

Wisconsin Research and Education Network (WREN) Questionnaire on Vaccines - June 2021 (Initial questionnaire)

This questionnaire is being conducted as part of a quality improvement project with the Wisconsin Research and Education Network (WREN). The first few questions are about you and your practice. The next 15 questions ask about the pneumococcal 13-valent conjugate vaccine (PCV13) and your use of the vaccine for adults older than 65 years.

Thank you for your participation.

Key terms

PCV13 refers to the pneumococcal 13-valent conjugate vaccine (brand name: Prevnar 13®).

PPSV23 refers to the pneumococcal polysaccharide vaccine (brand name: Pneumovax®).

Invasive pneumococcal disease (IPD) refers to more severe and invasive pneumococcal infections, such as bacteremia, sepsis, meningitis and osteomyelitis.

Shared decision making (SDM) refers to is a collaborative process where the patient and clinician actively participate to make decisions together. The clinician provides information about the benefits and harms of a test or intervention and the patient shares their personal values and preferences. SDM applies to situations where there is no single “right” decision.

Telemedicine specifically refers to delivery of remote clinical services. **Telehealth** represents a broader scope of remote healthcare services than telemedicine as it refers to any health services that are provided by telecommunications technology.

Where do you provide clinical services? Please check all that apply.

- Rural clinic
- Urban clinic
- Hospital-based clinic
- Public health clinic
- Federally qualified health center (FQHC)
- Tribal clinic
- Pharmacy
- Other, please describe _____

How long have you been in clinical practice?

- 0-5 years
- 6-10 years
- More than 10 years
- Resident or in other training program
- Not applicable

Which age groups are vaccinated in your practice? Please check all that apply.

- 0 to 10 years old
- 11 to 17 years old
- 18 to 64 years old
- Older than 65 years
- Not applicable

Please indicate your occupation/job title. Please select the single best answer.

- Medical assistant *Medical assistants may skip to question designated by **
- Nurse
- Nurse practitioner
- Pharmacist
- Physician (including residents)
- Physician assistant
- Public health professional
- Other, please describe _____

Approximately how many adults need to be vaccinated with PCV13 to prevent one case of community-acquired pneumonia or invasive pneumococcal disease (IPD)?

Community-acquired pneumonia	<input type="checkbox"/> 260 adults	<input type="checkbox"/> 2,600 adults	<input type="checkbox"/> 5,200 adults	<input type="checkbox"/> 26,000 adults
Invasive pneumococcal disease (IPD)	<input type="checkbox"/> 260 adults	<input type="checkbox"/> 2,600 adults	<input type="checkbox"/> 5,200 adults	<input type="checkbox"/> 26,000 adults

Approximately what percent decrease in risk of community-acquired pneumonia or invasive pneumococcal disease (IPD) would a healthy adult, aged 65 years or older, get from being vaccinated with PCV13 (pneumococcal 13-valent conjugate vaccine)?

Community-acquired pneumonia	<input type="checkbox"/> 2%	<input type="checkbox"/> 9%	<input type="checkbox"/> 27%	<input type="checkbox"/> 50%
Invasive pneumococcal disease (IPD)	<input type="checkbox"/> 2%	<input type="checkbox"/> 9%	<input type="checkbox"/> 27%	<input type="checkbox"/> 50%

Which of the following statements regarding the PCV13 vaccine are TRUE? Please check all that apply.

- The CDC recommends shared decision making (SDM) for PCV13 vaccination for healthy* persons aged 65 years and older (*who do not have an immunocompromising condition, cerebrospinal fluid (CSF) leak, or cochlear implant).
- In a clinical study, the PCV13 vaccine demonstrated 94% efficacy against vaccine-type pneumococcal pneumonia in adults 65 years and older.
- The pediatric pneumococcal vaccination program that was started in 2010 is associated with a reduction in the risk for invasive pneumococcal disease (IPD) in adults aged 65 years and older.
- I am not familiar with this information regarding PCV13.

