Importance of Vaccines for older adult

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Facts

- Infectious diseases are a major cause for morbidity and mortality in the older population.
- Undoubtedly, vaccines are the most efficient health care measure to prevent infections.
- Age-associated changes of the immune system are responsible for decreased immunogenicity and clinical efficacy of most currently used vaccines in older age.

Facts

- Demographic changes lead to global aging of the population and the percentage of persons older than 65 years is projected to increase from 9% in 2019 to 16% in 2050 worldwide and from 18 to 25% in Europe and Northern America.
- The severity of many infections is higher in older compared to younger adults and infectious diseases are frequently associated with long-term sequelae such as onset of frailty, impairments in activities of daily living, or the loss of independence

mRNA vaccines: What You Need to Know

- mRNA vaccines are a new type of vaccine to protect against infectious diseases.
- mRNA vaccines teach our cells how to make a protein—or even just a piece of a protein—that triggers an immune response inside our bodies.
- The benefit of mRNA vaccines, like all vaccines, is those vaccinated gain protection without ever having to risk the serious consequences of getting sick with COVID-19.
- **COVID-19 vaccines are not interchangeable**. If you received a Pfizer-BioNTech or Moderna COVID-19 vaccine, you should get the same product for your second shot.

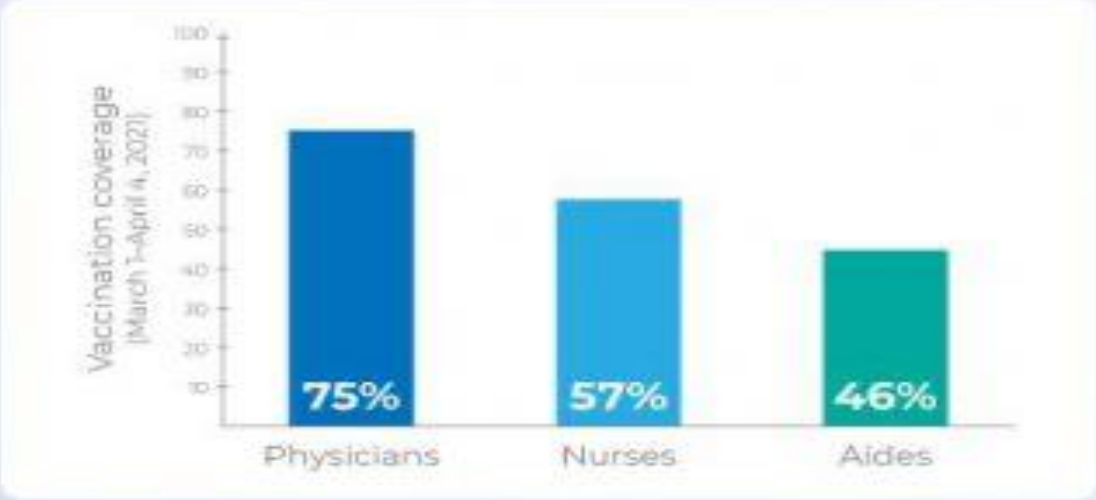
COVID-19 Recommendations for Older Adults

- In general vaccine prevents severe illness, hospitalization and death.
- People 65 and older who received both doses of either Pfizer or Moderna vaccine showed a 94% reduced rate of covid 19 related hospitalizations.
- With the delta variant this is more urgent than ever.

Disparities in COVID-19 Vaccination Coverage Among Staff in Long Term Care Facilities

- Achieving high vaccination coverage in long-term care facilities is critical to preventing additional outbreaks of COVID-19.
- Vaccination coverage was highest among physicians (75.1%) and lowest among aides (45.6%).
- Vaccination rates among aides was lower in facilities located in zip code areas with higher levels of social vulnerability.

Vaccination rates vary among health care providers in long-term care facilities (LTCFs)



Vaccination saves lives:

- LTCF staff may be exposed to COVID-19 every day
- LTCF staff can avoid getting sick and exposing residents to COVID-19

CDC

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MMWR

What Older Adults Need to Know about COVID-19 Vaccines

- The risk of severe illness from COVID-19 increases with age.
- CDC recommends that adults 65 years and older receive COVID-19 vaccines.
- CDC now recommends that people aged 65 years and older, residents aged 18 years and older in long-term care settings, and people aged 50–64 years with underlying medical conditions **should** receive a booster shot of Pfizer-BioNTech's COVID-19 Vaccine at least 6 months after completing their Pfizer-BioNTech primary series.
- People with moderately to severely compromised immune systems should receive an additional dose of mRNA COVID-19 vaccine after the initial 2 doses.

