

Raise the Rate...

...Let's Vaccinate!



Raise the Rate – Let's Vaccinate!

Adult Immunizations in Wisconsin
Current Status and Strategies to Improve Immunization Rates

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Acknowledgement

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Adult Immunization Resource Hub

- Developed as part of ACP's *I Raise the Rates* initiative.
- Provides updated clinical information, patient education materials, quality improvement guidance and much more.
- For more information, visit: www.acponline.org/ai

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ACP Advance QI Curriculum

- Learn core QI skills that empower you to implement practice-changing initiatives to increase adult immunization rates in your practice.
- Additional ACP Advance offerings include a physician-led coaching service and chronic care resources.
- To learn more, visit: www.acponline.org/acpadvance

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Disclosures/COI

- Member: Wisconsin Council For Immunization Practices
- Governor, Wisconsin Chapter of the ACP
- Member, AMA Council on Science and Public Health
- Past President, Wisconsin Medical Society

Objectives

- Understand current Advisory Council for Immunization Practices (ACIP) recommendations for adults
- Recognize and implement the Standards for Adult Immunization Practice
- Identify barriers contributing to current gaps between existing vaccine recommendations and vaccine coverage
- Strategies to overcome these barriers and bridge the gaps

An Aging Population

49.2 million Americans (15.2% of the U.S. population) are 65 years or older.

11,000 seniors become eligible for Medicare daily in the U.S.

1.5 million people live in nursing homes (1.2 million) and assisted living facilities (300,000)

Burden of Disease Among U.S. Adults for Selected Diseases with Vaccines Available

Herpes Zoster (shingles)

About 1 million cases of zoster annually in the U.S.

Invasive Pneumococcal Disease (IPD)

- 900,00 annual cases - 90% in adults, and 3,700 total deaths
- 90% of IPD cases and nearly all IPD deaths among adults

Burden of Disease Among U.S. Adults for Selected Diseases with Vaccines Available

Pertussis (also known as whooping cough)

- 13,500 in 2018 (18,00 in 2017; 28,000 in 2013/2014)
- 3,000 among adults (9,000 in 2014)

Hepatitis B

- 3,218 acute cases reported in 2016
- However, CDC estimates 20,900 acute cases
- 850,000 chronically infected individuals

Vaccine-preventable Diseases in Adults

- Kill 60,000 adults per year in U.S.
- Influenza and pneumonia combined are the 8th leading cause of death in U.S.
- 90% of those deaths are Medicare age

Vaccine-preventable Morbidity

Hospitalization

Medical Complications

Quality of Life
(e.g., post-herpetic neuralgia)

Missed Work/Productivity

My Goal today

Let's Discuss...

- Vaccines recommended for adults (age- and risk-indicated)
- Statewide vaccination rates for adults
- Adult immunization standards
- Implementing the standards
- Barriers to implementation

Advisory Committee on Immunization Practices (ACIP) Recommendations

Persons > 65 years of age should receive:

- Annual influenza vaccination
- Two pneumococcal vaccines in series:
 - Pneumococcal conjugate 13 valent (PCV13)
 - Followed 6-12 months later by pneumococcal polysaccharide 23 valent (PPSV23) vaccine
- Herpes zoster vaccination at age 50 or older
 - Two doses separated by 2-6 months
- Tetanus (Td or Tdap) every 10 years

Adult Immunization Schedule

Healthy People 2020 Goals for Medicare Age

- Influenza immunizations: 90%
- Pneumococcal immunizations: 90%
- Herpes zoster immunizations: 30%

National Health Interview Survey: Medicare Beneficiaries

- Influenza immunization: 70.4% (goal: 90%) – National Immunization Survey-Flu; 2016
- Pneumococcal immunization: 66.9% (goal: 90%) – National Health Interview Survey (NHIS) 2016
- Shingles immunization: 37.4%; (goal: 30%) – NHIS 2016

Tdap/Td Recommendations

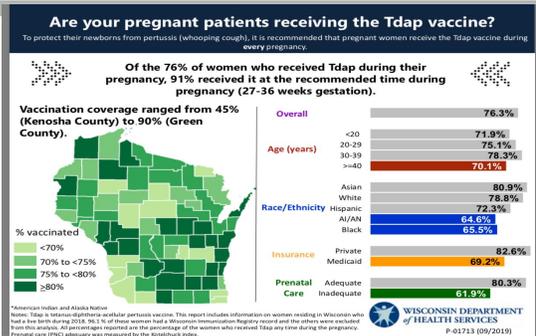
- All adults who have not previously received Tdap should receive one dose
 - Booster dose with Td every 10 years thereafter.
- Adults aged ≥65 years : Do not miss an opportunity to vaccinate persons aged 65 years and older with Tdap.
- Wound management: Tdap is preferred over Td for wound management among persons aged ≥11 years who have not received Tdap previously.

