



Immunizations Recommendations for Health Care Workers

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Health & Human Services

Who are Health Care Workers?

- **Include but not limited to:**

Physicians	Emergency Medical Service Personnel	Autopsy Personnel	Housekeeping
Nurses	Laboratory Personnel	Students and Trainees	Laundry
Therapists	Technicians	Contractual Staff not Employed by the Healthcare Facility	Administrative/Clerical
Pharmacists	Dietary	Maintenance	Billing
Nursing Assistants	Dental Personnel	Security	Volunteers
Other personnel not directly involved in patient care but potentially exposed to infectious agents.			

Immunizations for Health Care Workers



- Health care workers are at risk for exposure to serious, and sometimes deadly, diseases.
- In addition to protecting employees, ensuring that they are up-to-date with recommended vaccines will:
 - decrease the potential of employee furlough
 - reduce the need and cost for post-exposure prophylaxis of patients/residents/employees
 - help ensure an efficient exposure response
- Good vaccine coverage among health care workers will also protect the health of patients and visitors.

Varicella (Chickenpox) – Health Care Workers Recommendations

All health care workers (regardless of year born) should have evidence of immunity to varicella.

- 1 dose if previously received 1 dose varicella-containing vaccine
- 2-dose series 4–8 weeks apart if previously did not receive any varicella-containing vaccine, regardless of whether U.S.-born before 1980

Evidence of immunity:

- U.S.-born before 1980 (except for pregnant women and health care personnel),
- Documentation of 2 doses varicella-containing vaccine at least 4 weeks apart,
- Diagnosis or verification of history of varicella or herpes zoster by a health care provider,
- Laboratory evidence of immunity or disease

Tetanus, Diphtheria, Pertussis (Tdap) General Recommendations

- **Routine Recommendation:**

- A booster dose of either Td or Tdap should be administered every 10 years throughout life.

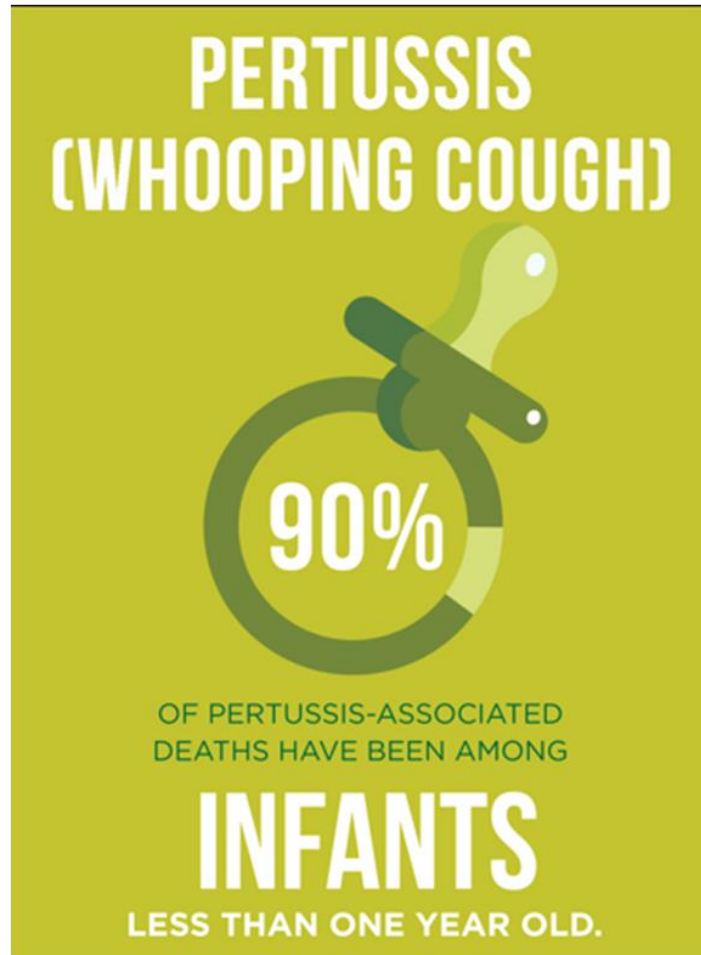
- **Catch-up Recommendation**

- Persons aged ≥ 19 years who have not received a dose of Tdap at or after 11 years should receive 1 dose of Tdap then followed by a booster every 10 years.
- No minimum interval between doses of tetanus - or diphtheria-containing vaccines
- Health care workers should follow the same recommendations as the general public.

Prevaccination serologic testing is not recommended.



Pertussis (Whooping Cough) in North Dakota



- 17 cases in 2023; almost all in Cass County and in fourth quarter
- 36 cases in 2024; 28 in Cass County
 - Most cases in adolescents
 - Schools, childcares, extracurricular activities, etc.

Influenza

- Health care workers should get one dose annually.
- Influenza (flu) among health care workers can result in lost workdays and can spread to other coworkers and to patients who are at higher risk of serious flu complications.
- Flu vaccination of health care workers has been shown to reduce the risk of flu and absenteeism in vaccinated health care workers and reduce the risk of respiratory illness and deaths in nursing home residents.