How important is the prevention of invasive pneumococcal disease (eg, sepsis and/or meningitis) to your patients 65 years and older?

- Not at all important
- Slightly important
- Moderately important
- Very important
- Extremely important

How strongly do you usually recommend the PCV13 vaccine for your patients 65 years and older?

- Do not recommend
- Weakly discourage
- Neutral, neither recommend or discourage
- Weakly recommend
- Strongly recommend

Do you think it is worthwhile to give the PCV13 vaccination to your patients 65 years and older?

- Yes
- Maybe
- No

Please explain your answer. _____

Given the potentially severe respiratory complications of SARS-CoV-2 infection, have your attitudes toward PCV13 vaccine in older adults changed since the onset of the pandemic?

- No
- Yes. Please explain your answer. _____

How have you conducted discussions regarding PCV13 vaccinations with your patients older than 65 years? Please check all that apply.

- I only discuss the PCV13 vaccine if a patient asks about this vaccine.
- I routinely offer the PCV13 vaccine to my patients.
- I have provided written information regarding the PCV13 vaccine (eg, brochures, leaflets, etc).
- I have discussed details and/or answered questions when a patient expressed vaccine hesitancy regarding the PCV13 vaccine.
- I have had discussions about the potential benefits and harms of the PCV13 vaccine.
- Other. Please explain your answer _____
- I have not discussed PCV13 vaccinations with my patients.

Shared decision making (SDM) is a collaborative process where the patient and clinician actively participate to make decisions together. The clinician provides information about the benefits and harms of a test or intervention and the patient shares their personal values and preferences. SDM applies to situations where there is no single “right” decision.

Is it feasible to implement shared decision making regarding the PCV13 vaccine in your clinical practice?

- Yes
- No

Please explain your answer. _____

How difficult is it (or would it be) to explain the potential benefits and harms of PCV13 to your older patients?

- Very easy
- Somewhat easy
- Neither easy nor difficult
- Somewhat difficult
- Very difficult

Please explain your answer. _____

During telemedicine visits, how difficult is it (or would it be) to explain the potential benefits and harms of PCV13 to your patients older than 65 years?

- Very easy
- Somewhat easy
- Neither easy nor difficult
- Somewhat difficult
- Very difficult

Please explain you answer on the level of difficulty of using telemedicine to explain the PCV13 vaccine to your patients. _____

***Which of the following practices regarding immunizations are used by you or your clinic? Please check all that apply.**

- Assess immunization needs of patients at every clinical encounter
- Use standing orders for vaccines based on established recommendations
- Use electronic health records or other systems to automatically remind patients and clinic staff when vaccinations are due
- Conduct special events to increase patient access to immunizations (eg, flu shot clinics, drive through vaccinations, etc)
- Offer patients older than 65 years **the PCV13 vaccine** by letter, email, or through the EHR
- Development and implementation of patient education to address vaccine hesitancy
- Use the Wisconsin Immunization Registry (WIR) to run a report about vaccination rates in your clinic
- Other, please describe _____
- None of the above

How often do you counsel patients on potential benefits and harms of vaccines in your practice (ie, how many times per week by age group)?

	None	1 to 3 times per week	4 to 7 times per week	8 or more times per week
0 to 10 years old (including consults with parents)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11 to 17 years old (including consults with parents)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adults 18 to 64 years old	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Adults older than 65 years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Have you used the following materials for any shared decision-making (SDM) conversations in your practice?

	No	Yes
Printed guide or brochure	<input type="checkbox"/>	<input type="checkbox"/>
Printed decision aid	<input type="checkbox"/>	<input type="checkbox"/>
Online tool with benefits/harms	<input type="checkbox"/>	<input type="checkbox"/>
Decision aid or tool embedded in the EHR	<input type="checkbox"/>	<input type="checkbox"/>
Other, please describe	<input type="checkbox"/>	<input type="checkbox"/>

In general, have you used telemedicine (ie, video conferencing, phone) for shared decision making (SDM) conversations with your patients?