Tdap and Pregnancy

Pregnant women should receive a dose of Tdap during each pregnancy, preferably during weeks 27 through 36, to maximize maternal antibody response and passive antibody transfer to the infant.

Tdap will provide some protection against pertussis during early months following birth and before the infant is able to receive the primary pertussis vaccine series.

Tdap rates in Pregnant Women- Wisconsin



Tdap and Pregnancy

- All family members and caregivers (e.g., babysitters or grandparents) of infants should receive Tdap vaccine, optimally at least two weeks before the birth of the infant.

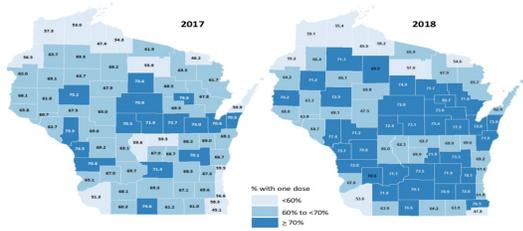
Tdap Vaccine Goal

Healthy People 2020 does not have a goal for Tdap among persons aged 19-64 years (only adolescent goal)

- Few counties had coverage $\geq 70\%$ (La Crosse, Trempealeau and Menominee) in 2014, but now we see a favorable increase in those rates in 2018.

Tdap Rates - Wisconsin

Percent of adults aged 19-64 years who have received one dose of tetanus-diphtheria-acellular pertussis (Tdap) vaccine, 2017 and 2018



P-022790 (4/2019)

Data source: Wisconsin Immunization Registry



Hepatitis B Vaccine Recommendations

For all unvaccinated adults at risk for HBV infection and all adults requesting protection from HBV infection

- Persons at risk
 - Percutaneous or mucosal exposure to blood
 - End-stage renal disease (including pre-dialysis, hemodialysis, peritoneal dialysis and home dialysis)
 - Diabetes mellitus (type 1 or type 2)

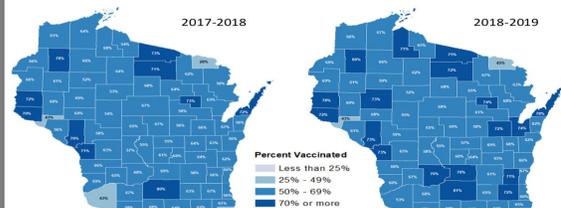
Influenza

2017-2018 influenza immunization rates for adults (National Immunization Survey-Flu and Behavioral Risk Factor Surveillance System data)

- United States immunization rate: **37.1%**
- Wisconsin ranks **35th** (out of 50 states) for influenza immunization rates 2015 (44th in 2012).

Influenza Immunization rates 65+

Influenza vaccination rates by age and county for 65 years and older, Wisconsin
Percentage of Wisconsin residents who received one or more doses of influenza vaccine during July 1 – June 30, by age group and county of residence.



Data source: Numerator: Number of persons recorded in the Wisconsin Immunization Registry as having received at least one dose of influenza during the specified time period. Denominator: Wisconsin population estimates.
Bureau of Communicable Diseases | Immunization Program
Wisconsin Department of Health Services | Division of Public Health

Influenza Immunization Rates 50-64 years

Influenza Vaccine Recommendations

- Influenza vaccine should be offered to all adults as soon as available for the anticipated influenza season and should continue to be offered as long as influenza viruses are circulating.
- Influenza was detected among Wisconsin residents during all but four weeks during CY 2015.

Persons at High Risk for Complications of Influenza

- Adults aged ≥65 years
- Pregnant women
- Residents of nursing homes and other long-term care facilities
- American Indians and Alaskan Natives
- Persons with high-risk medical conditions

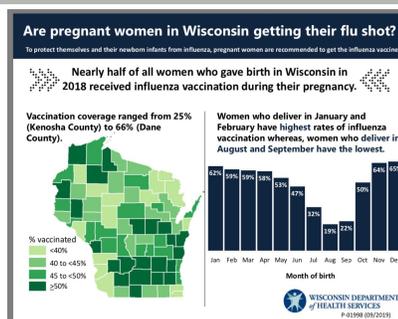
High Risk Medical Conditions Include...

