

Occupational Health: Long Term Care Facilities March 2026

Elaine Marshall RN BSN MHA CEN

Director Employee Health Occupational Health UNC NC Health



1



Disclosures



- No financial relationships to disclose
- No off-label or investigational use of medications and/or devices
- The information and views set out in this presentation are those of the author and do not necessarily reflect the official opinion of the University of North Carolina at Chapel Hill or UNC Health

2



Objectives



- ACIP Updates
- Vaccines for HCPs (Pre-exposure prophylaxis)
- Post-exposure prophylaxis (Bloodborne Pathogens)
- COVID-19
- Employee Well-Being

3



ACIP Updates

Advisory Committee on Immunization Practices



4

ACIP April 2022 Update



- Hepatitis B Vaccines are now universally recommended for all adults aged 19 – 59 years old instead of based solely on risk factors. This reflects the rising cases of Hepatitis B since the nadir in 2014 and acknowledges that risk-based intervention misses people reluctant to disclose.
- Also note that ACIP recommendations for Hepatitis B screening were updated in March 2023 to include testing at least once per lifetime in addition to risk factor-based testing

5

ACIP Update



- General Update ACIP recommendations should be reviewed alongside other published recommendations
- With the ongoing lack of regularly scheduled meetings and reviews it has become necessary to look for resources that provide timely guidance.
 - *“With no current CDC Director and pending confirmation of a new CDC Director, these recommendations were adopted by the HHS Secretary on July 22, 2025, and are now official recommendations of the CDC.”*

6

ACIP June 2022 Update



- **JYNNEOS for Monkeypox**
 - Two vaccines (JYNNEOS and ACAM2000) for orthopoxviruses (including MPX and smallpox). JYNNEOS w/ much less contraindications.
 - Pre- or post- exposure prophylaxis indications based on risk factors (generally intimate, prolonged contact)
 - Most healthcare workers do not need to get this vaccine. Exceptions include HCPs w high risk exposure (caring for +pt for prolonged period without PPE) and lab personnel handling specimens

<https://www.cdc.gov/mmwr/volumes/71/wr/mm7122e1.htm>

7

ACIP June 2025 Update



- **Influenza**
 - ACIP reaffirms the recommendations for routine annual influenza vaccination of all persons aged ≥ 6 months who do not have contraindications for the 2025-2026 season.
 - ACIP recommends only single-dose formulations of annual influenza vaccines that are free of thimerosal as a preservative for three populations:
 - Children 18 years or younger
 - Pregnant women
 - All adults

As of July 23, ACIP vote Thimerosal will be removed from all influenza vaccines – was only being utilized in multidose vials.

8

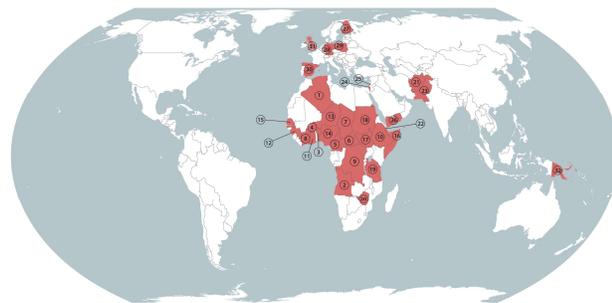
ACIP June 2023/2024 Update

- RSV Vaccine (Abrysvo or Arexvy)
 - Single dose (for now), high efficacy over two RSV seasons
 - Can be coadministered with other vaccines
 - Adults 75+
 - Adults 60 – 74 at higher risk for severe illness and hospitalization
 - Got rid of shared decision-making
 - Abrysvo is also recommended for pregnant people 32 – 36 wks GA from Sept – Jan
 - When vaccinating nonpregnant adults, it should be done year-round (in contrast with pregnant people and babies only during RSV season)
 - Not affirmatively recommended for healthcare workers at this time unless they fall into another category

9

ACIP Polio

- Polio
 - New: Unvaccinated or partially vaccinated adults should complete primary series
 - Case of polio in 2022 in NY in an unvaccinated adult prompted this new recommendation
 - Unchanged: Fully vaccinated adults with exposure risk (travel to endemic area, etc) should get one booster
 - Current Implications – with the dissolution of USAID. Polio programs in many countries were discontinued and now seeing rising case numbers



Polio THN

AFRICA

1. Algeria
2. Angola
3. Benin
4. Burkina Faso
5. Cameroon
6. Central African Republic
7. Chad
8. Cote d'Ivoire
9. Dem. Rep. of the Congo
10. Ethiopia

11. Ghana

12. Guinea
13. Niger
14. Nigeria
15. Senegal
16. Somalia
17. South Sudan
18. Sudan
19. Tanzania
20. Zimbabwe

EASTERN MEDITERRANEAN

21. Afghanistan
22. Djibouti
23. Pakistan
24. Gaza
25. Israel
26. Yemen

EUROPE

27. Finland
28. Germany
29. Poland
30. Spain
31. United Kingdom

WESTERN PACIFIC

32. Papua New Guinea

Poliovirus detected within the last 12 months

Names and boundary representation are not necessarily authoritative.

