



# The role of nursing in overcoming vaccine hesitancy



Vaccines overview

The dynamic role of nurses

What you can do

Acronyms

References

# Executive summary

In this deck, we will discuss the importance of vaccination and how it works, declines in vaccine uptake since the COVID-19 pandemic, social determinants of health (SDOH) and health equity, and how nurses and their work impact it all.

## Nurses can have an impact on:



### Awareness

Communicate with your patients about the safety profiles and value of vaccination<sup>1,2</sup>



### Education

Help your patients understand how vaccines actually work<sup>1-4</sup>



### Administration

Take every opportunity to vaccinate your patients<sup>5</sup>



### Advocacy

Recognize the social factors contributing to your patients' health status and promote more equitable care for all<sup>6</sup>



### Innovation

Identify tools and methods to keep your patients connected to health services<sup>6</sup>

**Nurses can play a crucial role in combating vaccine hesitancy. Encourage your patients and patients' parents to help protect themselves from preventable diseases by participating in routine vaccination, and talk with them when they express concerns.**<sup>1-3,5</sup>

## Vaccines overview

### Vaccination process

Importance

Impact

Post-COVID-19 decline

Vaccine hesitancy

SDOH

Ensuring health equity

HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# Nurses and the vaccination process

You play a key role in the administration and organization of vaccines. Your efforts can contribute to the success of vaccine rollout campaigns.<sup>1,2,6</sup>



Because they are in direct daily contact with patients, nurses serve as the main health care point of contact for patient populations. Nurses can help to educate vaccine recipients and those considering vaccination, ensuring public awareness of the benefits and risks.<sup>1,7</sup>

Throughout the vaccination process, you're responsible for<sup>1,5</sup>:

**Communication**  
of vaccines' safety  
profile and efficacy



**Administrative safety**  
to ensure safe handling  
and administration  
of vaccines



**Follow-up**  
including collating  
vaccination data and  
updating patient records

## Vaccines overview

Vaccination process

### Importance

Impact

Post-COVID-19 decline

Vaccine hesitancy

SDOH

Ensuring health equity

HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# Importance of vaccination

By helping patients understand how vaccines work, nurses can empower them to make informed health decisions.<sup>1-3,5</sup>

Vaccines use very small amounts of antigens to help the immune system recognize and learn to fight serious diseases.<sup>8</sup> By imitating an infection, vaccines teach the immune system how to fight off that infection in the future.<sup>8,9</sup> Some vaccines may require more than one dose to build stronger immunity and/or a booster dose to bring antibody levels back up as they may wear off over time.<sup>9</sup>



## Children

Timely vaccination throughout childhood is essential because it helps provide immunity before children are exposed to potentially life-threatening diseases.<sup>10</sup> Pediatric nurses can play a key role in monitoring a child's status to ensure that all immunizations are being given and that children are up-to-date.<sup>11</sup>



## Adolescents and Teens

Teenagers also need to stay on track with vaccinations. This includes getting vaccinated against influenza (flu) and ensuring that they're caught up on any missed vaccines. Some teens may have opportunities to travel internationally, which may require additional vaccines depending on the travel destination. It is also important to ensure that vaccinations are up-to-date as they prepare to attend colleges and universities.<sup>12</sup>



## Adults

Adults need to keep their vaccinations up-to-date. Adults may be at risk for different diseases based on age, health conditions, job, lifestyle, and travel habits.<sup>13</sup>

## Vaccines overview

Vaccination process

Importance

### Impact

Post-COVID-19 decline

Vaccine hesitancy

SDOH

Ensuring health equity

HCP organizations

The dynamic role  
of nurses

What you can do

Acronyms

References

# Vaccination can help prevent dangerous diseases and save lives<sup>4</sup>

Vaccines have greatly reduced diseases that once routinely affected babies, children, and adults. People all over the world—including in the United States—still become seriously ill or die from diseases that vaccines can help prevent.<sup>4</sup>



**Nurses are no exception. By the nature of your work, you and other health care providers (HCPs) are at high risk for exposure to certain diseases. Whether you work directly or indirectly with patients, you may be at risk. Make sure you are up-to-date with recommended vaccines, too, and help protect yourself.<sup>14</sup>**

**Vaccines overview**

Vaccination process

Importance

Impact

**Post-COVID-19 decline**

Vaccine hesitancy

SDOH

Ensuring health equity

HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# Pandemic-related decline in pediatric vaccine uptake<sup>15</sup>

The global pandemic caused widespread strain on essential health services, including vaccinations. In many countries, large numbers of people missed vaccination during pandemic-related disruptions, and many have still not caught up on their needed vaccines.<sup>15</sup>

**Following the Centers for Disease Control and Prevention’s (CDC’s) recommended vaccination schedule helps to protect children from 14 potentially serious diseases before their 2nd birthday.<sup>16</sup>**

**On-time vaccination may help<sup>16</sup>:**

- Ensure children have all the recommended doses
- Provide early immunity prior to disease exposure and immunity once maternal antibodies wear off
- Prevent children from getting sick, developing complications from potentially serious diseases

“HCPs should be encouraged to use every visit – including well-child checks, sports physicals, and other appointments – as an opportunity to administer COVID-19 vaccines, as well as other vaccines that are due or might have been missed because of pandemic-related disruptions.”<sup>17</sup>

**– José R. Romero**

Director, National Center for Immunization and Respiratory Diseases, CDC

**Vaccines overview**

- Vaccination process
- Importance
- Impact
- Post-COVID-19 decline
- Vaccine hesitancy**
- SDOH
- Ensuring health equity
- HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# What are vaccine hesitancy and vaccine confidence?



