

Immunization: Our Best Shot - Tips and Tools to Vaccinate Older Adults

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Disclosures

- Dr. Vinciguerra has no financial relationships with ineligible companies.

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Objectives

Recognize

Recognize appropriate vaccine recommendations for the older adult population

Identify

Identify potential barriers to vaccinations

Analyze

Analyze current methods used to improve vaccination rates

Discuss

Discuss ways to improve vaccine compliance in your patient population

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Let's Engage!

How many vaccines does the CDC strongly recommend for older adults?

- Just two: influenza and COVID
- Three: influenza, COVID, and RSV
- Six-ish!!! (It depends)

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Vaccines Work

Disease	20th Century annual morbidity	2016 Reported cases	Percent decrease (%)
Smallpox	29,005	0	100
Diphtheria	21,053	0	100
Measles	530,217	69	> 99
Mumps	162,344	5,311	97
Pertussis	200,752	15,737	92
Polio (paralytic)	16,316	0	100
Rubella	47,745	5	> 99
Congenital rubella syndrome	152	1	99
Tetanus	580	33	94
Haemophilus influenzae	20,000	22	> 99

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Vaccine Statistics

- Influenza, pertussis, herpes zoster, and pneumococcal contribute 8-10 million cases annually, costing ~ \$6.9-\$34.9 billion
 - Unvaccinated individuals are responsible for almost 80% of the financial burden
- The number of adults who die from a vaccine-preventable disease in the U.S. is now 350x higher than the number of such deaths in children
- From 2020-21 season to 2022-23 season flu vaccine coverage dropped from 54.2% to 50.1% in adults aged 50-64 years, and from 75.2% to 69.7% in adults aged 65 years and older
 - Healthy People 2030 national target of 70% flu vaccine coverage not met and declining

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Why Vaccinate Older Adults?

- Waning antibody protection
- Immunosenescence
- Chronic age-associated comorbidities that reduce immunity
- Global population is increasing – by 2050, 1 in 6 people will be over 65



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Recommended Vaccinations for Adults Aged 50 Years and Older

- Influenza
- Tdap/TD
- Herpes zoster recombinant
- Pneumococcal
- COVID
- RSV
- HepA/HebB**



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Influenza (flu)

- CDC and ACIP preferentially recommend the use of higher dose or adjuvated flu vaccines for people 65 years and older
 - Fluzone High-Dose Quadrivalent (inactivated)
 - Flublok Quadrivalent (recombinant)
 - Flud Quadrivalent (adjuvant)
- Influenza B/Yamagata lineage pushed to probable extinction due to COVID-19 pandemic
- FluMist anticipated to be available for the 2025-2026 influenza season as first self-administration vaccine

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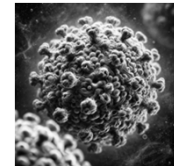
COVID



- mRNA vaccines
 - SPIKEVAX 2024-2025 Formula (Moderna)
 - COMIRNATY 2024-2025 Formula (Pfizer-BioNTech)
- Protein subunit vaccine
 - Novavax COVID-19 Vaccine, Adjuvated 2024-2025 Formula
- No preferential recommendation for any one COVID-19 vaccine over another when more than one recommended and age-appropriate vaccine is available

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RSV



- Abrysvo (Pfizer)
- Arexvy (GSK)
- mRESVIA (Moderna)
- All adults ages 75 and older, adults ages 60-74 at increased risk for severe RSV
 - Arexvy originally licensed by FDA for use in at risk population 50+, ACIP concluded more information required
- Not currently an annual vaccine

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Herpes Zoster Recombinant

- Shingrix (GSK)
 - 2 dose series separated by 2-6 months for immunocompetent adults aged 50 years or older
 - Recommended regardless of prior episode of herpes zoster or prior dose of Zostavax
 - In adults 50-69 years old, Shingrix was 97% effective in preventing shingles
 - In adults 70 years and older, Shingrix was 91% effective in preventing shingles



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Let's Engage!

New patient, ES, age 60, has recently moved to Connecticut from Ontario, Canada. The patient reports receiving Zostavax 1 month ago. Which of the following recommendations regarding the administration of Shingrix is correct?

- Shingrix is contraindicated in those who have received Zostavax.
- It is recommended to administer the Shingrix vaccine immediately.
- It is recommended to wait at least 8 weeks after receiving Zostavax.