FLU FACT:
Getting a flu shot will likely lower your risk of getting sick by 40% - 60%. And if you do get flu, its often less severe.

Learn More at
[GetMyFluShot.org](https://www.getmyflushot.org)



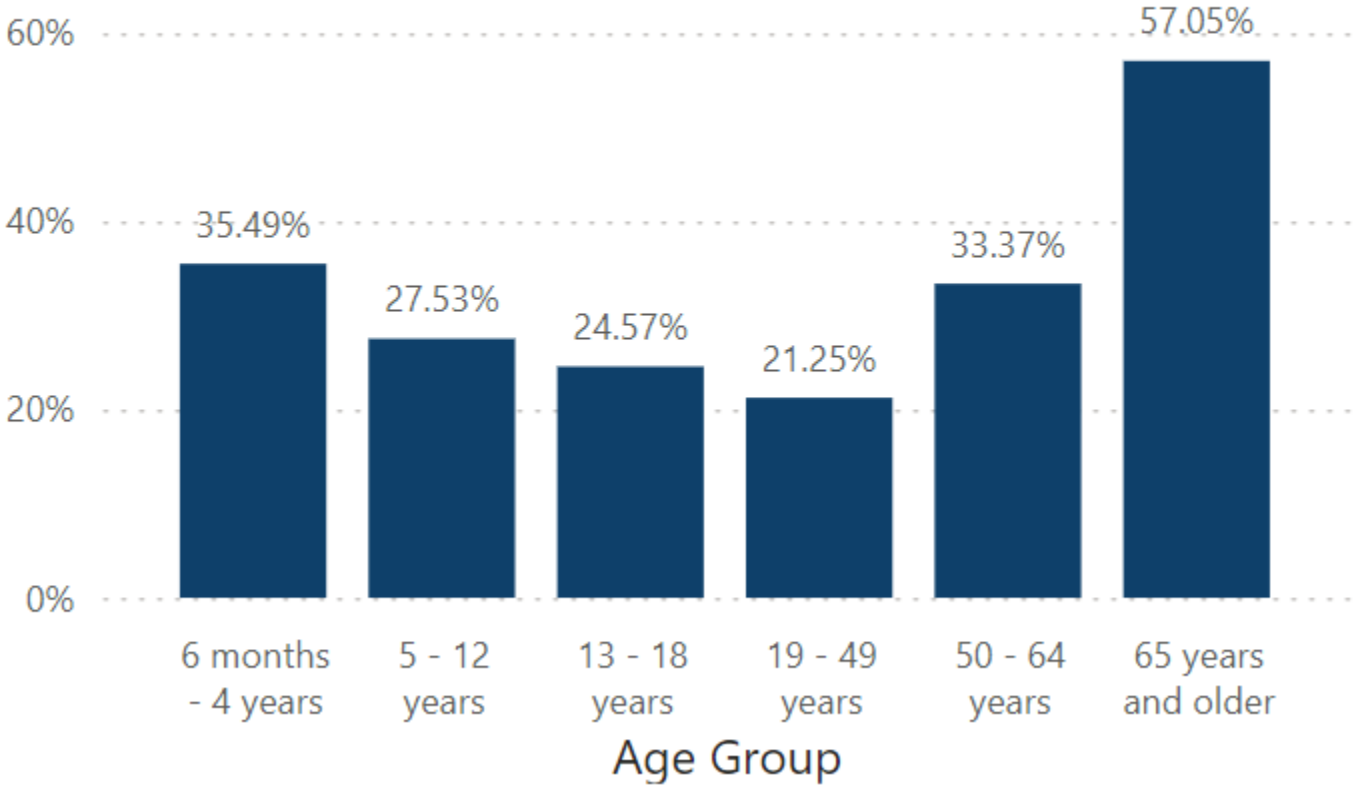
ad AMA CDC

Influenza

- During the 2021-2022 Influenza season, health care worker vaccination coverage was 79.9%.
- Influenza vaccination coverage was lower among nurses (87.8%), other clinical personnel (87.8%), nonclinical health care personnel (75.7%), and assistants and aides (68.8%) compared with coverage among physicians (96.8%).
- Influenza vaccination coverage during 2021-2022 was highest among health care personnel working in hospitals (92.0%) and lowest among those working in LTC settings (66.4%).
- Coverage was higher among health care personnel who reported an employer requirement for influenza vaccination (96.8%) than among those who reported an employer recommendation (76.5%) or no recommendation or requirement for vaccination (48.1%).

Statewide Flu Coverage for 2023-24 Season

Statewide Flu Coverage for 2023-24 Season



Meningococcal Conjugate

KNOW THE RISKS:
Meningitis

Meningitis happens quickly and can be hard to diagnosis at first.


The longer it goes untreated, the more serious the complications – including death within 24 hours.

Even with treatment...

1 in 5 people will have **permanent disability**:



and 1 in 10 people will **die**:



The lasting effects of meningitis are devastating.
Why take the risk?