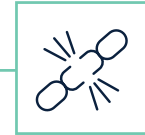
**Vaccine hesitancy** refers to a delay in acceptance or refusal of vaccination, which<sup>18</sup>:

- Varies across time, place, and vaccine
- Is influenced by factors such as complacency, convenience, and confidence
- Encompasses patient and/or parental attitudes, beliefs, and behaviors



**Vaccine confidence** refers to the trust that patients, parents, and/or HCPs have in<sup>19</sup>:

- Recommended vaccinations
- Providers who administer vaccines
- Processes that lead to vaccine licensure and the recommended vaccination schedule



**Health mistrust** can cause poor provider-patient relationships and lead to decreased adherence to public health recommendations. Misinformation and mistrust was prevalent during the COVID-19 pandemic.<sup>20,21</sup> Nurses must recognize knowledge gaps and help empower patients through education to make informed decisions.<sup>1-3,5,20,21</sup>

## Vaccines overview

Vaccination process

Importance

Impact

Post-COVID-19 decline

### Vaccine hesitancy

SDOH

Ensuring health equity

HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# Personal stories

## Common scenarios on vaccine uptake



### Vaccine-hesitant mother

Melissa is a 33-year-old mother with her 3-year-old daughter at the pediatrician. She knows her daughter is due for recommended vaccines, but she is worried about their safety. Melissa has questions for her nurse, and they discuss vaccine efficacy and safety profiles.



### Independent student

Kayla is a 21-year-old student who lives in her own apartment. At her annual physical, her nurse recommends a vaccine that Kayla's friends have been sharing stories about. She does not know what to believe, so she asks her nurse for the facts. The nurse clarifies the truths and debunks the lies.



### Traveler

Robert is a 50-year-old man who loves to travel. He has not received his recommended vaccines because he believes he is too old for vaccines to help him. He discusses this concern with his nurse, who tells him that vaccines can still help prevent certain diseases in people across the life course.



## Vaccines overview

Vaccination process

Importance

Impact

Post-COVID-19 decline

Vaccine hesitancy

### SDOH

Ensuring health equity

HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# Social determinants of health

Various factors may influence people's health. These factors are known as determinants of health.<sup>22</sup> Social determinants of health (SDOH) are the non-medical factors that influence health outcomes. They are the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life.<sup>23</sup>

### SDOH can be grouped into 5 domains<sup>24</sup>:

- 1 | Economic stability
- 2 | Education access and quality
- 3 | Health care access and quality
- 4 | Neighborhood and built environment
- 5 | Social and community context

### SDOH may include<sup>22</sup>:

- Poverty
- Stigma
- Unequal access to health care
- Racism
- Lack of education



**The World Health Organization (WHO) states that social determinants can be more important than health care or lifestyle choices in influencing health. Numerous studies suggest that SDOH account for 30-55% of health outcomes.<sup>25</sup>**

## Vaccines overview

Vaccination process

Importance

Impact

Post-COVID-19 decline

Vaccine hesitancy

### SDOH

Ensuring health equity

HCP organizations

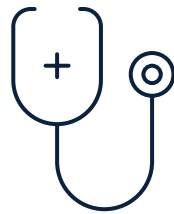
The dynamic role  
of nurses

What you can do

Acronyms

References

# Social determinants of health



## Nurses' role in SDOH

As a profession, nurses have long been advocates for health equity and have a long-standing history of working at the intersection of health and social services. They can help identify and address underlying issues that are strong predictors of health outcomes. Because nurses generally spend more time with patients in a wide variety of settings, they are well-suited to address SDOH.<sup>6,7</sup>

Improving health and health equity will require cross-sector collaborations, including enabling policies, regulations, and community interventions. Nurses alone are not sufficient to tackle SDOH, but they are uniquely positioned to serve as catalysts for change.<sup>7,26</sup>

**Vaccines overview**

- Vaccination process
- Importance
- Impact
- Post-COVID-19 decline
- Vaccine hesitancy
- SDOH
- Ensuring health equity**
- HCP organizations