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Tdap/Td

- Tdap vaccines
 - Adacel (Sanofi)
 - Boostrix (GSK)
- Td vaccine
 - Tenivac (Sanofi)
- ACIP recommendations allow Td or Tdap vaccine for decennial booster to increase provider point-of-care flexibility

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Pneumococcal

- Pneumococcal conjugate vaccines (PCVs)
 - PCV15 - VAXNEUVANCE (Merck)
 - PCV20 - PREVNAR 20 (Pfizer)
 - PCV21 - CAPVAXIVE (Merck)
- Pneumococcal polysaccharide vaccine
 - PPSV23 PNEUMOVAX 23 (Merck)
- October 2024 CDC endorsed ACIP recommendation for lowering the age for pneumococcal vaccination from 65 to 50 years old

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Let's Engage!

Which of the following situations might act as a barrier to vaccine uptake in older adults?

- Other people at the senior center have had COVID, the flu, or shingles recently and been quite ill.
- Pharmacy staff asks pleasantly and often if they might be ready to be vaccinated.
- The nearest pharmacy and healthcare facilities are miles away and not on a bus route.

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Vaccine Hesitancy Determinants Matrix

Contextual Influences	Individual and Group Influences	Vaccine/Vaccination-Specific Issues
<ul style="list-style-type: none"> Arise due to historic, sociocultural, environmental, economic, or political factors 	<ul style="list-style-type: none"> Arise from personal perception of the vaccine or influences of the social/peer environment 	<ul style="list-style-type: none"> Directly related to vaccine or vaccination

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Contextual Influences

- Age of Misinformation
 - Anti-vaccine rhetoric strengthens confirmation bias
- A comparison of influenza vaccination in U.S. Medicare recipients (aged 65 or older) highlighted racial disparities: vaccination rates of 49% for Whites, 48% for Asians, 33% for Blacks, and 29% for Hispanics
- Lack of rural health care options increases difficulty for older adults

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Individual and Group Influences

- Personal, family and/or community members' experience with vaccination, including pain
- Beliefs, attitudes about health and prevention
- Health system and providers – trust and personal experience
- Immunization as a social norm vs. not needed/harmful

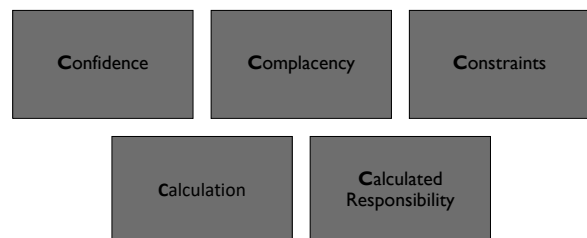
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Vaccine/Vaccination-Specific Issues

- Reliability and/or source of supply of vaccine and/or vaccination equipment
- Mode of administration
- The strength of the recommendation and/or knowledge base and/or attitude of healthcare professionals
- Introduction of a new vaccine or new formulation or a new recommendation for an existing vaccine

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5C Psychological Antecedents of Vaccination



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Drivers to Improve Vaccination Rates

- Ensuring equitable access
- Providing good health communication
- Employing data-driven surveillance and monitoring strategies
- Procuring adequate government support and funding

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Equitable Access

- Connecticut Vaccines for Adults Program (CFVA)
- CT DPH and CT Immunization Coalition have partnered with local health departments to provide a list of clinics around the state



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Equitable Access

- Analysis of underserved populations
 - Context specific interventions to address inequities
- Utilizing pharmacists and other community providers
 - Point-of-care vaccination
- Digital Outreach
 - Older adults with limited access, digital literacy

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Community Pharmacist Role in Vaccinations

- Connecticut has not enacted legislation allowing pharmacists to administer the COVID-19 vaccine. However, the federal PREP Act allowed pharmacists to administer the COVID-19 vaccine through the duration of the public health emergency.
- Pharmacists to administer any federally approved vaccine listed on CDC Adult Immunization Schedule
 - Standing order of a licensed health care provider
- Barriers to providing vaccination
 - Lack of staff, inadequate reimbursement, out-of-network provider

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Let's Engage!

Which of these programs is a federal program that uses digital outreach, television, print, and radio to decrease vaccine hesitancy among older adults?

- A. Risk Less, Do More
- B. It's a Sure Shot
- C. No Shot in the Dark

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Which of these programs is a federal program that uses digital outreach, television, print, and radio to decrease vaccine hesitancy among older adults?

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Health Communication

“There is no vaccine against resistance or refusals that are rooted in social, cultural, religious and political contexts. No supply chain can overcome issues of gender-based decision-making in households. Medical approaches alone cannot address certain community concerns...These challenges demand effective communication action...”