Don't let anyone tell you different:
The vaccine is **ALWAYS** safer than the disease.

voices
for vaccines

- Health care personnel meeting the following requirements should receive a single dose on MenACWY and a booster every five years while they remain at increased risk.
- Health care professionals traveling to work to high-risk areas should receive a single dose of MCV4 before travel if they have never received it or if they received it >5 years previously.
- Clinical microbiologists and research microbiologists who might be exposed routinely to isolates of *N. meningitides* should receive a single dose of MCV4 and receive a booster dose every 5 years if they remain at increased risk.

Meningococcal B

- Microbiologists routinely exposed to *Neisseria meningitidis* are recommended to receive Meningococcal B vaccine:
 - Give either 2 dose (Bexsero®) or 3 dose (Trumemba®) primary series.
 - Booster dose given 1 year after primary series
 - Revaccinate every 2-3 years if risk remains.

Hepatitis B

All Health care workers (and all adults 19-59), complete a 2 or 3, or 4-dose series:

- 2-dose series
 - Only applies when 2 doses of Heplisav-B® are used at least 4 weeks apart
 - Heplisav-B® is not recommended in pregnancy.
- or 3-dose series
 - Engerix-B®, PreHevbrio®, or Recombivax HB® at 0, 1, 6 months
 - Minimum intervals: Dose 1 to Dose 2: 4 weeks / Dose 2 to Dose 3: 8 weeks / Dose 1 to Dose 3: 16 weeks
 - PreHevbrio® is not recommended in pregnancy.
 - HepA-HepB (Twinrix®) at 0, 1, 6 months
 - Minimum intervals: Dose 1 to Dose 2: 4 weeks / Dose 2 to Dose 3: 5 months
- or 4-dose series
 - HepA-HepB (Twinrix®) accelerated at 0, 7, and 21-30 days, followed by a booster dose at 12 months

Summary of 2023 HBV screening and testing recommendations

Universal Hepatitis B (HBV) Screening – NEW

Recommendations:

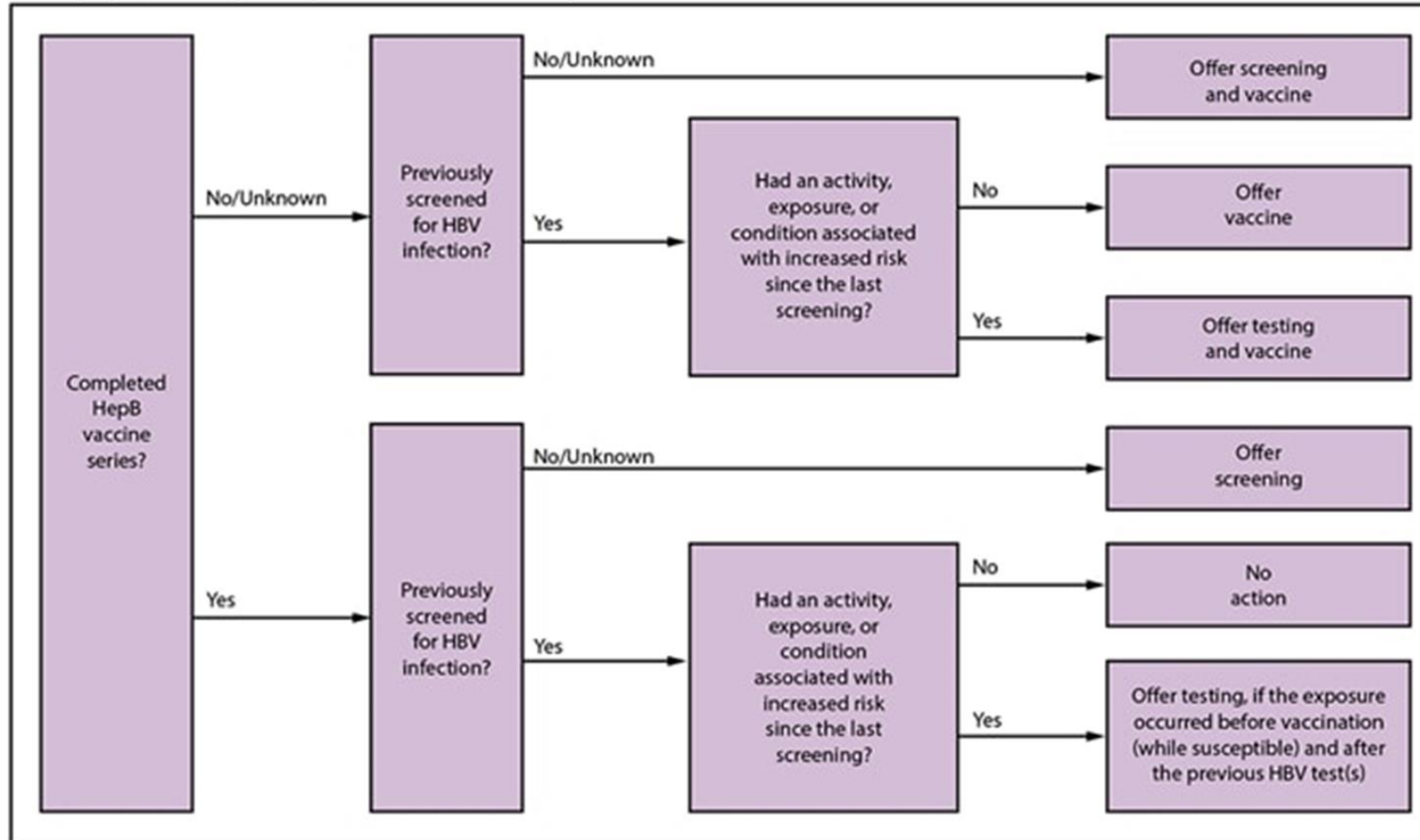
- All adults 18 and older at least once in their lifetime using a triple panel test
- Pregnant people during each pregnancy
- People who are at ongoing risk for exposure should be tested periodically
- Anyone who requests HBV testing should be tested