- Adults of any age with certain underlying medical conditions are at increased risk for severe illness from the virus that causes COVID-19.
- COVID-19 vaccines are recommended for and can be administered to most people with underlying medical conditions.
- The list of high-risk medical conditions that put people at increased risk for severe COVID-19-associated illness is updated routinely as new data become available.

Tips for How to Get a COVID-19 Vaccine

- Contact your state or local health department for more information.
- Ask your doctor, pharmacist, or community health center if they plan to provide vaccines and ask them to let you know when vaccines are available.
- **Find a COVID-19 Vaccine:** Search vaccines.gov, text your ZIP code to 438829, or call 1-800-232-0233 to find locations near you.

Information about COVID-19 Vaccines for People with Underlying Medical Conditions

- Clinical trials show that COVID-19 vaccines are safe and effective in people with underlying medical conditions, including those that place them at increased risk for severe COVID-19 symptoms, compared to people without underlying medical conditions.
- A COVID-19 vaccine cannot make you sick with COVID-19.
- Depending on the kind of COVID-19 vaccine you get, you might need a second shot 3 or 4 weeks after your first shot.

Booster Shots

- **People aged 65 years and older and adults 50–64 years with underlying medical conditions should get a booster shot of Pfizer-BioNTech vaccine.**
- **Residents of long-term care settings aged 18 years and older should get a booster shot of Pfizer-BioNTech vaccine.**

Vaccination Card and Booster Shots

- **At your first vaccination appointment, you should have received a vaccination card that tells you which COVID-19 vaccine you received**, the date you received it, and where you received it. Bring this vaccination card to your booster dose vaccination appointment.

Booster Shots vs. Additional Doses

- A booster shot is administered when a person has completed their vaccine series and protection against the virus has decreased over time.
- Additional doses are administered to people with moderately to severely compromised immune systems. This additional dose of an mRNA-COVID-19 vaccine is intended to improve immunocompromised people's response to their initial vaccine series

Underlying Medical Conditions

- Cancer
- Chronic kidney disease
- Chronic lung disease , like COPD, asthma interstitial lung disease, cystic fibrosis, pulmonary hypertension
- Dementia or other neurological conditions
- Diabetes
- Down syndrome
- Heart conditions
- HIV
- Immunocompromised states
- Liver disease
- Overweight and obesity
- Pregnancy
- Sickle cell disease or thalassemia
- Smoker, current or former
- Solid organ transplant
- Cerebrovascular disease
- Substance abuse disorder

What to expect after getting the covid vaccine

Fully vaccinated: means

2 weeks after their second dose in a 2-dose series, such as the Pfizer or Moderna vaccines, or

2 weeks after a single-dose vaccine, such as Johnson & Johnson's Janssen vaccine

If you don't meet these requirements, regardless of your age, you are NOT fully vaccinated. Keep taking all precautions until you are fully vaccinated.

- If you have a condition or are taking medications that weaken your immune system, you may not be fully protected even if you are fully vaccinated. You should continue to take all precautions recommended for unvaccinated people until advised otherwise by your healthcare provider.
- People with moderately to severely compromised immune systems should receive an additional dose of mRNA COVID-19 vaccine after the initial 2 doses.

If you've been fully vaccinated:

- You will still need to follow guidance at your workplace and local businesses.
- If you travel, you should still take steps to protect yourself and others.
- Wearing a mask over your nose and mouth is required on planes, buses, trains, and other forms of public transportation traveling into, within, or out of the United States and while indoors at U.S. transportation hubs such as airports and stations. Travelers are not required to wear a mask in outdoor areas of a conveyance (like on open deck areas of a ferry or the uncovered top deck of a bus).

If you've been fully vaccinated:

- Fully vaccinated international travelers arriving in the United States are still required to get tested 3 days before travel by air into the United States (or show documentation of recovery from COVID-19 in the past 3 months) and should still get tested 3-5 days after their trip.
- You should still watch out for symptoms of COVID-19, especially if you've been around someone who is sick. If you have symptoms of COVID-19, you should get tested and stay home and away from others. If your test is positive, isolate at home for 10 days.
- People who have a condition or are taking medications that weaken the immune system, should continue to take all precautions recommended for unvaccinated people until advised otherwise by their healthcare provider.