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Health Communication


- Be proactive
- Communication is a two-way process
- Knowledge is important but not enough to change behavior
- Communication tools are available and can be selected and used to promote vaccine uptake



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Health Communication – Risk Less Do More

- 2024 Campaign by US Dept of Health and Human Services to inform public of available vaccines
- Target at risk/ vulnerable populations (>60 years old, long-term care)
- Digital outreach, television, print, radio, out of home platforms



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Use of Information and Communication Technology Strategies to Increase Vaccination Coverage in Older Adults: A Systematic Review

Objective	<ul style="list-style-type: none"> • Evaluate literature on interventions using Information and Communication Technologies (ICT) to improve influenza, pneumococcal, COVID 19 and herpes zoster vaccine rates among older adults <ul style="list-style-type: none"> ◦ Cost effective and accessible way to promote immunizations as alternative to traditional means of communication (letters)
Methods	<ul style="list-style-type: none"> • Systematic Review • Jan 1, 2000 to November 10, 2022 • 22 Studies included • Interventions: <ul style="list-style-type: none"> ◦ Phone calls, text messages, messages sent via electronic health records, automated phone calls, remote patient monitoring in home telehealth program, and emails.

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Use of Information and Communication Technology Strategies to Increase Vaccination Coverage in Older Adults: A Systematic Review

Results	<ul style="list-style-type: none"> • Half of included studies found effectiveness in ICT strategies <ul style="list-style-type: none"> ◦ Higher results in study which used provider prompts (6x higher flu) and multiple approaches (mail and two phone calls) ◦ Less expensive strategies (electronic messaging, autodial calls) also effective • 5 studies with mixed results and 5 studies with no significant effect • Studies where intervention was conducted by pharmacists (3 of 5 found increased vaccine rates) had slightly higher effectiveness than interventions by primary care centers (6 of 11)
Conclusions	<ul style="list-style-type: none"> • Most countries included provided free or insured vaccines <ul style="list-style-type: none"> ◦ One study showed only increase in flu vaccine rates which was only one provided free of charge • Further research needed to assess how ICT can be optimally used to convey effective messages

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Surveillance and Monitoring Programs

- Vaccine Adverse Event Reporting System (VAERS)
- V-safe
- Vaccine Safety Datalink (VSD)
- Clinical Immunization Safety Assessment (CISA) Project



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CT WiZ

- Immunization registry established and maintained by DPH
- Bi-directional electronic data exchange between electronic health record and CT WiZ
- "Recommender" feature which vaccinations are not required, due or overdue

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Government Support and Funding

- Medicare Part B
 - COVID-19
 - Hepatitis B (for patients at increased risk of hepatitis)
 - Influenza
 - Pneumococcal
 - Vaccines directly related to treatment of an injury or direct exposure to a disease (rabies, tetanus)
- As of October 2023, most adults with coverage from Medicaid and CHIP will be guaranteed coverage of all vaccines recommended by the ACIP at no cost
- Medicare Part D makes all adult vaccines recommended by ACIP (other than those already covered under Part B) available at no cost
 - Even if not on formulary, must provide access with physician prescription

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Government Support and Funding

- Johnson and Johnson, Moderna, Sanofi, and AstraZeneca are estimated to have received over \$2.7 billion from the federal government to cover expenses related to COVID-19 human trials
- Bridge Access Program for COVID-19 provided 1.5 million doses to uninsured/underinsured, expired ahead of this season
- Federal Emergency Management Agency (FEMA) sent CT \$15 million to reimburse COVID-19 tests/vaccines provided to the public

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Standards for Adult Immunization Practice

- Assess immunization status of all adult patients at every encounter
- Strongly recommend vaccines that patients need
- Administer vaccine or refer patients to vaccine provider
- Document vaccines received by patients

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Let's Engage!

You're monitoring vaccine uptake in your community and it is alarmingly low. You decide to use the S-H-A-R-E method of encouraging vaccine uptake. What does the R stand for?

- Remind patients that getting a vaccine-preventable disease is costly
- Remind patients that vaccines protect them and their loved ones
- Remind patients that you have the vaccines they need in stock

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SHARE Important Information

- S**hare the tailored reasons why the recommended vaccine is right for the patient
- H**ighlight positive experiences with vaccines (anecdotal or in practice) to strengthen confidence
- A**ddress patient questions and concerns about the vaccine
- R**emind patients that vaccines protect them and their loved ones
- E**xplain the potential costs of getting the disease

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Create a Culture of Immunization

- Consistent messaging about the importance of vaccines, vaccine effectiveness and vaccine safety at all levels of practice
- Adherence to proper vaccine storage, handling, administration
- Implementation of effective workflow processes
- Designate an immunization champion and/or coordinator

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Healthcare Professional Strategies

- Document, document, document!
- Emphasize the importance of healthcare professional endorsement
- Leverage technology to push out vaccination reminders and supporting vaccine messages
- Co-administration when appropriate
- Broaden specialist outreach

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Patient Strategies

- Customize messaging to address concerns of specific age groups
- Vaccinate people where they are
- Mobilize the community to address vaccine awareness, affordability and access