The dynamic role of nurses

What you can do

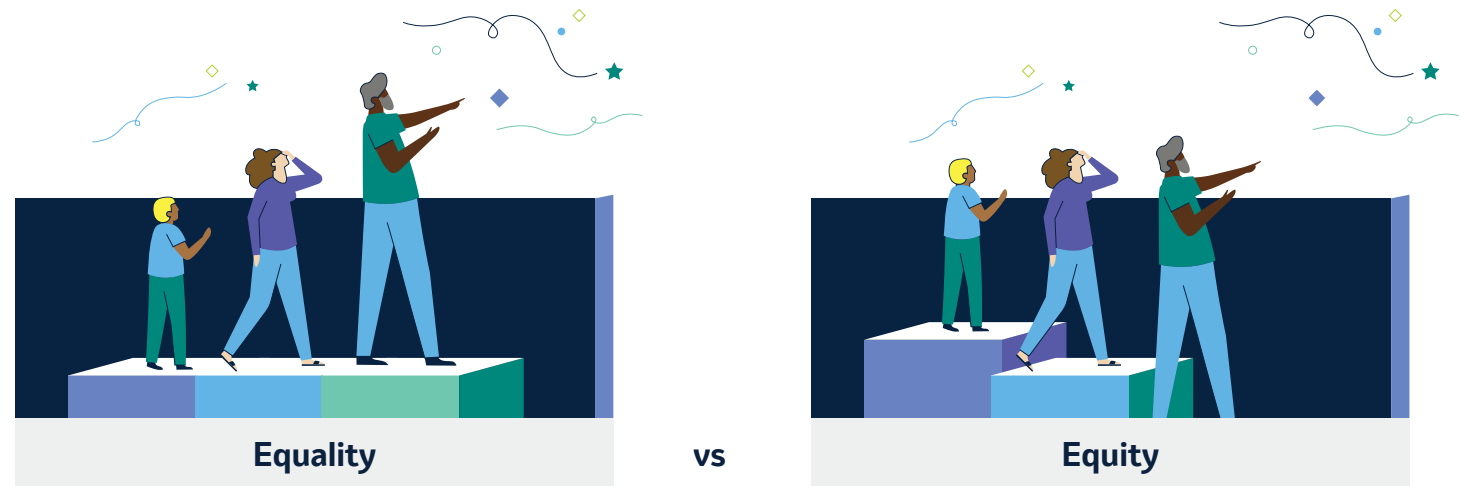
Acronyms

References

# Ensuring health equity

Health equity is the state in which everyone has a fair and just opportunity to attain their highest level of health, and vaccine equity is achieved when everyone has fair and just access to immunization.<sup>27,28</sup>

**Ensuring health equity requires valuing everyone equally with focused efforts to address avoidable inequalities, injustices, and health care disparities.<sup>29</sup>**



**Equality** is achieved when each person or group of people is given the same resources or opportunities for their health. **Equity** involves recognizing that each person or group of people has different circumstances, and health resources should be allocated accordingly to reach an equal outcome.<sup>30</sup>

Shifting nursing priorities and workflows in ways that center SDOH and health equity will require strong leadership to guide the way and to advocate for nurses' well-being.<sup>6</sup>

## Vaccines overview

Vaccination process

Importance

Impact

Post-COVID-19 decline

Vaccine hesitancy

SDOH

Ensuring health equity

### HCP organizations

The dynamic role of nurses

What you can do

Acronyms

References

# HCP organizations recognize vaccination as essential for public health<sup>31-33</sup>



## Immunize.org<sup>31</sup>

- Facilitates communication about the safety, efficacy, and use of vaccines within the broad vaccination community of patients, parents, health care organizations, and government health agencies
- Works in partnership with the CDC
- Makes educational materials and resources available to help increase vaccination rates across the life course



**The dynamic role of nurses**

**Providing critical services**

Expanding role

Vaccine champions

Enhancing health equity

What you can do

Acronyms

References

# Providing critical services in patient health

As the backbone of health systems in the United States, you are crucial to solving our most pressing and persistent health challenges.<sup>34</sup>



Nurses at all levels are present in a wide range of settings outside of traditional health care facilities, working directly in communities to provide care in schools, workplaces, and prisons.<sup>6</sup>



Nurses make home visits to families, provide primary care to school-age children, administer vaccines, provide health education, coordinate health care services within and across settings, and educate people on preventive measures for staying healthy.<sup>6</sup>



**For the 21st straight year, nurses lead Gallup's annual ranking of professions for having high honesty and ethics.<sup>35,36</sup>**

Nurse practitioners (NPs) working in primary care are often the only providers caring for low-income or uninsured people, Medicaid beneficiaries, and historically disadvantaged groups in both rural and urban populations, who cannot always easily access a physician.<sup>6</sup> These interactions create opportunities to engage meaningfully with people and families on matters related to health and well-being, health care, and the social factors that influence health.<sup>6</sup>

Executive summary

Vaccines overview

## The dynamic role of nurses

### Providing critical services

Expanding role

Vaccine champions

Enhancing health equity

What you can do

Acronyms

References



# Providing critical services in patient health

## Nursing shortages amid COVID-19

In a 2021 American Association of Critical Care Nurses (AACN) survey of more than 6,000 acute and critical care nurses, **92% of respondents reported that the pandemic had depleted nurses at their hospitals** and that, as a result, their nursing careers would be shorter than intended. **Around two-thirds of respondents said they were considering leaving the nursing profession because of their COVID-19 experiences.**<sup>37</sup>

Staffing levels have an impact on mortality, length of patient stays, and preventable events such as falls and infections.<sup>38</sup> As such, in an August 2021 survey of 1,781 respondents, **47% of nurse leaders identified staff retention, furloughs, and layoffs as a significant challenge.**<sup>39</sup>

## The dynamic role of nurses

Providing critical services

### Expanding role

Vaccine champions

Enhancing health equity

What you can do

Acronyms

References

# The changing and expanding role of nursing<sup>6</sup>

Nurses are increasingly developing new kinds of expertise while transitioning into new roles and nurse-led, alternative models of care.