- No
- Yes. How successful was the use of telemedicine for shared decision conversations with your patients?

Please explain. _____

Optional: Please provide your contact information if you would be interested in participating in a project to review materials regarding shared decision making for use of the PCV13 vaccine in older patients. Please note that your information will be kept confidential and will only be used to contact you regarding our project.

Name _____
 Address _____
 City _____
 State _____
 Postal code _____
 email _____
 Phone number _____

Thank you for completing this questionnaire. We value your responses, which will be used to develop our quality improvement initiative on vaccines in adults 65 years and older.

Answers to knowledge questions:

Approximately how many adults need to be vaccinated with PCV13 to prevent one case of community-acquired pneumonia? **2,600 adults**

Approximately how many adults need to be vaccinated with PCV13 to prevent one case of invasive pneumococcal disease (IPD)? **26,000 adults**

Approximately what percent decrease in risk of community acquired pneumonia would a healthy adult, aged 65 years or older, get from being vaccinated with PCV13? **9%**

Approximately what percent decrease in risk of invasive pneumococcal disease would a healthy adult, aged 65 years or older, get from being vaccinated with PCV13? **50%**

TRUE. The CDC recommends shared decision making (SDM) for PCV13 vaccination for healthy* persons age 65 years and older (*who do not have an immunocompromising condition, cerebrospinal fluid (CSF) leak, or cochlear implant).

FALSE. In a clinical study, the PCV13 vaccine demonstrated 94% efficacy against vaccine-type pneumococcal pneumonia in adults 65 years and older.

TRUE. The pediatric pneumococcal vaccination program that was started in 2010 is associated with a reduction in the risk for invasive pneumococcal disease (IPD) in adults age 65 years and older.

Shah AA, Wallace MR, Fields H. Shared decision-making for administering PCV13 in older adults. *Am Fam Physician.* 2020;101(3):134-135. aafp.org/afp/2020/0201/afp20200201p134.pdf

Matanock A, Lee G, Gierke R, Kobayashi M, Leidner A, Pilishvili T. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥ 65 years: Updated recommendations of the Advisory Committee on Immunization Practices [published correction appears in *MMWR Morb Mortal Wkly Rep.* 2020 Jan 03;68(5152):1195]. *MMWR Morb Mortal Wkly Rep.* 2019;68(46):1069-1075. cdc.gov/mmwr/volumes/68/wr/mm6846a5.htm

Henningfield M, Yuroff A, Sampson L, Hunter PH. Knowledge, attitudes, and behaviors regarding pneumococcal vaccines in adults 65 years and older in primary care in Wisconsin. *WMJ.* 2024;123(3):204-209.

Summary of responses to open-ended questions

Question topic	Write-in Comments
<p>Do you think it is worthwhile to give the PCV13 vaccination to your patients 65 years and older?</p>	<ul style="list-style-type: none"> • Complete coverage to prevent pneumococcal infection • I don't think it's worthwhile for otherwise healthy patients without risk factors other than age. • Depends on each individual patient; usually refer the patient to decision making with their physician • Simple easy protection that also helps herd immunity. Minimum reporting of adverse drug reports. • Vaccine administration has become commonplace at most outpatient and clinic pharmacies. For sites that are able to manage increasing vaccine volume, it seems like common sense to offer immunizations that can protect patients on the population level. • I understand that there was no change in IPD when implemented for those >65yo. However, I do not know what will happen to my patient in 5-20 years from now, and I would like them to get the conjugate vaccine while their immune system can develop a robust response for their future health. • Pneumococcal infection is a significant risk factor for hospitalization in patients older than 65 with co-morbidities. Many patients in my rural practice setting have immune system compromised status, diabetes, COPD, or CVD, with a significant portion having more than one of these issues. Additionally, there are a large amount of vaccine hesitant and outright skeptics in the local area. People need to protect themselves as some in the community will not help in preventing the spread of such diseases. • I follow ACIP recommendations for the specific patient. • Depends on comorbid conditions and living situation. • I work with immunocompromised patients. • We recommend any and all vaccines that are appropriate for each particular patient. • Ensuring our residents are fully vaccinated for recommended vaccines is critical. In addition, it has regulatory implications for our facilities. • I am generally pro vaccine because I feel the benefits outweigh the risks. • Unlikely to provide much benefit if they receive PPSV23 • NNT seems high compared to some other primary prevention approaches. However, cost/benefit of the vaccine probably is better than some other primary prevention approaches. • It is a vaccine-preventable serious illness. • Low risk of harm, well-proven benefit • Minimal risk or adverse effects associated with the vaccine with clear benefit