<https://www.cdc.gov/mmwr/volumes/72/wr/mm7249a3.htm>

10

ACIP June 2024 Update



- **Pneumococcal Vaccines**
 - New availability of PCV21 (Merck Sharp & Dohme Corp.)
 - Don't forget PCV15 and PCV20 were approved in 2022.
 - PCV21 is interchangeable with PCV20, unless you are in the Western US where preference is PCV20 since it has serotype 4.
 - PCV13 is gone, and PPSV23 is really only used in conjunction with PCV15. Easiest is if you get either PCV20 or PCV21 on formulary.
 - Not affirmatively recommended for healthcare workers at this time unless they fall into another category

https://www.cdc.gov/mmwr/volumes/73/wr/mm7336a3.htm?s_cid=mm7336a3_w

11

ACIP June 2024 Update



Adults ≥65 years old
Complete pneumococcal vaccine schedules

Prior vaccines	Option A	Option B
None*	PCV20 or PCV21	PCV15 → ≥1 year [†] → PPSV23 [‡]
PPSV23 only at any age	→ ≥1 year → PCV20 or PCV21	→ ≥1 year → PCV15
PCV13 only at any age	→ ≥1 year → PCV20 or PCV21	→ ≥1 year [†] → PPSV23
PCV13 at any age & PPSV23 at <65 yrs	→ ≥5 years → PCV20 or PCV21	→ ≥5 years [§] → PPSV23

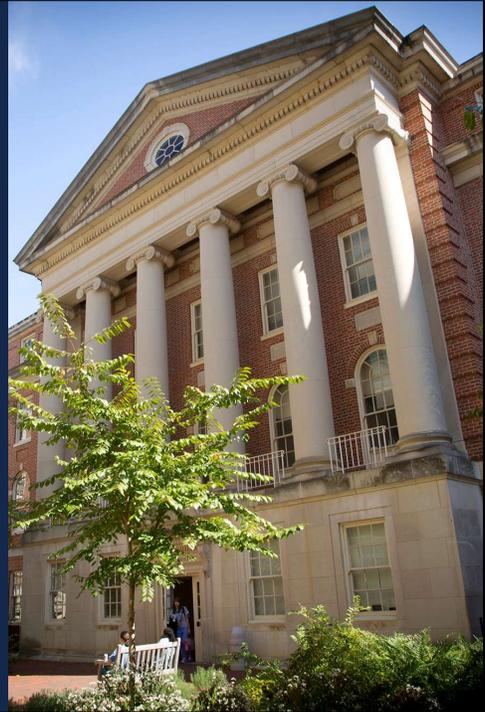
* Also applies to people who received PCV7 at any age and no other pneumococcal vaccines
 † If PPSV23 is not available, PCV20 or PCV21 may be used
 ‡ Consider minimum interval (8 weeks) for adults with an immunocompromising condition, cochlear implant, or cerebrospinal fluid leak (CSF) leak
 § For adults with an immunocompromising condition, cochlear implant, or CSF leak, the minimum interval for PPSV23 is ≥8 weeks since last PCV13 dose and ≥5 years since last PPSV23 dose; for others, the minimum interval for PPSV23 is ≥1 year since last PCV13 dose and ≥5 years since last PPSV23 dose

See CDC for guidelines on adults 19-64 with chronic conditions
<https://www.cdc.gov/pneumococcal/downloads/Vaccine-Timing-Adults-JobAid.pdf>

12



Vaccines Indicated for Healthcare Personnel



13

HCP Vaccination Recommendations



Vaccination	Recommendation
COVID-19	Everyone 6 months+ should get one dose of newest formulation (came out Fall of 2025 but did require attestation from patient for underlying condition requiring it)
Hepatitis B	If no prior dose, either 2 doses of Hepsivax-B or 3-dose series of either Engerix or Recombivax Obtain serology 1-2 months after final dose
Influenza	Give 1 dose annually
MMR	HCP born in 1957 or later need 2-doses of MMR, 4 weeks apart if no prior immunity or vaccination. Before 1957, consider serology testing and dosing if needed
Varicella	If no prior infection, serologic immunity, prior vaccination, give 2 doses of varicella vaccine 4 weeks apart
Tetanus, diphtheria, pertussis	Give 1 dose to all who have not received previously. Each pregnancy. Booster every 10 years (Td or Tdap)
Meningococcal	Routinely to microbiologists/Technicians exposed to isolates of <i>N. Meningitidis</i>

<https://www.cdc.gov/vaccines-adults/recommended-vaccines/index.html>

14

COVID Vaccines

Is it not required anymore for healthcare personnel?