B AWARE



Incorporating Hepatitis B Virus Screening and Testing into Clinic Workflow

A. Nonpregnant adults aged ≥18 years without a known history of HBV infection



Interpreting Hepatitis B Blood Test Results

Interpretation & Action Needed	HBsAg Hepatitis B Surface Antigen	HBsAb (anti-HBs) Hepatitis B Surface Antibody	HBcAb (anti-HBc) Hepatitis B Core Antibody
<p>Not Immune – Not Protected Has not been infected, but still at risk for possible hep B infection Vaccine is needed.</p>	-	-	-
<p>Immune Controlled – Protected Surface antibodies present due to natural infection. Has recovered from a prior hepatitis B infection. Cannot infect others. No vaccine is needed.</p>	-	+	+
<p>Immune - Protected Has been vaccinated. Does not have the virus and has never been infected. No vaccine is needed.</p>	-	+	-
<p>Infected Positive HBsAg indicates hepatitis B virus is present. Virus can spread to others. Find a doctor who is knowledgeable about hepatitis B for further evaluation. More Testing Needed.</p>	+	-	+

Which health care personnel need serologic testing after receiving a HepB vaccine series?

- All personnel, including trainees, who have a high risk of occupational percutaneous or mucosal exposure to blood or body fluids (for example, personnel with direct patient contact, those at risk of needlestick or sharps injury, laboratory workers who draw, test or handle blood specimens) should have postvaccination testing for antibody to hepatitis B surface antigen (anti-HBs).
- Postvaccination testing should be done 1–2 months after the last dose of vaccine.
- Postvaccination testing for individuals at low risk for mucosal or percutaneous exposure to blood or body fluids (for example, public safety workers and health care personnel without direct patient contact) likely is not cost-effective.

How often should I test health care personnel after they've received the HepB vaccine series to make sure they're protected?

- For immunocompetent health care personnel, periodic testing or periodic boosting is not needed.
- Postvaccination testing (anti-HBs) should be done 1–2 months after the last dose of the HepB series. If adequate anti-HBs (at least 10 mIU/mL) is present, nothing more needs to be done. This information should be made available to the employee and recorded in the employee's health record.

What should be done if a healthcare professional's post-vaccination anti-HBs test is negative (less than 10 mIU/mL) 1-2 months after the last dose of vaccine?

There are two options for healthcare professionals who test negative after completing their first HepB series.

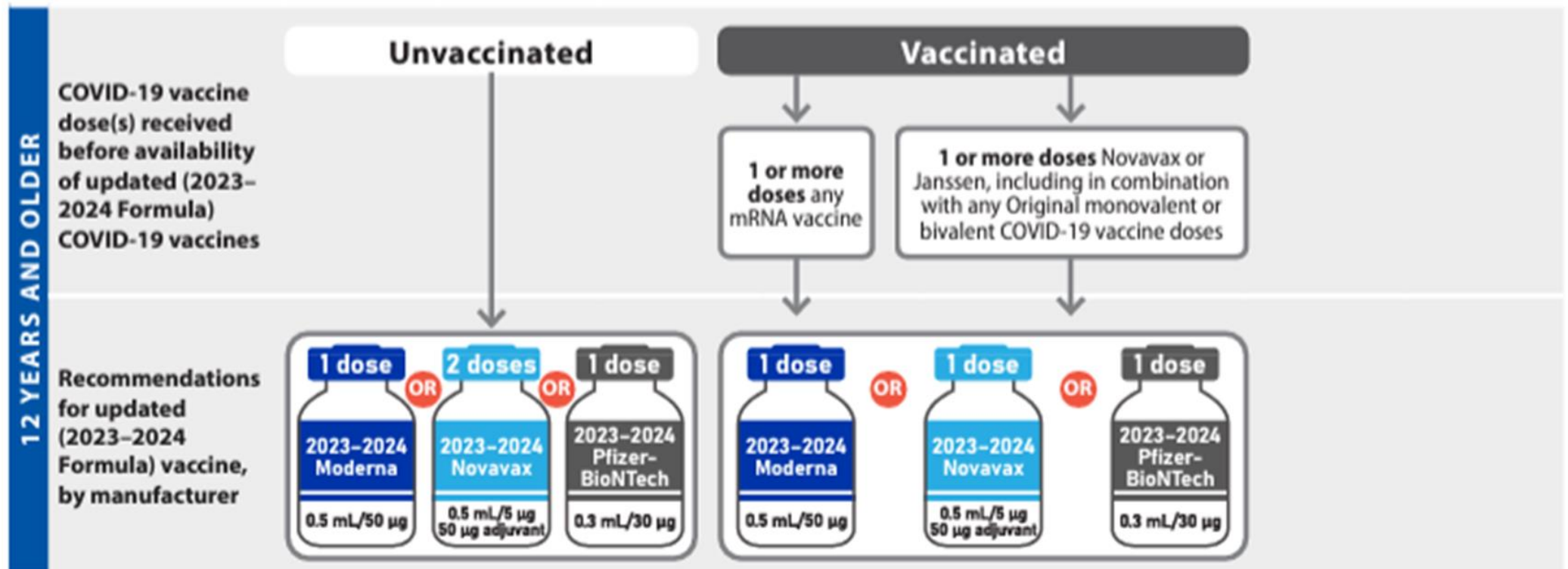
- Give one dose of HepB, then retest for anti-HBs.
 - If positive they are considered immune
 - If negative, person should receive the remaining doses in the series; then retest for anti-HBs.
 - If the result is positive, the person should be considered immune.
 - If negative, the person should be tested for HBsAg and total anti-HBc to determine their HBV infection status
- Repeat the 2- or 3-dose series (depending on vaccine brand) and test for anti-HBs 1–2 months after the final dose of the repeat series.
 - If positive, they are considered immune.
 - If the test is still negative after a second vaccine series, the person should be tested for HBsAg and total anti-HBc to determine their HBV infection status.