	<ul style="list-style-type: none"> • Not being sure of exact statistics, I see a fair amount of pneumococcal pneumonia which has higher severity and care intensity needs compared to other causes of pneumonia so the vaccine appears to be well worth it. • If my patient is at risk – immunocompromised then more likely have conversation • When the CDC recommends vaccines I trust that there is good data to support the recommendation. • I would have to go back and check CDC guidelines on this to be sure. • I am concerned about waning community protection based on vaccination rates of children. My problem is the change in ACIP guideline and uncertainty about insurance coverage in adults age 65+ • Benefits outweigh risks. • All my patients also have cancer. • I recall CDC/ACIP guidelines about PCV13 over last year or so, that diminished it's importance when compared with pneumo 23, even in our HIV patients.
<p>Do you think it is worthwhile to give pneumococcal vaccines to your patients 65 years and older?</p>	<ul style="list-style-type: none"> • I encourage all of my patients with risk factors or age >65 to be immunized to reduce risk and avoid hospitalization. • Just following the guideline. • Helps prevent severe illness/hospitalizations from pneumonia • Preventing disease is one of the most important things I do, I love to give vaccines whenever there is an ACIP recommended one. • Vaccination can help prevent serious pneumococcal disease-hospitalizations and death. • Studies show reduced pneumococcal disease with vaccination. • Reduces risk with minimal to no downside • Seems like the risks are quite low with potential though uncertain benefit. • If high risk
<p>Given the potentially severe respiratory complications of SARS-CoV-2 infection, have your attitudes toward PCV13 vaccine in older adults changed since the onset of the pandemic?</p>	<ul style="list-style-type: none"> • I did not consider the implications of SARS-CoV-2 infection in this population. The pandemic underscores the importance of vaccine promotion. • I think this is a perfect example of what we cannot predict for our patients in the future. • More likely to recommend PCV13 in light of the COVID-19 pandemic to reduce risk of additional respiratory infections. • Actually-not sure yet. • I am a strong advocate for all recommended vaccines. • I am probably more likely to recommend other vaccines. • Patients seem more willing to be vaccinated to prevent other respiratory infections.