- The federal CMS regulation, which had required all HCPs to be covid vaccinated, has been retired. Individual hospitals, LTC companies, etc can decide to have it be an internal condition of employment if they wish. CMS no longer requires reporting of HCPs' vaccination rates.
- Yes, it is safe to receive COVID, flu and RSV shots at the same time!
- Make it as easy as possible for your staff and residents to get the latest COVID shots



15

Hepatitis B

- **Indications**
 - Universal; HCP with potential blood exposure (OSHA required offering OR signed refusal)
- **Administration**
 - Prior to administration do not routinely perform serologic screening for HB unless cost effective
 - After last dose in the series, test for immunity (>10 mIU/mL); if inadequate provide one more series and test again for immunity; if inadequate test consider as "non-responder"
 - If non-immune after two series, test for HBsAg

16

Hepatitis B



- HEPLISAV-B approved in late 2017
- Nonpregnant adults > 18 years of age
- Two doses one month apart
- Not studied in hemodialysis patients

Table 7
Study 3: Seroprotection Rates of HEPLISAV-B and Engerix-B^a
(ages 18 - 70 years)

Age (years)	HEPLISAV-B ^a		Engerix-B ^a		Difference in SPRs (HEPLISAV-B minus Engerix-B) Difference (95% CI)
	N	SPR (95% CI)	N	SPR (95% CI)	
	18-29	174	100.0% (97.9, 100.0)	99	93.9% (87.3, 97.7)
30-39	632	98.9% (97.7, 99.6)	326	92.0% (88.5, 94.7)	6.9% (4.2, 10.4)*
40-49	974	97.2% (96.0, 98.2)	518	84.2% (80.7, 87.2)	13.1% (9.9, 16.6)*
50-59	1439	95.2% (94.0, 96.3)	758	79.7% (76.6, 82.5)	15.5% (12.6, 18.7)*
60-70	1157	91.6% (89.9, 93.1)	588	72.6% (68.8, 76.2)	19.0% (15.2, 23.0)*

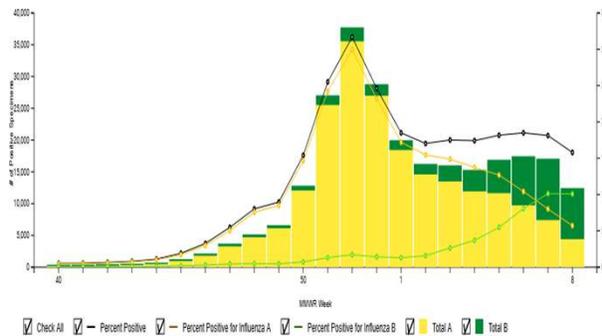
<https://www.fda.gov/downloads/BiologicsBloodVaccines/Vaccines/ApprovedProducts/UCM584762.pdf>

17

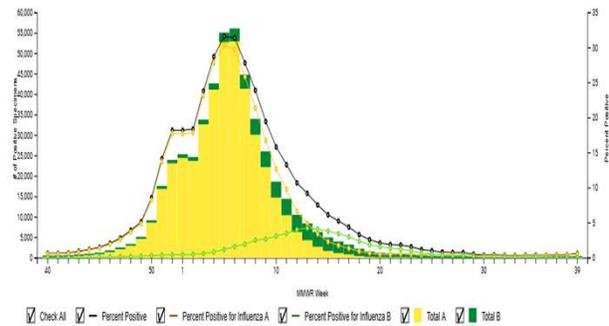
Influenza Season 24-25 and current



Influenza Positive Tests Reported to CDC by Clinical Laboratories, National Summary, 2025-26 Season, week ending Feb 28, 2026
Reported by U.S. Influenza (WIS) Collaborating Laboratories and UNet



Influenza Positive Tests Reported to CDC by Clinical Laboratories, National Summary, 2024-25 Season, week ending Sep 27, 2025
Reported by U.S. Influenza (WIS) Collaborating Laboratories and UNet



Weekly U.S. Influenza Surveillance Report | CDC

18



Meet our **flu** FIGHTERS

#FIGHT FLU 

The graphic features three circular portraits of healthcare professionals: a woman with short hair, a man in a suit, and a woman with glasses and a stethoscope. The background is dark blue with a subtle grid pattern.