What should be done if a healthcare professional's postvaccination anti-HBs test is negative (less than 10 mIU/mL) 1–2 months after the last dose of vaccine?

- People who test negative for HBsAg and total anti-HBc should be considered vaccine non-responders and susceptible to HBV infection. They should be counseled about precautions to prevent HBV infection and the need to obtain hepatitis B immune globulin (HBIG) prophylaxis for any known or likely exposure to HBsAg-positive blood.
- Those found to be HBsAg negative but total anti-HBc positive were infected in the past and require no vaccination or treatment.
- If the HBsAg and total anti-HBc tests are positive, the person should receive appropriate counseling for preventing transmission to others as well as referral for ongoing care to a specialist experienced in the medical management of chronic HBV infection.

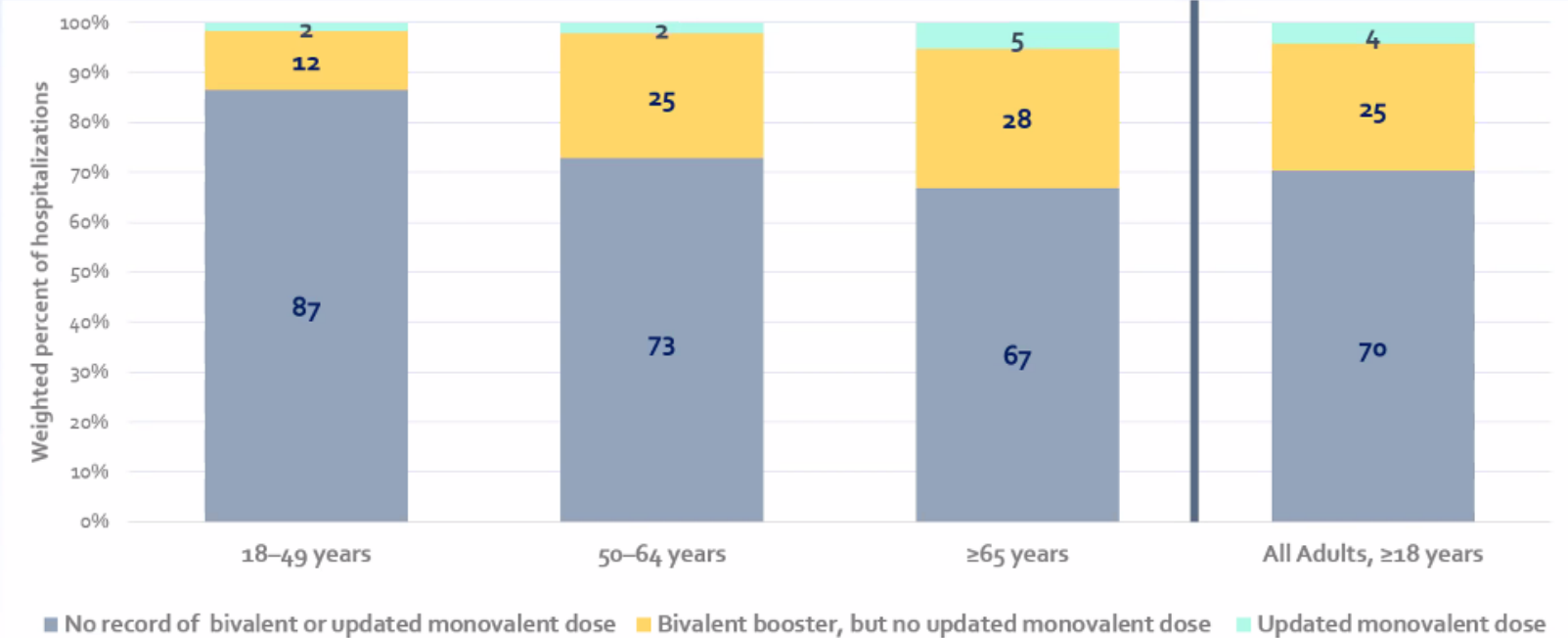
COVID-19 Vaccine