	<ul style="list-style-type: none"> ● Have consistently recommended it, now I still do. ● Incidence has not changed. ● We have backed off a little on pushing PCV-13 because of the recommended two week vaccine-free window around the time of receiving a COVID vaccine. We are prioritizing COVID prevention.
<p>Given the potentially severe respiratory complications of SARS-CoV-2 infection, have your attitudes toward pneumococcal vaccines in older adults changed since the onset of the pandemic?</p>	<ul style="list-style-type: none"> ● I've been better about recommending this series. ● Only in that it is hard to convince people to get multiple vaccines at once, or if they prefer to come back, they end up being lost to follow-up. ● Was an advocate before. ● Even more important and also to keep hospitalizations down.
<p>Is it feasible to implement shared decision making regarding the PCV13 vaccine in your clinical practice?</p>	<ul style="list-style-type: none"> ● My team is equipped to assist patients in this decision. ● I use a shared decision making model every day in visits with patients. ● My site has a private consultation area that may be helpful for some SDM conversations. ● This can be a multidisciplinary endeavor, and we have pharmacists, nurses, APPs, etc. to provide. ● We would need patient consent to give the vaccine and we discuss the vaccinations with patients on a regular basis when they come to pick up prescriptions, we have also built flag in our dispensing software to alert us of potential patients at need of vaccination, based on medication history, age and vaccination history. ● I provide CMM services under a collaborative practice agreement. ● It will require faxes or phone calls to providers but it can be done. ● Whether indicated or not the patient always has the final decision. I consider most recommendations/discussions to be SDM whether it formally is or not. ● We do this every day when discussing vaccine recommendations. ● I work in Urgent Care. We use Health Care Maintenance (sometimes) to catch overdue immunizations, or if patient requests. ● I should be doing more of this, rather than just encouraging it. ● Depends. Other agenda items may preclude time for discussion. ● But... we barely have time to cover the basics. ● This can be part of any aspect of care. ● I already practice this (SDM). ● Yes, although I try to present this differently than other SDM discussions—I indicate that the patient is due for the vaccine and ask if they have questions or concerns before it is administered, rather than asking something like “what do you think/believe about the PCV13 vaccine”. I find this approach leads more people

	<p>to be hesitant and choose not to get the vaccine or want to do their own research. This is the way I approach most elements of care.</p> <ul style="list-style-type: none"> • We should always discuss treatments and prevention options – it is up to the patient to accept or not the recommendations. • However, there are lots of competing priorities, eg, mammography. • Partnership with nursing staff who initiate the topic makes this feasible. • If I had the materials to do so. • Not sure if I understand the question. “Yes” seems obvious unless there is more backstory to the question. • What is there to explain?
<p>How difficult is it (or would it be) to explain the potential benefits and harms of PCV13 to your older patients?</p>	<ul style="list-style-type: none"> • We are already counseling every patient on medications and vaccines. • I understand the benefit of preventing pneumonia and associated severe illness and the potential risks of vaccination. I’m trained to have these conversations with patients. I have time during visits to do so. • I would need to refresh myself on the latest knowledge available regarding PCV13 in older adults. • Well versed. Would just need to know a little bit about the patient. And if healthy, this could be done any time between the ages of 65-70. • We are very familiar with the vaccine and current guideline recommendations on the PCV 13. • We have a private counseling room available for these types of discussions. As a pharmacist, I may not have access to the medical chart so would be dependent on patient’s ability to be an accurate historian. Or I would have to call the PCP and likely not get an answer while patient is still in the pharmacy. • Many patients do not understand how the vaccines are different and what benefit they might receive from the Prevnar 13. • Would need a refresher to remind myself of differences and current ACIP guidance. • “Get vaccinated” doesn’t satisfy some people. • I don’t have the numbers to discuss risks and benefits. • I don’t know the data well enough. • Time is always a barrier. • I haven’t recorded the risks of side effects to memory. I make general statements about the risks being low, mostly local/injection site reactions, etc. • May need to brush up on some of the statistics. • Shared decision making is never easy and risk is a difficult concept to understand.