19



Centers for Disease Control and Prevention
MMWR | **ALL HEALTHCARE WORKERS NEED FLU VACCINES**

VACCINATING HEALTHCARE WORKERS	3 OF 4 HEALTHCARE WORKERS GET FLU VACCINES	WORKPLACE STRATEGIES CAN HELP!
 REDUCES FLU AMONG WORKERS  REDUCES WORK ABSENCES  PROTECTS PATIENTS	HIGHEST WHEN EMPLOYER REQUIRED VACCINE OR GAVE ONSITE  LOWEST FOR LONG-TERM CARE WORKERS	 PROMOTE ON-SITE VACCINATION  OFFER LOW OR NO COST VACCINES  REMEMBER NON-CLINICAL STAFF

20

Influenza vaccines



- ACIP recommendations
 - One annual dose for all persons \geq 6 months of age (sometimes 2 doses for kids)
 - Required for residents and HCP in ECFs in NC (1 N.C. Gen. Stat. Ann. § 131E-113(a))
 - Required in SC LTC (S.C. Code Ann. Regs. 61-17)

<https://www.cdc.gov/flu/pdf/professionals/acip/acip-2021-22-summary-of-recommendations-updated.pdf>

[Long-term-care-toolkit.pdf \(cdc.gov\)](#)

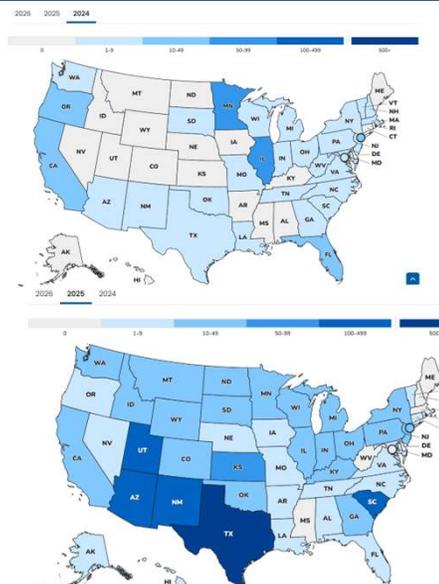
21

Measles is back



U.S. Cases

	2026 To date	2025 Full year
Total Cases	1281	2283
Age		
Under 5 years	291 (23%)	584 (26%)
5-19 years	698 (54%)	1014 (44%)
20+ years	286 (22%)	672 (29%)
Age unknown	6 (0%)	13 (1%)
Vaccination Status		
Unvaccinated or Unknown	93%	93%
One MMR dose	4%	3%
Two MMR doses	4%	4%



22

Measles in NC



24

Number of Cases Since
December 2025

0

Newly Reported Cases
Cases reported since last update

1

Total Cases Hospitalized
December 2025

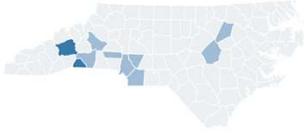
[What is a case? / More details about the data](#)

NC Exposure Locations

What to Do if You Were Exposed

Cases Since December 2025

Cases by County



For Residents and Visitors

Measles cases are rising in NC. Cases mostly affected people who are not vaccinated.

- Everyone 1 year and older should MMR vaccines.
- Parents and health care providers talk about early MMR vaccination.

NC Measles Outbreaks

If you suspect a case of measles in your facility, call your local health department or NC Epi On Call 919-733-3419 IMMEDIATELY 24/7 (not days or hours later)

Highly contagious: 9 out of 10 susceptible (not immune) people who are exposed will contract measles

23

Measles, Mumps, Rubella (MMR)



- Measles**
 - Born before 1957: Consider immune (except during outbreak): Born after 1957: 2 doses
 - Immunity = Appropriate immunizations or positive serology
- Mumps**
 - Born before 1957: Consider immune (except during outbreak): Born after 1957: 2 doses.
 - 3rd dose considered in outbreak settings.
 - Immunity = Appropriate immunizations or positive serology
- Rubella**
 - 1 dose of MMR
 - Immunity = Appropriate immunizations or positive serology

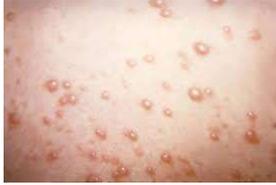



24

Varicella



- **Special consideration should be given to those who have close contact with**
 - Persons at high risk for severe disease (e.g., immunocompromised persons)
 - Persons are at high risk for exposure or transmission (e.g., teachers of young children, college students, military recruits, international travelers)
- **Immunity**
 - 2 doses of vaccine (gold standard), positive serology. Could also accept history of varicella if lab confirmed or epi-linked, but verbal report “I had chicken pox as a kid” doesn’t count.
 - Receiving Shingrix vaccine does not count as immunity for varicella




<https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6007a1.htm>

25

Varicella



During the first 25 years,* the U.S. chickenpox vaccination program has **PREVENTED an estimated:**

- 91 million** CASES
- 238,000** HOSPITALIZATIONS
- 2,000** DEATHS

*The U.S. chickenpox vaccination program started in 1995.