- Asthma
- Neurological and neurodevelopmental conditions
- Chronic lung disease
- Heart disease
- Blood disorders

High Risk Medical Conditions

- Endocrine disorders/Diabetes Mellitus
- Kidney disorders
- Liver disorders
- Metabolic disorders
- Weakened immune system from disease or medication
- Extreme obesity

Influenza Immunization Rates in Pregnant Women



Pneumococcal (PPSV23 and PCV13) Vaccines

- PPSV 23 Contains polysaccharide antigen from 23 types of pneumococcal bacteria that cause 60% to 76% of invasive disease
- PCV13 Contains 13 serotypes of *S. pneumoniae* conjugated to a nontoxic variant of diphtheria toxin known as CRM197

Pneumococcal Immunizations

- **Age 65 years or older** (immunocompetent): 1 dose PCV13 if previously did not receive PCV13, followed by 1 dose PPSV23 at least 1 year after PCV13 and at least 5 years after last dose PPSV23
- Previously received PPSV23 but not PCV13 at age 65 years or older: 1 dose PCV13 at least 1 year after PPSV23

Pneumococcal immunizations

- When both PCV13 and PPSV23 are indicated, administer PCV13 first (PCV13 and PPSV23 should not be administered during same visit)

Special Situations

- Age 19 through 64 years with chronic medical conditions (chronic heart [excluding hypertension], lung, or liver disease; diabetes), alcoholism, or cigarette smoking: **1 dose PPSV23**

Pneumococcal immunizations in Immunosuppressed

- **Age 19 years or older with immunocompromising conditions** 1 dose PCV13 followed by 1 dose PPSV23 at least 8 weeks later, then another dose PPSV23 at least 5 years after previous PPSV23; at age 65 years or older, administer 1 dose PPSV23 at least 5 years after most recent PPSV23 (note: only 1 dose PPSV23 recommended at age 65 years or older)

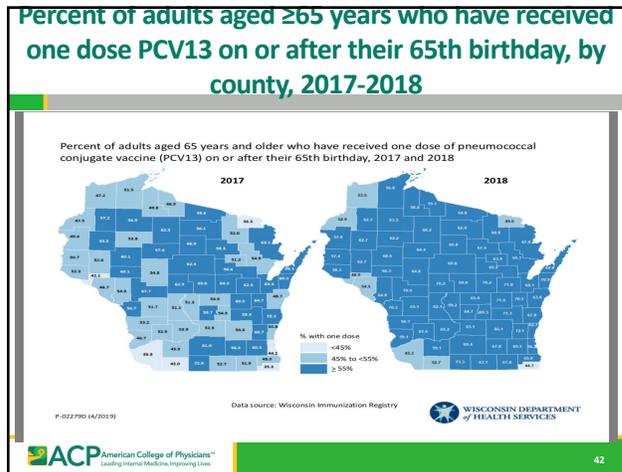
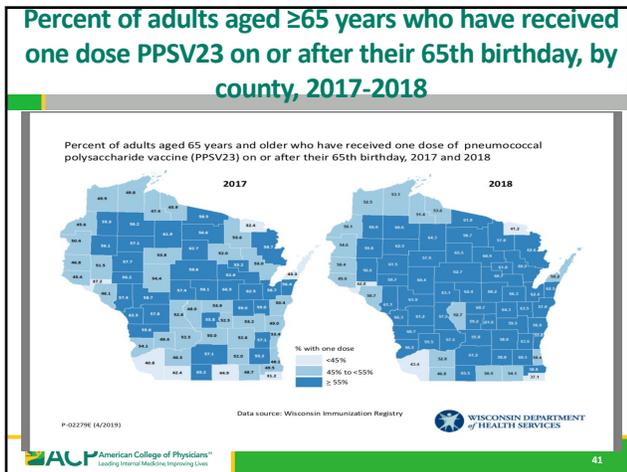
PPSV23 and PCV13 Vaccine Recommendations for special populations

- **Age 19 years or older with cerebrospinal fluid leak or cochlear implant:** 1 dose PCV13 followed by 1 dose PPSV23 at least 8 weeks later; at age 65 years or older, administer another dose PPSV23 at least 5 years after PPSV23 (note: only 1 dose PPSV23 recommended at age 65 years or older)

Intervals for Use of PCV13 and PPSV23

PPSV23 Vaccine Goal

- Healthy People 2020 goal is 90%.
- No counties have reached this goal.