- Everyone ages 5 years and older is recommended to receive 1 dose of a 2023–2024 COVID-19 vaccine



COVID-19 Epidemiology

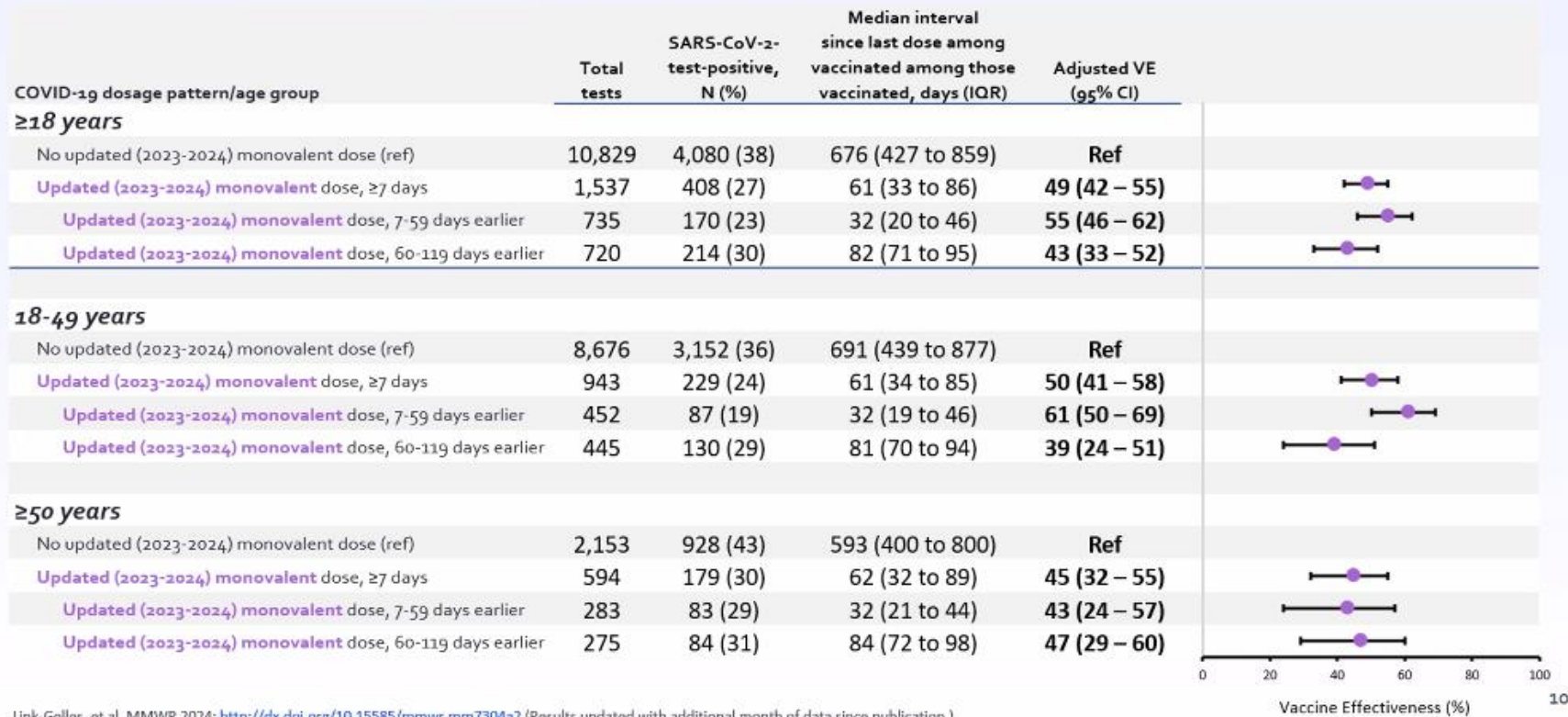
COVID-19 Vaccination Status by Age Group among Adults Ages ≥ 18 Years
 Hospitalized with COVID-19 — COVID-NET, October–November 2023 (Preliminary)



No record of bivalent or updated monovalent dose: No recorded doses of COVID-19 bivalent or updated 2023-2024 monovalent dose. **Bivalent booster, but no updated monovalent doses:** Received COVID-19 bivalent booster vaccination but no record of receiving updated 2023-2024 monovalent booster dose. **Updated monovalent dose:** Received updated 2023-2024 monovalent

COVID-19 Vaccine Effectiveness

ICATT: VE of 2023-2024 COVID-19 vaccine against *symptomatic infection* among adults aged ≥18 years, by age group and time since dose September 2023 – February 2024



Link-Gelles, et al. MMWR 2024: <http://dx.doi.org/10.15585/mmwr.mm7304a2> (Results updated with additional month of data since publication.)

