Covid-19: New Vaccines, Boosters and Living With a (Controlled) Pandemic

September 29, 2022
Presenters

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National Association of Social Workers

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University of Texas at Austin
Agenda

• Welcome and introductions
• Current Covid-19 vaccination landscape
• New vaccines, updated booster
• Q and A
Today’s program is made possible through a vaccine confidence initiative undertaken by:

- NASW
- NASW Foundation
- The University of Texas at Austin Steve Hicks School of Social Work

Funded by the Centers for Disease Control and Prevention
Pillars:

1) NASW chapter-hosted trainings on motivational interviewing and Screening, Brief Intervention and Referral to Treatment modalities to support clients in informed vaccine decision making

2) Communications campaign

3) Mobile smartphone app
Social Work Opportunity/Role

Social workers can play a crucial role in supporting informed client decision making about vaccination. We practice in a broad range of settings, are often trusted messengers in communities and bring a distinctive skill set reflecting:

- Person in the environment framework
- Patient/client-centered care approach
- Trauma-informed care models
- Cultural competence
- Public/population health and prevention expertise
- Disaster response expertise
- Commitment to health equity, access and social justice
https://www.socialworkers.org/Practice/Infectious-Diseases/COVID-19-Vaccine-Confidence

General NASW COVID-19 resources:
https://www.socialworkers.org/Practice/Infectious-Diseases/Coronavirus
COVID-19: Context

• To date, over 1.05 million lives lost in the U.S. due to COVID-19 infection
• 3rd leading cause of death
• Highly contagious BA5 is the predominant variant as of today; still surging in many communities
  • 370 lives lost per day to COVID-19 as of this week
COVID-19: Context (cont’d)

• Over half of deaths occurred after vaccines were available in early 2021
  • Only 68% of Americans are fully vaccinated; of these, only 48% have received recommended booster; much lower in some states and localities
  • Despite being at greater risk of severe illness and death, only 26% of people 65+ received the second recommended booster of the original booster formulation
Hospitalization Rates by Booster Status
(Adults Aged ≥ 65 Years)
COVID-19: Context (cont’d)

• The risk of severe COVID-19 increases with the number of underlying medical conditions.

• Millions of Americans of all ages have multiple conditions, which can be further compounded by a mental health condition.
COVID-19: Context (cont’d)

• Certain mental health conditions are associated with more severe COVID-19 illness; CDC has added as “underlying medical conditions”:
  – Mood disorders (including depression)
  – Schizophrenia

• Substance use disorders also increases risk of severe illness
COVID-19: Context (cont’d)

• The benefits of being vaccinated far outweigh the risks of severe illness, hospitalization, death, Long COVID, and other negative outcomes.
• Although people who are up to date on vaccinations can experience a breakthrough infection, they are much less likely to become severely ill or die of it.
• Vaccines have averted over 1 million deaths in the United States
• Getting coronavirus may offer some natural protection (a.k.a. immunity). But experts do not know how long this protection lasts.
COVID-19: Context (cont’d)

• Being **Up To Date** on COVID-19 vaccination is the most effective way to prevent severe illness and death

• As of today, **Up To Date** means you have received:
  – All recommended doses in the primary series of the vaccine (a.k.a., “fully vaccinated”); for some vaccines, it is more than one dose/shot
  PLUS:
  – One booster of the new, updated multivalent booster, when eligible
COVID-19: Context (cont’d)

- CDC recommends that everyone age 12+ who is fully vaccinated receive the new, modified, bivalent booster aimed at combatting currently circulating Omicron subvariants.
- CDC will soon be providing recommendations regarding bivalent boosters for people under age 12; until then, children ages 5 through 11 are recommended to receive the original, monovalent booster.
- CDC booster chart:
Racial/ethnic disparities in vaccine rates have narrowed, but lower vaccination and booster rates present among:

- Children
- Adolescents and young adults
- Pregnant people
- People in rural areas
- Marginalized and vulnerable people
Vaccine Hesitancy

- Vaccines and vaccine boosters are highly safe and effective – but some people are “hesitant” to accept them
- World Health Organization definition (2015):

  ...(D)eay in acceptance or refusal of vaccination despite availability of vaccination services...It is influenced by factors such as complacency, convenience and confidence.
Vaccine Hesitancy (cont’d)