If you've been fully vaccinated:

- You can resume activities that you did prior to the pandemic.
- To reduce the risk of being infected with the Delta variant and possibly spreading it to others, wear a mask indoors in public if you are in an area of substantial or high transmission.
- You might choose to wear a mask regardless of the level of transmission if you have a weakened immune system or if, because of your age or an underlying medical condition, you are at increased risk for severe disease, or if a member of your household has a weakened immune system, is at increased risk for severe disease, or is unvaccinated.
- If you travel in the United States, you do not need to get tested before or after travel or self-quarantine after travel.

If you've been fully vaccinated:

- You need to pay close attention to the situation at your international destination before traveling outside the United States.
  - You do NOT need to get tested **before** leaving the United States unless your destination requires it.
  - You still need to show a negative test result or documentation of recovery from COVID-19 **before** boarding an international flight to the United States.
  - You should still get tested 3-5 days **after** international travel.
  - You do NOT need to self-quarantine **after** arriving in the United States.
- If you've had close contact with someone who has COVID-19, you should get tested 3-5 days after your exposure, even if you don't have symptoms. You should also wear a mask indoors in public for 14 days following exposure or until your test result is negative. You should isolate for 10 days if your test result is positive.

- COVID-19 vaccines are effective against severe disease and death from variants of the virus that causes COVID-19 currently circulating in the United States, including the Delta variant.
- Infections happen in only a small proportion of people who are fully vaccinated, even with the Delta variant. When these infections occur among vaccinated people, they tend to be mild.
- If you are fully vaccinated and become infected with the Delta variant, you can spread the virus to others.

About the Delta Variant:

- Vaccines continue to reduce a person's risk of contracting the virus that cause COVID-19, including this variant. Vaccines are highly effective against severe illness, but the Delta variant causes more infections and spreads faster than earlier forms of the virus that causes COVID-19. Learn more about variants in the US.
- Incubation period is shorter - 4 days.
- Fully vaccinated individuals have a 90% chance of no hospitalization with in 6 months after vaccination.
- Fully vaccinated individuals have, lower viral load even if they are infected and have lower symptom burden with VL dropping in 7 days.

What We're Still Learning

- How long COVID-19 vaccines can protect people.

What We Know about Vaccine Breakthrough Infections

- Vaccine breakthrough infections are expected. COVID-19 vaccines are effective at preventing most infections. However, like other vaccines, they are not 100% effective.
- Fully vaccinated people with a vaccine breakthrough infection are less likely to develop serious illness than those who are unvaccinated and get COVID-19.
- Even when fully vaccinated people develop symptoms, they tend to be less severe symptoms than in unvaccinated people. This means they are much less likely to be hospitalized or die than people who are not vaccinated.
- People who get vaccine breakthrough infections can be contagious.

Influenza vaccine

- Once yearly

TdAP

- One dose TdAP and then every 10 years

MMR

- One or 2 doses depending n weather born in or after 1957

Varicella

- 2 doses if born in 1980 or later

Zoster

- 2 doses after age 50

Pneumococcal/ pneumonia vaccine

- One dose PCV13 at >= 65
- One or 2 doses PPSV23 at >= 65
  - If PPSV23 was administered prior to age 65 years, adminster 1 dose PPSV23 at least 5 years after previous dose
- **Age 65 years or older** (immunocompetent): 1 dose PCV13 based on **shared clinical decision-making** if previously not administered.
  - PCV13 and PPSV23 should not be administered during the same visit
  - If both PCV13 and PPSV23 are to be administered, PCV13 should be administered first
  - PCV13 and PPSV23 should be administered at least 1 year apart

Special situations: pneumococcal

- **Age 19–64 years with chronic medical conditions (chronic heart [excluding hypertension], lung, or liver disease, diabetes), alcoholism, or cigarette smoking:** 1 dose PPSV23
- **Age 19 years or older with immunocompromising conditions (congenital or acquired immunodeficiency [including B- and T-lymphocyte deficiency, complement deficiencies, phagocytic disorders, HIV infection], chronic renal failure, nephrotic syndrome, leukemia, lymphoma, Hodgkin disease, generalized malignancy, iatrogenic immunosuppression [e.g., drug or radiation therapy], solid organ transplant, multiple myeloma) or anatomical or functional asplenia (including sickle cell disease and other hemoglobinopathies)**: 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)
- **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)

References

- **https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7190794/pdf/fimmu-11-00717.pdf**
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Questions?