**<sup>7</sup> to increase adult immunizations. One of the main reasons adult vaccination rates remain low is due to lack of awareness surrounding which vaccines are needed and when.
  - Provide educational materials in waiting rooms. Materials should be in plain-language and should meet patients' social, cultural and linguistic needs.
  - Assess patient immunization records at every visit and provide education on the importance of vaccination. Plan to continue the conversation if a patient is hesitant.
  - Use NJIIS to conduct reminder/recall reports to view patients who are due for vaccination, or have missed vaccinations. Outreach to those patients to set up follow-up appointments.
  - Implement standing orders to allow other members of the healthcare team to administer immunizations.
  - Consider hiring or working with a partner organization to provide community outreach and education to diverse populations.
- **Decrease barriers** to immunizations. Patients should be aware that most health insurance plans cover the cost of recommended vaccines. If you participate in the Adult 317 Program<sup>8</sup>, use these vaccines to immunize uninsured or underinsured populations, or refer to locations where low-cost vaccinations are offered.

### REFERENCES

- 1 CDC. Immunization schedules for healthcare professionals: immunization for adults. Available at: [www.cdc.gov/vaccines/schedules/hcp/adult.html](http://www.cdc.gov/vaccines/schedules/hcp/adult.html).
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- 4 Razzaghi H, Kahn KE, Black CL, et al. Influenza and Tdap Vaccination Coverage Among Pregnant Women — United States, April 2020. MMWR Morb Mortal Wkly Rep 2020;69:1391–1397. DOI: <http://dx.doi.org/10.15585/mmwr.mm6939a2>.
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- 6 CDC. Standards for Adult Immunization Practice. Available at: [www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html](http://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html).
- 7 CDC. Strategies for Increasing Adult Vaccination Rates. Available at: [www.cdc.gov/vaccines/hcp/adults/for-practice/increasing-vacc-rates.html](http://www.cdc.gov/vaccines/hcp/adults/for-practice/increasing-vacc-rates.html).
- 8 NJDOH. New Jersey Vaccines for Children Brochure. Available at: <https://njiis.nj.gov/docs/VFCBrochure.pdf>.