Vaccine hesitancy can reflect, among other things:
• Perceptions about personal level of risk
• Negative prior experiences with health care providers/systems/treatments
• Religious and/or philosophical beliefs
• Socio-political views
• Perceptions of vaccine development process
• Beliefs about health and prevention
• Social/peer group norms, perceptions
• Communication/media environment
# Mis- and Disinformation

**Nearly Eight In Ten Believe Or Are Unsure About At Least One Common Falsehood About COVID-19 Or The Vaccine**

Have you heard anyone say or have you read anywhere that...? IF YES: To the best of your knowledge is that true or false, or do you not know whether it is true or false?

<table>
<thead>
<tr>
<th>Myth / Falsehood</th>
<th>Have heard, believe to be true</th>
<th>Have heard, don't know if true</th>
<th>NET</th>
</tr>
</thead>
<tbody>
<tr>
<td>The government is exaggerating the number of COVID-19 deaths</td>
<td>38%</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Pregnant women should not get the COVID-19 vaccine</td>
<td>17%</td>
<td></td>
<td>22%</td>
</tr>
<tr>
<td>Deaths due to the COVID-19 vaccine are being intentionally hidden by the government</td>
<td>18%</td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>The COVID-19 vaccines have been shown to cause infertility</td>
<td>8%</td>
<td></td>
<td>23%</td>
</tr>
<tr>
<td>Ivermectin is a safe and effective treatment for COVID-19</td>
<td>14%</td>
<td></td>
<td>14%</td>
</tr>
<tr>
<td>You can get COVID-19 from the vaccine</td>
<td>14%</td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td>The COVID-19 vaccines contain a microchip</td>
<td>7%</td>
<td></td>
<td>17%</td>
</tr>
<tr>
<td>The COVID-19 vaccines can change your DNA</td>
<td>8%</td>
<td></td>
<td>13%</td>
</tr>
</tbody>
</table>

NET who have heard at least one of these myths, and either say it is true or are not sure if it is true: 78%

*NOTE: See topline for full question wording.*

*SOURCE: KFF COVID-19 Vaccine Monitor (October 14-24, 2021)*
Long COVID

• “Second-order pandemic”
• Chronic, sometimes debilitating symptoms which present 4 to 8 weeks after acute COVID-19 illness; may disappear and reemerge
• No well-established definition but common symptoms are fatigue, shortness of breath, and/or cognitive problems (“brain fog”)
• Estimated to affect as many as 30% of people who have had COVID; majority of people were not hospitalized or had mild COVID
• Some studies show that being Up to Date on vaccination including any recommended boosters may prevent Long COVID
Long COVID (cont’d)

• Long COVID conditions and symptoms, including depression and anxiety, are real; patients benefit from validation of this fact and compassionate care

• School and workplace accommodations are available for those meeting eligibility requirements

• Racial and ethnic disparities in access to Long COVID care, due in part to lack of health insurance and/or relationship with a primary care provider
Long COVID (cont’d)

Services and Supports for Longer Term Impacts of COVID-19
(outlines federal supports in numerous areas)

National Research Action Plan on Long COVID
Long COVID Resources


US Department of Labor:
SURVIVOR CORPS

Empathize • Organize • Mobilize

https://www.survivorcorps.com/pccc
COVID-19 and Risk of Mental Disorders

• Major new British Medical Journal (BMJ) study based on analysis of large US dataset found substantial risks of new mental health disorders in COVID-19 survivors even if they were not hospitalized, had a mild or asymptomatic infection.
  – anxiety
  – depression
  – stress and adjustment disorders
  – substance use disorders
  – cognitive decline
  – sleep disorders

BMJ 2022;376:e068993
COVID-19 and Risk of Mental Disorders (cont’d)

• The coronavirus can be found in the brain, including the amygdala and the hippocampus, which regulate moods and other functions related to mental health
• Identification and early treatment is crucial to prevent long-term mental health impacts of COVID-19
• Underscores the importance of vaccination in preventing infection and potential mental health impacts
COVID-19 Outcomes Among People with Severe Mental Illness