### This includes:

- Identifying innovative methods to keep individuals connected to health care services, such as telehealth and home care
- Moving into leadership positions in which they are serving as collaborative partners with other health care workers
- Coordinating with others in non-health care settings and areas of focus to improve overall health

As nurses, you may be called on to address persistent, widening disparities in health that have been exacerbated by the global pandemic, such as increasing needs for mental health care. You may also be called upon to expand your roles to supplement a shrinking primary care workforce, provide care to rural populations, help improve maternal health outcomes, and deliver more health and preventive care in community-based settings.



### By 2030, the nursing profession will look very different than it does today:

- More than 1 million registered nurses (RNs) will retire during this decade
- An aging US patient population, many of whom will have multiple comorbid conditions
- Patient population will continue to diversify

**You can contribute to reshaping the landscape of health equity over the coming decade by serving in expanded roles, working in new settings and new ways, and partnering with communities and other sectors beyond health care.**

## The dynamic role of nurses

Providing critical services

Expanding role

**Vaccine champions**

Enhancing health equity

What you can do

Acronyms

References

# Nurses as vaccine champions

With a nurse vaccine champion in the practice, the management team can explore systemic changes and promote vaccination across the life span. Nurses are logical leaders for a multidisciplinary team that focuses on disease prevention, including vaccination. You can champion the cause of vaccinating patients and organize pre-visit planning activities to ensure that no vaccination opportunities are missed.<sup>5,6,40,41</sup>

As vaccine champions, nurses can work with other clinical staff to serve as stewards and advocates of vaccinations.<sup>41</sup> You are<sup>6,41</sup>:



**Innovators, implementing new office-wide strategies to increase vaccination coverage**

**Advocates, teaching about the importance of recommended vaccines and about the diseases they prevent**

**Collaborators, helping track, maintain, and order vaccines**

**Leaders, actively working to promote adult and childhood immunizations in your communities**

**Nurses can be trusted sources of health information and can work to educate their communities about preventing disease spread and dispelling vaccine-related misinformation.<sup>6</sup>**



**The dynamic role of nurses**

Providing critical services

Expanding role

Vaccine champions

**Enhancing health equity**

What you can do

Acronyms

References

# Enhancing health equity<sup>6</sup>

Nurses can improve health equity by:



Providing care management and team-based care



Expanding the capacity of primary care, including maternal and pediatric care, mental health care, and telehealth



Providing care in school, home, work, and public health settings

Achieving health equity in the United States will require strengthened nursing capacity and expertise.

Nursing can help to create and contribute to equitable public health and health care systems that are designed to work for everyone. When you engage in the complex work of aligning public health, health care, social services, and public policies, you can help to eliminate health disparities and achieve health equity.



**You can contribute to reshaping the landscape of health equity over the coming decade by serving in expanded roles, working in new settings and new ways, and partnering with communities and other sectors beyond health care.**