Herpes Zoster Vaccine

- Zoster vaccine live - For ages 60 and older
- Recombinant zoster vaccine - For ages 50 and older

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Zoster Vaccine Recommendation

Administer a single dose of Zoster Vaccine Live to adults aged ≥60 years whether or not they report a prior episode of herpes zoster. Since 2006.

Recombinant Zoster Vaccine— 2 doses separated by 2-6 months. Recommended by ACIP October 2017.

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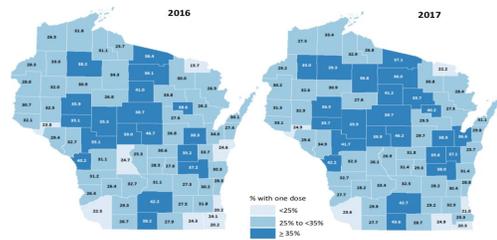
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Herpes Zoster Vaccine Goal

- Healthy People 2020 goal is 30%.
- Many counties have met and surpassed this goal with Portage and Dane Counties leading this effort.

Herpes Zoster Immunization Rates - Wisconsin

Percent of adults aged 60 years and older who have received one dose of zoster (shingles) vaccine, 2016 and 2017



P-02279H (8/2018)

Data source: Wisconsin Immunization Registry



Human papilloma virus [HPV] vaccine

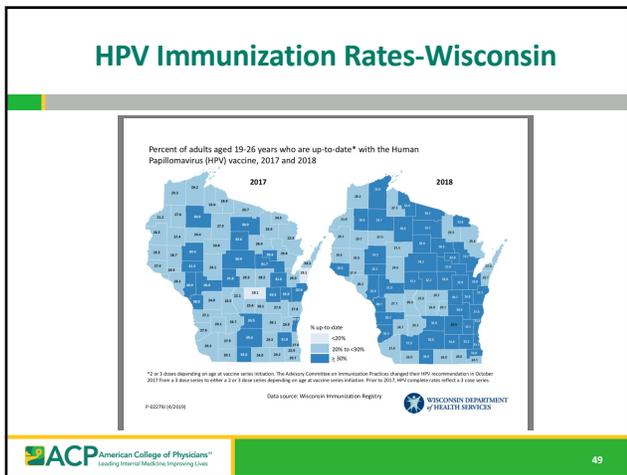
Vaccine Recommendations:

- HPV vaccine is recommended for routine vaccination at age 11 or 12 years. (Vaccination can be started at age 9.)
- ACIP also recommends vaccination for females aged 13 through 26 years and males aged 13 through 21 years not adequately vaccinated previously.

Human papilloma virus [HPV] vaccine

Immunocompromising conditions (including HIV infection) through age 26 years: 3-dose series HPV vaccine at 0, 1–2, 6 months.

Men who have sex with men and transgender persons through age 26 years: 2- or 3-dose series HPV vaccine depending on age at initial vaccination



Barriers to achieving the vaccination goals

WHAT are the barriers or gaps?

WHERE are these barriers or gaps?

HOW do you address the barriers to achieve your goal?

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- ### Why are rates so low?
- Ignorance/apathy /inertia (patients and providers)
 - Inadequate education and emphasis on prevention
 - Failure to offer appropriate immunizations
 - Limited use of electronic and/or other tracking tools
 - Inadequate reimbursement for vaccinations
 - Deficiencies in training/culture
 - Questions about vaccine safety and efficacy
 - Antivaxxers
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Who Most Influences Adults' Decisions to Get Immunized?

| | Ages 18-26 | Age 65 and Older | All Adults |
|---|------------|------------------|------------|
| Personal physician | 47% | 82% | 69% |
| Family member | 33% | 6% | 19% |
| Celebrity physician, public figure, other | 11% | 4% | 7% |
| None of the above | 7% | 6% | 4% |
| No answer | 2% | 1% | 1% |