• People with severe mental illness (SMI) disproportionately impacted by the pandemic
• More likely to have comorbidities (e.g., obesity, cardiovascular disease, respiratory disease) that increase risk of severe infection
• Even when controlling for comorbidities, people with SMI, especially schizophrenia and substance use disorders, have higher risk of mortality due to COVID-19

COVID-19 and ACEs

• 2022 *British Medical Journal* study suggests that vaccine hesitancy may be linked to adverse childhood experiences (ACEs)
• Examples of ACEs: parental separation/divorce; abuse; neglect; parent with mental illness and/or substance use disorder
• Hesitancy 4 times higher among those with 4+ ACEs
• Over 50% of Americans have experienced at least one ACE; 5.7% have experienced 4+ ACEs

Prior NASW National Webinars  
**(free CEUs provided)**

**Webinar 1: November 9, 2021**  
*(COVID-19 Basics, Myths/Facts)*  

**Webinar 2: January 12, 2022**  
*(Motivational Interviewing/SBIRT)*  

**Webinar 3: February 24, 2022**  
*(Current Landscape, Special Populations)*  
NASW Chapter Trainings: Motivational Interviewing and SBIRT (5 free CEU’s provided)

NASW/West Virginia
Thursday, November 10, 2022
10:00 AM to 4:00 PM (ET)

NASW/Iowa
Thursday, December 8, 2022
9:00 AM to 3:00 PM (CT)

Additional trainings planned for 2023
Virtual Forum

November 2-3, 2022
Up to 11.5 CE credits available

Registration:
https://naswvirtual.socialworkers.org/2022-virtual-forum
Introduces core Motivational Interviewing skills and Screening, Brief Intervention, and Referral to Treatment techniques to use in real time with clients around vaccine decision making.

Developed by NASW and the Health Behavior Research and Training Institute at The University of Texas at Austin, led by Drs. Mary Velasquez and Kirk von Sternberg.

Uses the Computerized Intervention Authoring System (CIAS), v. 3.0, developed by Dr. Steve Ondersma and his team at Michigan State University.
The app has a dashboard with five hot-buttons:

- Facts and Myths
- Motivational Interviewing
- Special Populations: Barriers and Solutions
- SBIRT
- COVID-19 Vaccine Resources
COVID Current State

What You Need To Know To Stay Safe

Dr. Mona K Gahunia
Associate Medical Director
Infectious Diseases/Internal Medicine
9/29/2022
Agenda

- Current COVID Strain
- Vaccinations
- Treatment
- Future State
COVID-19 and Variants

- Viruses constantly change through mutation, and new variants of a virus are expected to occur over time.
- Multiple COVID variants have been documented in the US and globally during this pandemic.
- Variants become concerning if there is significant genetic mutation which changes the virus characteristics (e.g., some are more infectious/transmissible) and there is evidence of increasing global spread.
Types of COVID-19 Vaccines Available

There are four approved or authorized vaccines in the United States.

- **Pfizer-BioNTech** and **Moderna** COVID-19 vaccines are mRNA vaccines.
- **Novavax** COVID-19 vaccine is a protein subunit vaccine.
- **Johnson & Johnson’s Janssen** (J&J/Janssen) COVID-19 vaccine is a viral vector vaccine and can be given in some situations.

**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 mRNA from the vaccines is broken down within a few days after vaccination and discarded from the body.

**Protein subunit vaccines** contain pieces (proteins) of the virus that causes COVID-19. The virus pieces are the spike protein. The Novavax COVID-19 vaccine contains another ingredient called an adjuvant. It helps the immune system respond to that spike protein. After learning how to respond to the spike protein, the immune system will be able to respond quickly to the actual virus spike protein and protect you against COVID-19.

Rates of COVID-19 Deaths by Vaccination Status in Ages 5+ Years

April 04, 2021–July 02, 2022 (30 U.S. jurisdictions)

Select Outcome
- Deaths
- Cases

Unvaccinated people aged 5 years and older had:

2.1X
Risk of Testing Positive for COVID-19

AND

5X
Risk of Dying from COVID-19

in June 2022, and

2.4X
Risk of Testing Positive for COVID-19

in July 2022, compared to people vaccinated with at least a primary series.