Executive summary

Vaccines overview

The dynamic role of nurses

## What you can do

### ■ Patient visits

■ Patient engagement

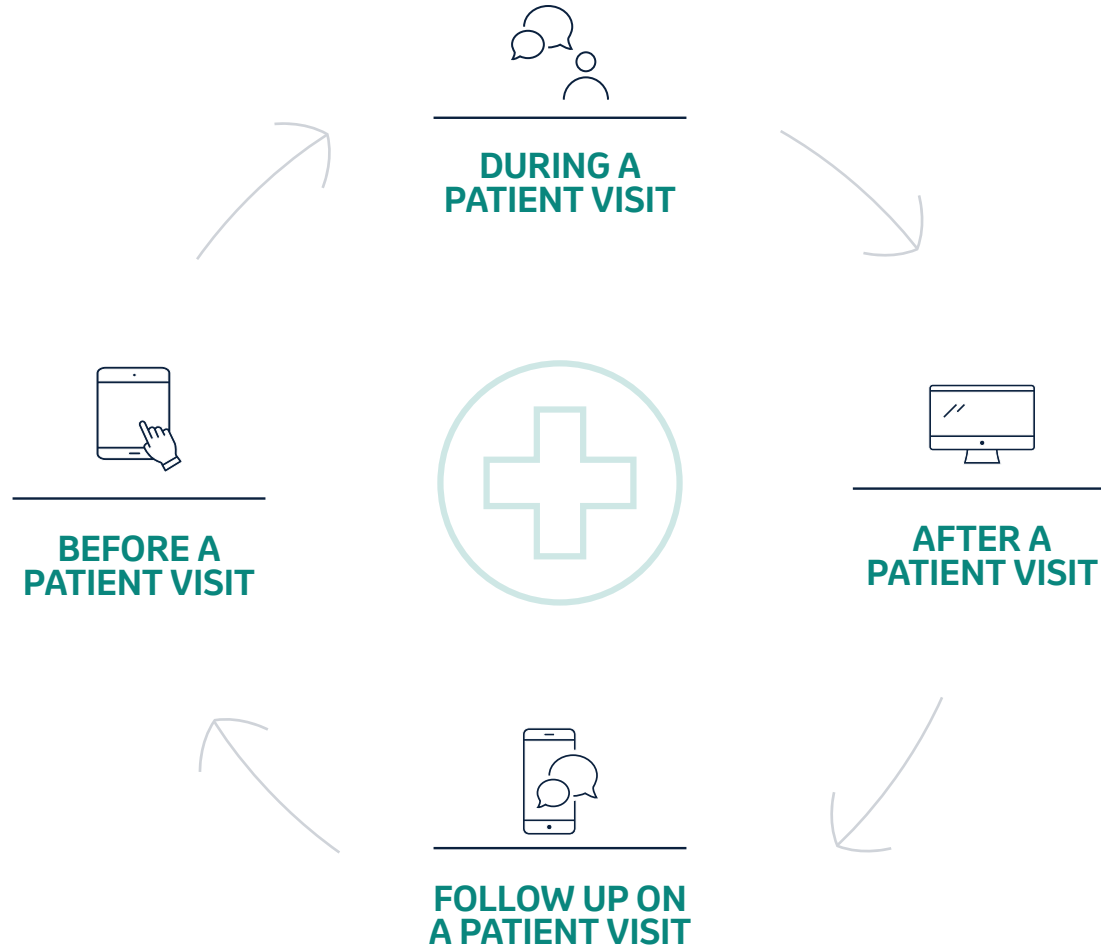
■ Back office strategies

Acronyms

References

# What can you do to help?

Nurses can collaborate across your affiliated organizations to develop and deploy shared agendas for substantial, measurable improvement in health equity.<sup>6</sup>



Executive summary

Vaccines overview

The dynamic role of nurses

## What you can do

### ■ Patient visits

Patient engagement

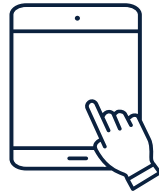
Back office strategies

Acronyms

References

# What can you do to help?

Nurses can collaborate across your affiliated organizations to develop and deploy shared agendas for substantial, measurable improvement in health equity.<sup>6</sup>



## Before a patient visit<sup>5,42</sup>

- Keep staff up-to-date with current vaccination recommendations
- Train staff to administer multiple vaccinations to appropriate patients when they're due
- Ensure vaccines are ordered in a timely manner and are consistently available
- Use patient reminder and recall systems



## During a patient visit<sup>5,43</sup>

- Implement standing orders to allow nonphysician medical personnel to independently assess and administer recommended vaccines
- Encourage patients to seek vaccinations for which they are due or overdue
- Point out personalized reasons, such as the patient's age, health status, lifestyle, or occupation, to explain why a recommended vaccine is right for a patient
- Provide vaccine information statements (VIS) and supply patients with a printed after-visit summary and provide a simple schedule of recommended vaccines and educational resources about vaccines

Executive summary

Vaccines overview

The dynamic role of nurses

## What you can do

### ■ Patient visits

Patient engagement

Back office strategies

Acronyms

References

# What can you do to help?

Nurses can collaborate across your affiliated organizations to develop and deploy shared agendas for substantial, measurable improvement in health equity.<sup>6</sup>



## After a patient visit<sup>42,44,45</sup>

- Keep patient records up-to-date
- Document all administered vaccines through immunization information systems (IIS)
- Update information in patient records and communicate with patients, according to their preferences, via phone or the patient portal



## Follow up on a patient visit<sup>44</sup>

- Confirm that a patient received recommended vaccines
- Send reminders to schedule follow-up vaccination appointments



Executive summary

Vaccines overview

The dynamic role of nurses

## What you can do

Patient visits

**Patient engagement**

Back office strategies

Acronyms

References

# Patient engagement

Nurses can provide care management that helps ensure seamless care. You can also serve as advocates for patients and communities and assist in increasing individuals' trust in and engagement with the health care system.<sup>6</sup>



## Educate



## Advocate



## Deliver care

In their roles as trusted professionals, nurses can provide patients with direct access to relevant information about vaccines and their importance.<sup>2,18</sup>

- Use a presumptive approach when discussing vaccination schedules<sup>5,18</sup>
- Speak with confidence about the risks and benefits of vaccines to patients<sup>1</sup>

### Vaccine hesitancy

- Approach conversations about vaccines using honest and respectful dialogue<sup>46</sup>
- Acknowledge patients' concerns and answer questions about vaccine safety<sup>2,46</sup>
- Familiarize patients with the established approval and monitoring processes in place to study and assess vaccine safety<sup>18</sup>
- Promote health literacy by sharing reliable information sources<sup>18,47</sup>
- Allow for ongoing discussions with vaccine-hesitant families<sup>18</sup>



Executive summary

Vaccines overview

The dynamic role of nurses

## What you can do

Patient visits

**Patient engagement**

Back office strategies

Acronyms

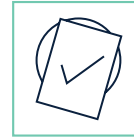
References

# Patient engagement

Nurses can provide care management that helps ensure seamless care. You can also serve as advocates for patients and communities and assist in increasing individuals' trust in and engagement with the health care system.<sup>6</sup>



Educate



Advocate



Deliver care

### Communicating with patients and parents<sup>42</sup>

- Provide patients and parents a simple schedule of recommended vaccinations in a language they can read
- Provide patients with documentation of the vaccinations received each time a vaccine is administered
- Provide reliable educational resources to patients and parents who have questions or concerns about vaccine safety or who want more vaccine information in a language they can read
- Inform patients and parents when the next appointment for vaccinations is due and schedule the visit before they leave the office. Put this information in an electronic recall system