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How to Overcome Barriers to Adult Immunizations (CDC)

- Increase vaccine demand
- Use Patient reminders
- Different modes of patient education
- Regulation
- Enhance access to vaccines
- Cost effectiveness/ Reduce cost
- Walk-in immunization clinics
- Alternate sites offering immunizations

How to Overcome Barriers to Adult Immunizations

- Address provider barriers
- Institute Institutional policies
- Incorporate Standing orders
- Use Standardized forms
- Develop Efficient clinic flow (right here, right now)
- Ongoing measurement and evaluation

Interventions to Improve Rates

(In descending order of importance)

- Organizational change, e.g. standing orders
- Physician/ Provider reminders
- Physician/ Provider education
- Patient reminders
- Patient education

Recommendations and Reinforcement

- Recommend the vaccine at every opportunity
- Remember that you are a powerful motivator
- Patients very likely to follow physician/ practitioner's recommendations

Reminders and Recall to Patients

- Reminder: Notification that immunizations are due soon
- Recall: Notification that immunizations are past due

- Choose your message content and delivery methods
- Reminders and recall are usually very effective

Reminders and Recall to Providers

- Communication to healthcare providers that a patient's immunizations are due soon or past due

Examples:

- Computer-generated list at scheduled intervals
- Chart Prep- ensure your staff does this.
- Bold print note in paper chart ("Pneumococcal vaccine record unavailable")
- "Immunization Due" note attached to rooming sheet
- Electronic reminder in an electronic medical record

Leveraging Health Information technology

- Reminders to practitioners
- Reminders to patients
- Documentation, reporting, sharing
- Wisconsin Immunization Registry (WIR)

Key Adult Immunization Facts

Challenges

- Vaccine coverage among adults is unacceptably low
- Limited patient awareness about need for vaccines among adults
- Adult vaccinations less integrated into clinical practice
- Insurance coverage varies by provider type (e.g., PCP vs. pharmacy)

Key Adult Immunization Facts

Opportunities

- Most patients are willing to get vaccinated when recommended by medical providers
- Primary care Physicians and providers should believe that immunizations are an important part of the services they provide to patients
- Offering and recommending all indicated vaccines result in higher uptake

Key Immunization Facts

- Stress that all physicians and other health providers, including those who don't provide vaccine services, have a role in ensuring patients are up-to-date on vaccines.
- Adult patients may see many different health care providers, some of whom do not stock some or all vaccines.

Adult Immunization Standards

- Adults may get vaccinated in a healthcare facility, medical home, at work, or a retail setting.
- Goal is to avoid missed opportunities and keep adult patients protected from vaccine-preventable diseases

Key Components of Standards

- Call to action for health care professionals:
- **Assess** immunization status of all patients in every clinical encounter.
- Strongly **Recommend** vaccines that patients need.
- **Administer** needed vaccines or **Refer** to a provider who can immunize.
- **Document** vaccines received by patients, including entering immunizations in the WIR.

Wisconsin Immunization Registry

- In use since May 2000
- Lifespan immunization registry
- Use is not required by healthcare providers, though it is estimated to be used by about 95% of Wisconsin health care providers who provide immunization services.

Summary

Vaccination rates are low overall among adults in Wisconsin, but improving

Offering and recommending all indicated vaccines will improve adult vaccination rates over time

All physicians and healthcare providers have a role in implementing the Standards

RESOURCES & REFERENCES

- Adult immunization schedule:
<http://www.cdc.gov/vaccines/schedules/hcp/adult.html>
- Adult Immunization Standards:
<https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/index.html>

RESOURCES & REFERENCES

Wisconsin Immunization Registry

- <https://www.dhfwir.org/PR/logoff.do>
- <https://www.dhs.wisconsin.gov/immunization/wir-healthcare-providers.htm>
- Wisconsin Department of Health Services
- <https://www.dhs.wisconsin.gov/immunization/adult.htm>

RESOURCES & REFERENCES

- <http://www.cdc.gov/vaccines/programs/afix/index.html>
- Immunization Action Coalition
<https://immunize.org/>

ACP Resources

- <https://www.acponline.org/clinical-information/clinical-resources-products/adult-immunization>
- https://annals.org/aim/fullarticle/2723806/recommended-adult-immunization-schedule-united-states-2019?_ga=2.123689165.739260885.1567447602-1849150646.1567447602