Source: CDC COVID-19 Response, Epidemiology Task Force, Surveillance & Analytics Team, Vaccine Breakthrough Unit
In June 2022, among people ages 50 years and older, unvaccinated people had:

14X Risk of Dying from COVID-19 compared to people vaccinated with a primary series and two or more booster doses.*

Among people ages 50 years and older, vaccinated people with a primary series and one booster dose had:

3X Risk of Dying from COVID-19 compared to people vaccinated with a primary series and two or more booster doses.*

Source: CDC COVID-19 Response, Epidemiology Task Force, Surveillance & Analytics Team, Vaccine Breakthrough Unit
What are these new COVID-19 boosters, and how do they differ from the existing ones?

- A booster shot is recommended due to concern that the effectiveness of the vaccine decreases over time and may not protect against new strains.

- Until now, COVID-19 booster shots have been **monovalent** or **univalent**.
  - That means they only contained one version of the mRNA sequence for the spike protein that came from the original strain of the virus which emerged in late 2019 in Wuhan, China.

- The boosters that just got approved are considered **bivalent** vaccines. That means they contain the mRNA sequence for the spike protein of two strains of SARS-CoV-2:
  - The original SARS-CoV-2 strain, and
  - One in common between the two current predominant subvariants of Omicron, BA.4 and BA.5.

COVID-19 Vaccination Schedule for People who are NOT Moderately or Severely Immunocompromised

**People ages 12 years and older**

- **Moderna, Novavax, or Pfizer-BioNTech Primary Series**
  - Primary Dose
  - 3-8 or 4-8 weeks
  - Primary Dose
  - At least 2 months
  - Bivalent Booster

Regardless of previous monovalent booster doses given

**People ages 18 years and older**

- **Janssen Primary Series Dose**
  - Primary Dose
  - At least 2 months
  - Bivalent Booster

Regardless of previous monovalent booster doses given

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*3-8 interval for Novavax and Pfizer-BioNTech; 4-8 interval for Moderna
*The bivalent booster dose is administered at least 2 months after completion of the primary series.

For people who previously received a monovalent booster dose(s), the bivalent booster dose is administered at least 2 months after the last monovalent booster dose. The bivalent booster should be age appropriate. Pfizer-BioNTech is authorized for people ages 12 years and older and Moderna is authorized for people ages 18 years and older.
COVID-19 Vaccination Schedule for People who ARE Moderately or Severely Immunocompromised

**People ages 12 years and older**

- **Moderna or Pfizer-BioNTech Primary Series**
  - 3 or 4 weeks* → Primary → At least 4 weeks → Primary → At least 2 months → Bivalent Booster
  - Regardless of previous monovalent booster doses given

- **Novavax Primary Series**
  - 3 weeks → Primary → At least 2 months → Bivalent Booster
  - Regardless of previous monovalent booster doses given

**People ages 18 years and older who received Janssen**

- **Janssen Primary Series Dose**
  - At least 4 weeks → Primary → Addl. mRNA → At least 2 months → Bivalent Booster
  - Regardless of previous monovalent booster doses given

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*3-8 interval for Novavax and Pfizer-BioNTech; 4-8 interval for Moderna
† The bivalent booster dose is administered at least 2 months after completion of the primary series.
For people who previously received a monovalent booster dose(s), the bivalent booster dose is administered at least 2 months after the last monovalent booster dose. The bivalent booster should be age appropriate; Pfizer-BioNTech is authorized for people ages 12 years and older and Moderna is authorized for people ages 18 years and older.
Impact of COVID-19 Pandemic on Children

- Children can get COVID-19 just like adults
- Children can spread COVID-19 to others
- Children are at risk of severe illness from COVID-19
  - Hospitalization
  - MIS-C
  - Death
- Children can experience short and long term post-COVID conditions
- Worsening of mental or emotional health
- Widening of existing education gaps
- Decrease in physical activity
- Decrease in health care utilization
- Decrease in routine immunizations
- Increase in Adverse Childhood Experiences (ACEs)
- Loss of caregivers
Percent of People Receiving COVID-19 Vaccine by Age and Date Administered, United States