	<ul style="list-style-type: none"> ● In general I feel the vaccine is not the most effective – better than nothing but still not that effective. I would rather the system spend money on other healthcare needs that would benefit more for less. ● Again, I leave this to residents and staff. ● This age group is generally very open to vaccines. ● Time. ● Only easy if time not taken up with 4587 other mandates. ● We already discuss a million things with patients, who usually have a litany of chronic medical problems that take most of our time away from additional discussion about vaccinations.
<p>How difficult is it (or would it be) to explain the potential benefits and harms of pneumococcal vaccine(s) to your older patients?</p>	<ul style="list-style-type: none"> ● Depends on the health literacy of the patient. ● The benefits are clear to patients (they usually know someone who has had one of these diseases), and vaccine seems to be tolerated well and not controversial. ● It is very safe. Little harm ● I usually don't have to go into much detail for my 65+ population, most are unquestioning acceptors. ● Shifting guidelines make conversation more complicated and benefit is less clear. ● I think the pneumococcal vaccines are lost in the shuffle with the current COVID and flu vaccines. I have a hard time recalling specific details about the vaccine to answer questions. ● My older adult population is not terribly vaccine-skeptical so I have a very high acceptance of vaccines in general in my practice.
<p>Please explain you answer on the level of difficulty of using telemedicine to explain the PCV13 vaccine to your patients.</p>	<ul style="list-style-type: none"> ● We are already providing consultations to patients via telehealth and a component is preventative health. ● Using telemedicine allows me to consult online resources (either simultaneously with the visit or in advance of the visit). This increases my efficiency and confidence. ● Telemedicine can be challenging due to technological glitches. Also if patients arrive late on device, less time. However, easy to have a different health care team member talk to patient later. ● We do not do telemedicine visits in the pharmacy. ● We do not have telepharmacy here and only have a single location. ● N/A we do not have telemedicine available. ● We do not conduct telemedicine visits regularly in the pharmacy. ● Do not do telemedicine so unable to answer. ● Most older folks are not comfortable with telemedicine-they may not have the technology (my mother does not) to have these interactions. ● Don't use telemedicine ● Time is the biggest barrier. ● I don't use TM. ● Time limitations of any visit is the limiting factor for these discussions.

	<ul style="list-style-type: none"> ● Telemedicine doesn't make this conversation any more difficult than in person. ● Depends on time available. ● I don't see it as much more difficult than doing it face to face. ● Harder without sharing written info or info on computer. ● I don't spend as much time on vaccine discussions via telemedicine since we aren't going to provide the vaccine that day. I might mention, "You are due for PCV13, would you like to make an MA visit or get this at your next visit with me? Any questions at this time?" ● Telemed hasn't been a barrier to this type of conversation in my practice. ● Discussion - The issue here is if the patient so desires to get a vaccine (or any treatment for that matter) then one will need to schedule. ● Slightly more difficult than F2F (face-to-face). ● Time... ● Covid-19 taught me that video visits suck for everyone. Old people can't hear in the clinic room, so a little garbled microphone won't be any better. Patients will just nod and pretend they hear. ● It's a verbal conversation; not harder unless it is a phone encounter. ● Telemed is extremely difficult to use effectively. Provider is unable to ascertain patient reaction; unable to view body language, eye contact, etc. that help us gauge whether message offered is received in the right way. Turns out to be a lecture or monologue that has little positive benefit.
<p>In general, have you used telemedicine (ie, video conferencing, phone) for shared decision making (SDM) conversations with your patients? If yes, how successful was the use of telemedicine for shared decision conversations with your patients?</p>	<ul style="list-style-type: none"> ● We use telehealth for follow-up with our patient population. ● I have found these conversations to be similar to those I would have in a face-to-face encounter. ● I have mostly used it to inform patients of their eligibility for vaccines, answer their questions, & let them know we can vaccinate them at our pharmacy. I rarely have someone schedule an appointment over the phone. ● I have only used telemedicine in mock consultations regarding smoking cessation, so my experience may not be applicable here. ● It's better when they are in clinic and can get the vaccine after the discussion if they agree to it. ● It's fine. ● Was reasonably effective ● No change, I have an established panel though which simplifies the discussion. ● SDM is predicated on having a relationship with your patient and that can be more challenging with a telemedicine visit.

	<ul style="list-style-type: none">● Yes. How successful was the use of telemedicine for shared decision conversations with your patients?● Fairly successful - again it is the scheduling after that gets in the way - life gets in the way of scheduling.● Not terribly different than speaking in person.● Generally effective as goals during telemedicine visits are often clear.● About the same.● No difference with in-person
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