### Evaluate and improve your practice's performance<sup>42</sup>

- Routinely assess vaccination levels of your patient population. Share the results with all staff, and use this information to develop strategies to improve vaccination rates

Executive summary

Vaccines overview

The dynamic role of nurses

## What you can do

Patient visits

**Patient engagement**

Back office strategies

Acronyms

References

# Patient engagement

Nurses can provide care management that helps ensure seamless care. You can also serve as advocates for patients and communities and assist in increasing individuals' trust in and engagement with the health care system.<sup>6</sup>



Educate



Advocate



Deliver care

Missed opportunities for vaccination often occur if HCPs do not assess vaccination status. Integrating electronic health record (EHR) system functionality throughout the patient journey can assist with this effort and improve vaccine uptake.<sup>5</sup>

- You can be trained to administer multiple vaccines to appropriate patients who are due for multiple vaccinations<sup>42</sup>
- Prior to patient visits, you can review the vaccination record for each patient and flag charts of those who are due or overdue for vaccination(s)<sup>42</sup>
- You can ensure vaccines are ordered in a timely manner and are consistently available<sup>42</sup>

### Catch-up vaccination

Reduced vaccination rates during the pandemic make it more important than ever to assess the vaccination status of all children and adolescents at each patient visit in order to avoid missed opportunities for vaccination and ensure timely vaccine catch-up.<sup>48</sup>

Executive summary

Vaccines overview

The dynamic role  
of nurses

## What you can do

Patient visits

**Patient engagement**

Back office strategies

Acronyms

References

# Patient engagement



## Tips for more impactful conversation<sup>49</sup>

- Use a health equity lens when framing information about health disparities
- Consider key health communications principles, such as using person-first language (eg, “a person with diabetes” instead of “a diabetic”) and avoiding unintentional blaming
- Use preferred terms for select population groups and communities while recognizing that there isn’t always agreement on these terms
- Consider how communications, messages, and products are developed while looking for ways to improve health equity and inclusivity



Executive summary

Vaccines overview

The dynamic role  
of nurses

## What you can do

Patient visits

Patient engagement

**Back office strategies**

Acronyms

References

# Back-office strategies



## Avoid missed opportunities<sup>5,42</sup>

- Nurses can help implement systems to ensure the practice never misses an opportunity to vaccinate
- You can establish a policy to vaccinate at appropriate visits, not just well-care visits, and schedule the next vaccination appointment before the patient leaves



## Implement standing orders<sup>5,50</sup>

- Standing orders have had positive effects on vaccination coverage among children, adolescents, and adults



## Run immunization rate reports<sup>5,41</sup>

- Determine the percentage of your patients who are up-to-date on immunizations, and benchmark these data annually against state- or nation-wide data from the National Immunization Survey



## Educate staff<sup>5,42</sup>

- Anyone responsible for administering vaccinations should be knowledgeable about vaccination principles, scheduling, safety and effectiveness, and proper administration techniques

Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

## Acronyms

References

# Acronyms

AACN, American Association of Critical Care Nurses

ACIP, Advisory Committee on Immunization Practices

APIC, Association for Professionals in Infection Control and Epidemiology

CDC, Centers for Disease Control and Prevention

COPD, chronic obstructive pulmonary disease

COVID-19, coronavirus disease 2019

EHR, electronic health record

HCP, health care provider

IIS, immunization information system

NP, nurse practitioner

SDOH, social determinants of health

UNICEF, United Nations Children's Fund

US, United States

VPD, vaccine-preventable disease

WHO, World Health Organization

Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

Acronyms

**References**

## References

1. Patient Education: Risk Communication. American Nurses Association. Accessed September 28, 2023. <https://www.nursingworld.org/practice-policy/work-environment/health-safety/immunize/patient-education/>
2. Talking with parents about vaccines for adults. Centers for Disease Control and Prevention (CDC). Last reviewed April 2018. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/hcp/conversations/downloads/talk-infants-508.pdf>
3. Marotta S and McNally JD. Increasing vaccine confidence through parent education and empowerment using clear and comprehensible communication. *Acad Pediatr*. 2021;21:S30-S31. doi:10.1016/j.acap.2021.01.016
4. 5 reasons it is important for adults to get vaccinated. Centers for Disease Control and Prevention (CDC). Last reviewed September 12, 2022. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/adults/reasons-to-vaccinate.html>
5. Bjork A, Morelli V. Immunization strategies for healthcare practices and providers, Chapter 3. *Epidemiology and Prevention of Vaccine-Preventable Diseases* (Pink Book). Centers for Disease Control and Prevention (CDC). Last reviewed August 18, 2021. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/pubs/pinkbook/strat.html>
6. National Academies of Sciences, Engineering, and Medicine. 2021. *The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity*. Washington, DC: The National Academies Press. doi:10.17226/25982
7. National Advisory Council on Nurse Education and Practice (NACNEP). Integration of SDOH in Nursing Education, Practice, and Research. 16th Report to the Secretary of Health and Human Services and the U.S. Congress. 2019.
8. Making the vaccine decision: addressing common concerns. Centers for Disease Control and Prevention (CDC). Last reviewed July 19, 2023. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/parents/why-vaccinate/vaccine-decision.html>
9. Explaining how vaccines work. Centers for Disease Control and Prevention (CDC). Last reviewed May 24, 2023. Accessed September 28, <https://www.cdc.gov/vaccines/hcp/conversations/understanding-vacc-work.html>

Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

Acronyms

**References**

## References (*continued*)

10. Why vaccinate. Centers for Disease Control and Prevention (CDC). Last reviewed August 1, 2019. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/parents/why-vaccinate/index.html>
11. Bowling AM. Immunizations – nursing interventions to enhance vaccination rates. *J Pediatr Nurs*. 2018;42:126-128. doi:10.1016/j.pedn.2018.06.009
12. Vaccines at 13 to 18 years. Centers for Disease Control and Prevention (CDC). Last reviewed August 17, 2023. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/parents/by-age/years-13-18.html>
13. There are vaccines you need as an adult. Centers for Disease Control and Prevention (CDC). Last reviewed July 30, 2021. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/adults/index.html>
14. Immunization resources. American Nurses Association. Accessed September 28, 2023. <https://www.nursingworld.org/practice-policy/work-environment/health-safety/immunize/immunization-resources/>
15. Guiding principles for recovering, building resiliency, and strengthening of immunization in 2022 and beyond. World Health Organization (WHO). Published 2022. Accessed September 28, 2023. [https://www.technet-21.org/media/com\\_resources/trl/7945/multi\\_upload/GuidingPrinciplesforImmunizationProgrammeRecovery.pdf](https://www.technet-21.org/media/com_resources/trl/7945/multi_upload/GuidingPrinciplesforImmunizationProgrammeRecovery.pdf)
16. Reasons to follow CDC’s recommended immunization schedule. Centers for Disease Control and Prevention (CDC). Last reviewed February 25, 2020. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/parents/schedules/reasons-follow-schedule.html>
17. Romero JR. CDC Call to Action: Add routine & COVID-19 vaccinations to back-to-school checklist. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/hcp/clinical-resources/downloads/safe-return-school.pdf>
18. Smith MJ. Promoting vaccine confidence. *Infect Dis Clin North Am*. 2015;29(4):759-769. doi:10.1016/j.idc.2015.07.004
19. Assessing the state of vaccine confidence in the United States: recommendations from the National Vaccine Advisory Committee: Approved by the National Vaccine Advisory Committee on June 9, 2015 [corrected]. *Public Health Rep*. 2015;130(6):573-595. doi:10.1177/003335491513000606

Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

Acronyms

## References

## References (continued)

20. Best AL, Fletcher FE, Kadono M, et al. Institutional distrust among African Americans and building trustworthiness in the COVID-19 response: implications for ethical public health practice. *J Health Care Poor Underserved*. 2021;32(1):90–98. doi:10.1353/hpu.2021.0010
21. Caceres MMF, Sosa JP, Lawrence JA, et al. The impact of misinformation on the COVID-19 pandemic. *AIMS Public Health*. 2022;9(2):262–277. doi:10.3934/publichealth.2022018
22. NCHHSTP social determinants of health: frequently asked questions. Centers for Disease Control and Prevention (CDC). Last reviewed December 19, 2019. Accessed September 28, 2023. <https://www.cdc.gov/nchhstp/socialdeterminants/faq.html>
23. Social determinants of health at CDC. Centers for Disease Control and Prevention (CDC). Last reviewed December 8, 2022. Accessed September 28, 2023. <https://www.cdc.gov/about/sdoh/index.html>
24. Health Equity and Health Disparities Environmental Scan. US Department of Health and Human Services. March 2022. Accessed September 28, 2023. <https://health.gov/sites/default/files/2022-04/HP2030-HealthEquityEnvironmentalScan.pdf>
25. Social determinants of health. World Health Organization (WHO). Accessed September 28, 2023. [https://www.who.int/health-topics/social-determinants-of-health#tab=tab\\_1](https://www.who.int/health-topics/social-determinants-of-health#tab=tab_1)
26. Tiase V, et al. Nurses' role in addressing social determinants of health. *Nursing*. 52(4):32–37. doi:10.1097/01.NURSE.0000823284.16666.96
27. What is health equity? Centers for Disease Control and Prevention (CDC). Last updated July 1, 2022. Accessed September 28, 2023. <https://www.cdc.gov/healthequity/whatis/index.html>
28. COVID-19 Vaccine Equity for Racial and Ethnic Minority Groups. Centers for Disease Control and Prevention (CDC). Last reviewed March 29, 2022. Accessed September 28, 2023. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/vaccine-equity.html>
29. Healthy People 2030: health equity in healthy people. Office of Disease Prevention and Health Promotion (ODPHP). Accessed September 28, 2023. <https://health.gov/healthypeople/priority-areas/health-equity-healthy-people-2030>
30. NCCDPHP Health Equity Glossary. Centers for Disease Control and Prevention (CDC). Reviewed December 8, 2022. Accessed September 28, 2023. <https://www.cdc.gov/chronicdisease/healthequity/health-equity-communications/nccdphp-health-equity-glossary.html>

Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

Acronyms

## References

## References (continued)

- 31.** About us. Immunize.org. Updated February 10, 2023. Accessed September 28, 2023. <https://www.immunize.org/aboutus/>
- 32.** Recommended child and adolescent immunization schedule 2023. Centers for Disease Control and Prevention (CDC). Published April 27, 2023. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/schedules/downloads/child/0-18yrs-child-combined-schedule.pdf>
- 33.** Recommended adult immunization schedule for ages 19 years or older. Centers for Disease Control and Prevention (CDC). Published April 27, 2023. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/schedules/downloads/adult/adult-combined-schedule.pdf>
- 34.** The National Institute of Nursing Research 2022-2026 Strategic Plan. National Institutes of Health (NIH). Accessed September 28, 2023. <https://www.ninr.nih.gov/aboutninr/ninr-mission-and-strategic-plan>
- 35.** Nurses Retain Top Ethics Rating in U.S., but Below 2020 High. Gallup. Published January 10, 2023. Accessed September 28, 2023. <https://news.gallup.com/poll/467804/nurses-retain-top-ethics-rating-below-2020-high.aspx>
- 36.** Military brass, judges among professions at new image lows. Gallup. Published January 12, 2022. Accessed September 28, 2023. <https://news.gallup.com/poll/388649/military-brass-judges-among-professionsnew-image-lows.aspx>
- 37.** Hear Us Out Campaign Reports Nurses' COVID-19 Reality. American Association of Critical-Care Nurses (AACN). Published September 21, 2021. Accessed September 28, 2023. <https://www.aacn.org/newsroom/hear-us-out-campaign-reports-nurses-covid-19-reality>
- 38.** Nurse staffing crisis. American Nurses Association (ANA). Accessed September 28, 2023. <https://www.nursingworld.org/practice-policy/nurse-staffing/nurse-staffing-crisis/>
- 39.** AONL COVID-19 Longitudinal Study August 2021 Report: Nurse Leaders' Top Challenges, Emotional Health, and Areas of Needed Support, July 2020 to August 2021. American Organization for Nursing Leadership (AONL). Published September 8, 2021. Accessed September 28, 2023. <https://www.aonl.org/system/files/media/file/2021/09/AONL%20COVID-19%20Longitudinal%203%20Written%20Report.pdf>

Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

Acronyms

## References

# References (*continued*)

40. Rittle C, Francis R. The critical role of nurses in promoting immunization for adults. *Am. Nurse Today*. 2016;11(9):42-43.
41. Office strategies for improving immunization rates. American Academy of Pediatrics (AAP). Last updated August 11, 2021. Accessed September 28, 2023. <https://www.aap.org/en/patient-care/immunizations/implementing-immunization-administration-in-your-practice/office-strategies-for-improving-immunization-rates/>
42. Suggestions to improve your immunization services. Immunize.org. Published June 1, 2023. Accessed September 28, 2023. <https://www.immunize.org/catg.d/p2045.pdf>
43. Federman A, Sarzynski E, Brach C, et al. Challenges optimizing the after visit summary. *Int J Med Inform*. 2018;120:14-19. doi:10.1016/j.ijmedinf.2018.09.009
44. Standards for adult immunization practices. Centers for Disease Control and Prevention (CDC). Last reviewed May 2, 2016. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/hcp/adults/for-practice/standards/>
45. Immunizations, reminder and recall systems. American Academy of Pediatrics (AAP). Last updated September 2, 2021. Accessed September 28, 2023. <https://www.aap.org/en/patient-care/immunizations/implementing-immunization-administration-in-your-practice/reminder-and-recall-strategies/>
46. Nabet B, Gable J, Eder J, Feemster K. Addressing vaccine hesitancy to protect children and communities against preventable diseases. Children's Hospital of Philadelphia PolicyLab. 2017. Accessed September 28, 2023. [https://policylab.chop.edu/sites/default/files/pdf/publications/Addressing\\_Vaccine\\_Hesitancy.pdf](https://policylab.chop.edu/sites/default/files/pdf/publications/Addressing_Vaccine_Hesitancy.pdf)
47. Lessons from the Field: Promoting Vaccine Confidence. Association of Immunization Managers. Accessed September 28, 2023. <https://www.immunizationmanagers.org/content/uploads/2022/03/Vaccine-Confidence-Full-Guide.pdf>
48. Catch up on well-child visits and recommended vaccinations. Centers for Disease Control and Prevention (CDC). Last reviewed March 21, 2023. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/parents/visit/vaccination-during-COVID-19.html>



Executive summary

Vaccines overview

The dynamic role  
of nurses

What you can do

Acronyms

**References**

## References (*continued*)

- 49.** Equity in Childhood COVID-19 Vaccination. Centers for Disease Control and Prevention (CDC). Last reviewed October 5, 2022. Accessed September 28, 2023. <https://www.cdc.gov/vaccines/covid-19/planning/children/equity.html>
- 50.** Steps to implementing standing orders for immunization in your practice setting. Immunize.org. Published June 12, 2023. Accessed September 28, 2023. <https://immunize.org/catg.d/p3067.pdf>



Copyright © 2023 Merck & Co., Inc., Rahway, NJ, USA and its affiliates.  
All rights reserved. US-NON-10059 10/23