Measles Mumps Rubella (MMR) – health care worker recommendations

All health care workers (regardless of year born) should have evidence of immunity to measles, mumps or rubella.

- 1 dose if previously received 1 MMR vaccine
- 2-dose series 4–8 weeks apart if previously did not receive any doses of MMR.

Evidence of immunity:

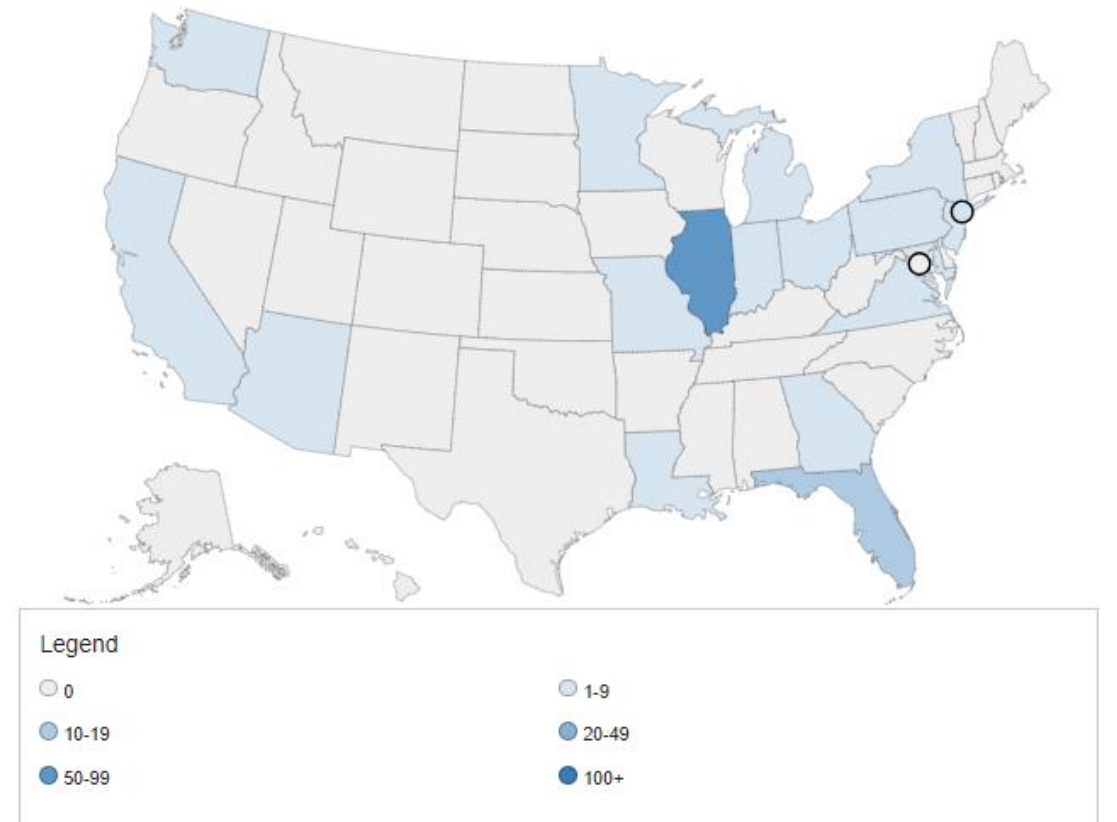
- Born before 1957 (unless a health care worker)
- Documentation of receipt of MMR vaccine,
- Laboratory evidence of immunity or disease

Measles in the United States in 2024

- As of April 18, 2024, a total of **125** measles cases were reported by 18 jurisdictions.
 - 54% of cases have been hospitalized.
 - 83% unvaccinated or have an unknown status.
 - 46% of cases are under 5 years old.