December 14, 2020 – September 14, 2022

<table>
<thead>
<tr>
<th>Age Group</th>
<th>At Least One Dose</th>
<th>Fully Vaccinated</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;2 yrs</td>
<td>4.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>2-4 yrs</td>
<td>7.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>5-11 yrs</td>
<td>36.3%</td>
<td>31.2%</td>
</tr>
<tr>
<td>12-17 yrs</td>
<td>70.8%</td>
<td>60.6%</td>
</tr>
<tr>
<td>18-24 yrs</td>
<td>80.0%</td>
<td>65.0%</td>
</tr>
<tr>
<td>25-49 yrs</td>
<td>83.5%</td>
<td>70.6%</td>
</tr>
<tr>
<td>50-64 yrs</td>
<td>94.1%</td>
<td>82.4%</td>
</tr>
<tr>
<td>+65 yrs</td>
<td>95.0%</td>
<td>92.2%</td>
</tr>
</tbody>
</table>

At Least One Dose

Fully Vaccinated

People receiving at least one dose: total count represents the total number of people who received at least one dose of COVID-19 vaccine. People fully vaccinated: total count represents the number of people who have received a dose of a single-shot COVID-19 vaccine or the second dose in a 2-dose COVID-19 vaccine series. Due to the time between vaccine administration and when reported to CDC, vaccinations administered during the last 5 days may not yet be reported. This reporting lag is represented by the gray, shaded box.

Last Updated: Sep 14, 2022

Treatment for COVID-19

If you test positive for COVID-19 and are more likely to get very sick, treatments are available that can reduce your chances of hospitalization and death.

Don’t delay if you are above 50 or have an underlying condition: Treatment must be started within days after you first develop symptoms to be effective.

Other medications, such as Tylenol® or Advil ® can help reduce symptoms and help you manage your illness.

The Treatment Locator (hhs.gov) can help you find a location that offers testing and treatment or a pharmacy where you can fill your prescription.

There are two types of treatment available:

1. **Antiviral treatments** target specific parts of the virus to stop it from multiplying in the body, helping to prevent severe illness and death.

2. **Monoclonal antibodies** help the immune system recognize and respond more effectively to the virus.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Who</th>
<th>When</th>
<th>How</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nirmatrelvir with Ritonavi</td>
<td>Adults; children ages 12</td>
<td>Start as soon as possible; must begin within 5</td>
<td>Taken at home by mouth (orally)</td>
</tr>
<tr>
<td>(Paxlovid)</td>
<td>years and older</td>
<td>days of when symptoms start</td>
<td></td>
</tr>
<tr>
<td>Antiviral</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Remdesivir (Veklury)</td>
<td>Adults and children</td>
<td>Start as soon as possible; must begin within 7</td>
<td>Intravenous (IV) infusions at a</td>
</tr>
<tr>
<td>Antiviral</td>
<td></td>
<td>days of when symptoms start</td>
<td>healthcare facility for 3 consecutive</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>days</td>
</tr>
<tr>
<td>Bebtelovimab</td>
<td>Adults; children ages 12</td>
<td>Start as soon as possible; must begin within 7</td>
<td>Single IV injection</td>
</tr>
<tr>
<td>Monoclonal antibody</td>
<td>years and older</td>
<td>days of when symptoms start</td>
<td></td>
</tr>
<tr>
<td>Molnupiravir (Lagevrio)</td>
<td>Adults</td>
<td>Start as soon as possible; must begin within 5</td>
<td>Taken at home by mouth (orally)</td>
</tr>
<tr>
<td>Antiviral</td>
<td></td>
<td>days of when symptoms start</td>
<td></td>
</tr>
</tbody>
</table>
Future State

The risk that COVID-19 poses to a community at any point in time is a function of the immunity of its members. Immunity is gained through:

• Vaccination (primary series and boosters),
• Infection with COVID-19, or
• Both

Immunity is lost gradually with the passage of time AND/OR when a new variant emerges that evades previous immunity.

What does this mean for you?

• Continue to test for COVID-19 to help prevent spread & seek treatment if above 50 or have other risk factors
• COVID shots possibly every year – likely combined with flu – will be important to keep immunity levels amongst the population high.
• Keep up to date with the scientific news - monitor for new variants
• Take precautions during periods of high community transmission

Questions?