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Works Cited

- Chavesin WA, Ahmad R. Single-pipe Vaccination versus Two-Pipe. *Phil Acad Sci U S A*. 2017;114(16):8231-8233. doi:10.1073/pnas.1704271114
- Cortez J, Tabbal SE, Lu BC, et al. [Cytb \(https://doi.org/10.1093/infdis/jiaa001\)](https://doi.org/10.1093/infdis/jiaa001) project of vaccination against four preventable diseases in older adults: Impact of an aging population. *Vaccine*. 2021;39(36):5187-5197. doi:10.1016/j.vaccine.2021.02.027
- Dalton H. Call to Action: Strategies to Improve Adult Immunization in the US. *NFID*. Published September 9, 2024. <https://www.nfid.org/resources/call-to-action-strategies-to-improve-adult-immunization-in-the-us/>
- Allen JC, Tsangaris FR, Chen W, Tennant DR. Understanding immunocompromise and its impact on vaccination of older adults. *Vaccine*. 2020;38(12):2344-2351. doi:10.1016/j.vaccine.2020.11.020
- CDC. Recommended Vaccinations for Adults. *Vaccines & Immunizations*. Published 2024. <https://www.cdc.gov/vaccines/imz/wh/Adult-Immunization.html>
- CDC. People 65 Years and Older & Influenza. *CDC*. Published 2019. <https://www.cdc.gov/flu/highrisk/65over.html>
- CDC. RSV Vaccine Guidance for Older Adults. *Respiratory Syncytial Virus Infection (RSV)*. Published 2024. <https://www.cdc.gov/flu/high-risk/vaccine-clinical-guidance/older-adults.html>
- Evans RP, Wang R, Heiser P, Hagan E. [Epidemiology and Impact of Seasonal Respiratory Infections: Insights from Australia. *Personas: Updated Recommendations of the Advisory Committee on Immunization Practices* — United States, 2018. *MMWR*. *Morbidity and Mortality Weekly Report*. 2020;69\(17\):47-53. doi:10.1093/mmwr.mm6917a3](https://doi.org/10.1093/infdis/jiaa001)
- CDC. Shingles Vaccine Recommendations. *Shingles (Herpes Zoster)*. Published 2024. <https://www.cdc.gov/flu/high-risk/vaccine-considerations/index.html>
- CDC. Pneumococcal Vaccine Recommendations. *Pneumococcal Disease*. Published July 3, 2024. <https://www.cdc.gov/pneumonia/cdc/high-risk/vaccine-recommendations/index.html>
- MacDonald NE. Vaccine hesitancy: Definition, scope and determinants. *Vaccine*. 2015;33(4):4141-4144. doi:10.1016/j.vaccine.2015.04.036
- Alshaykh SA, Khan AF, Yang G, Pham M, Bunn SA, White D. Demographic, Social, and Contextual Factors Influence the Intention to Use COVID-19 Vaccines: A Scoping Review. *Int J Environ Res Public Health*. 2021;18(17):7042. Published 2021. doi:10.3390/ijerph18177042
- Reischl C, Schmitt P, Hagemann J, Kim J, Hübner C, Böhm R. Beyond confidence: Development of a measure assessing the SC psychological antecedents of vaccination. *PLoS One*. 2018;13(12):e0208801. Published 2018. doi:10.1371/journal.pone.0208801
- Wang SD, Wang V, Calong M, Moore M, Lerman R. Implementing older adult vaccination within the Immunization Agenda 2030: A discussion of potential challenges and solutions. *Population Medicine*. 2023;4(4):10. doi:10.1016/j.pmed.2023.100044
- 2024. *CT Influenza Vaccination Clinics*. *CT.gov*. Published 2024. Accessed November 21, 2024. <https://portal.ct.gov/immunization/knowledge-base/articles/general-public/vaccine-information-by-population/2024-2025-ct-influenza-vaccination-clinics>
- Bay A, Grossi G, Taha M, Cocchio S, Ballo V. Use of Information and Communication Technology Strategies to Increase Vaccination Coverage in Older Adults: A Systematic Review. *Vaccine*. 2023; 11(7):1274. <https://doi.org/10.3390/v11071274>
- Connecticut. *Scope of Practice Policy*. *Noting*. Published 2024. <https://www.ncl.org/scope-of-practice-policy/immunization>
- Connecticut Immunization Registry and Tracking System CIRT3. *CT.gov - Connecticut's Official State Website*. <https://portal.ct.gov/DPH/Immunization/Connecticut-Immunization-Registry-and-Tracking-System-CIRT3>
- CDC. *Chapter 3: Immunization Strategies for Healthcare Practitioners and Providers. Epidemiology and Prevention of Vaccine-Preventable Diseases*. Published July 10, 2024. <https://www.cdc.gov/pinkbook/highlights/immunization-strategies-for-healthcare.html>

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