Measles Cases in 2024

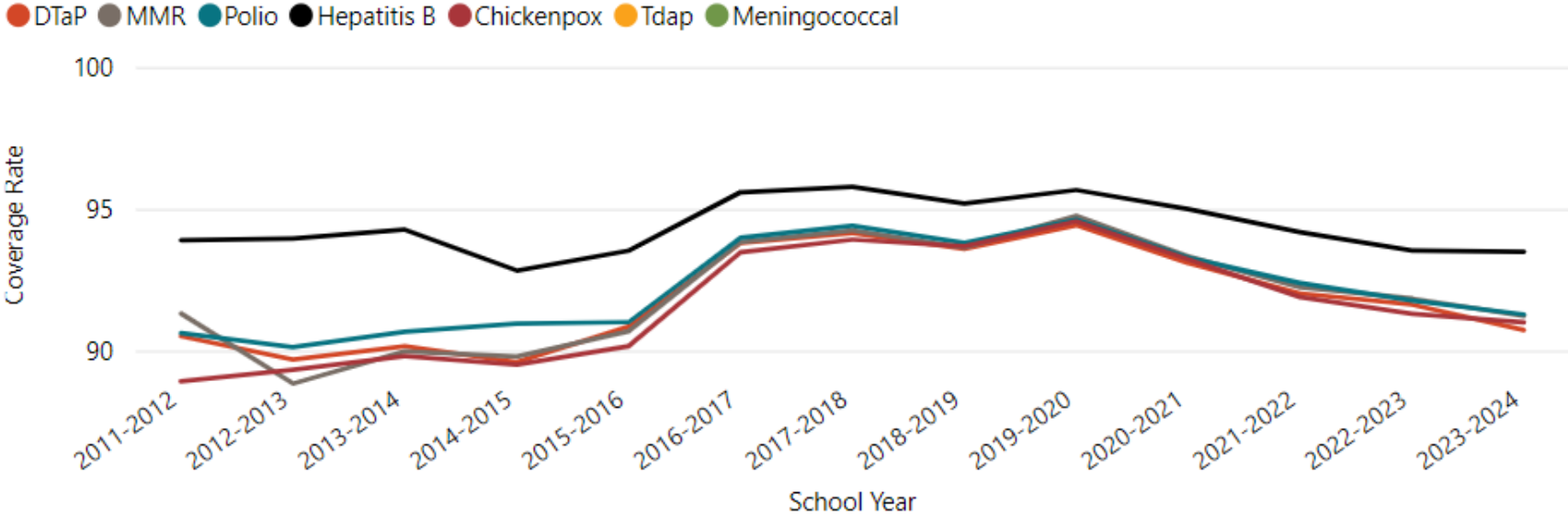
as of April 18, 2024



Kindergarten Immunization Rates and Trends 2023-2024

Vaccine	Coverage Rate
MMR	91.22%
DTaP	90.72%
Polio	91.27%
Hepatitis B	93.48%
Varicella	90.99%

Coverage Rates for all Required Vaccines

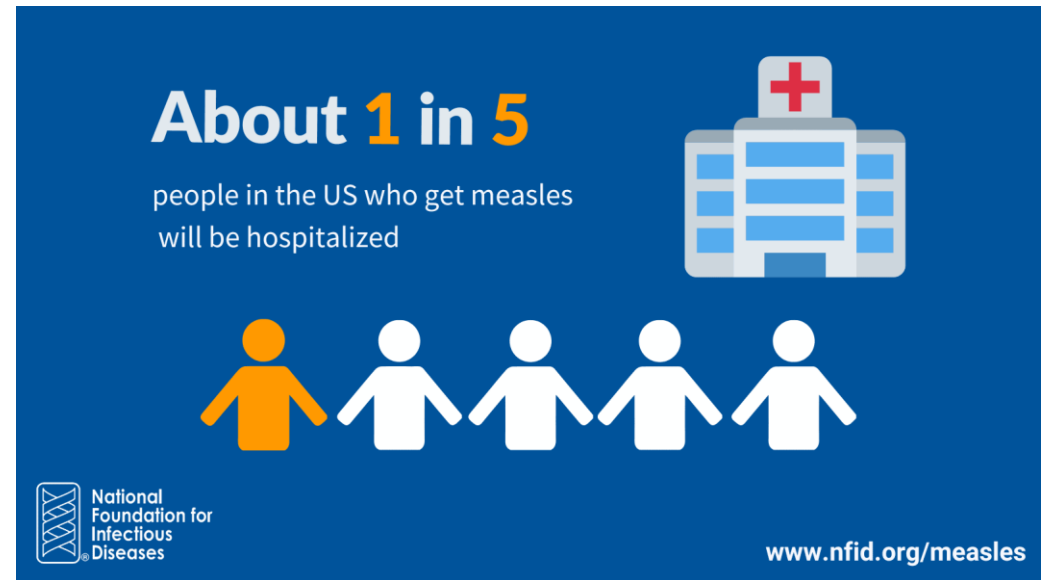


Limit exposure to your patients and staff

- Have receptionists ask patients measles screening questions at intake. If patients have symptoms of measles (febrile rash) and/or recent travel abroad, **room the patient as soon as possible after check-in.**
- Have staff working with suspect measles patients use N-95 masks. Other patients and individuals may use surgical masks, since N-95 masks will be of limited use without a prior fit test.
- Use a negative pressure room, if available.
- Sanitize any rooms or space that a suspect or confirmed measles case has been and do not use the room for a minimum of **TWO HOURS** after its use.
- Consider implementing drive-up testing or have contingency plans for testing patients outdoors or in their vehicle when weather allows.

Measles Prevention Activities

- Conduct reminder/recall for patients who are behind on the MMR vaccine.
- Host convenient vaccination clinics to get patients up to date.
- Start preparing now for the possibility of measles cases. Update policies and make sure staff know what to look for and what to do with a possible measles case.





THANK YOU!



Health & Human Services

PLEASE email any questions to VACCINE@ND.GOV with any questions