THEN	NOW
EACH YEAR	
MORE THAN 4 million chickenpox cases	FEWER THAN 150,000 chickenpox cases
MORE THAN 10,000 hospitalizations	FEWER THAN 1,400 hospitalizations
UP TO 150 deaths	LESS THAN 30 deaths

26

Tetanus-diphtheria-acellular pertussis (Tdap)



- **Substitute 1 dose Tdap for all adults when Td booster due if no history of Tdap.**
 - May be used to provide tetanus PEP
 - Provide to all adults with exposure to young children (no delay after Td)
 - Also recommended for pregnant people in each pregnancy (preferably 27-36 weeks gestational age)
 - Only one dose of Tdap is required, employees who are 10 years out from Tdap can be boosted with Td or Tdap (but preference is Tdap).

27

Meningococcal Vaccine

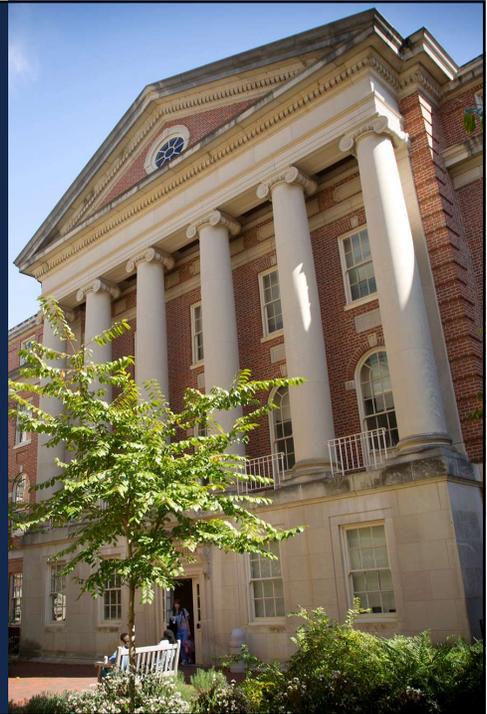


- Recommended for adults had high risk of disease (persistent complement deficiency, functional or anatomic asplenia, or HIV infection (adolescents)).
 - Two vaccines series are needed: MenACWY and Serogroup B (MenB)
- **MenACWY**
 - Immunosuppressed – 2 doses of MenACWY and boosters every 5 years, 2 or 3-dose MenB
 - **Microbiologists – 1 dose, booster every 5 years (MenACWY), 2 or 3-dose MenB**
 - **Now they could get the combo MenABCWY vaccine when both are indicated**
 - Anatomic/functional asplenia patients should be vaccinated against MenACWY/MenB

28



Tuberculosis Surveillance



29



TAKE ON TB

To eliminate tuberculosis (TB), we must prioritize groups at increased risk of TB

Living in congregate settings is a risk factor for TB disease:



Homeless Shelters



Correctional Facilities



Long-term Care Facilities

www.cdc.gov/tb



Centers for Disease Control and Prevention
National Center for HIV, Viral Hepatitis, STD, and TB Prevention

30

Testing/ Treatment



- **Baseline (preplacement) screening and testing.** All U.S. healthcare personnel should have baseline TB screening, including an individual risk assessment, which is necessary for interpreting any test result. IGRAs (quant gold or T spot) or TB skin tests can be used. Follow CDC algorithm for interpretation.
- **Serial screening and testing for health care personnel without LTBI is NOT indicated.** In the absence of known exposure or evidence of ongoing TB transmission, U.S. healthcare personnel (as identified in the 2005 guidelines) without LTBI should not undergo routine serial TB screening or testing at any interval after baseline (e.g., annually.) Could consider annual screening with high-risk groups like respiratory therapists.
- **Healthcare personnel with LTBI and no prior treatment** should be offered, and strongly encouraged to complete treatment with a recommended regimen, including short-course treatments unless a contraindication exists

Sosa LE, Njie GJ, Lobato MN, et al. Tuberculosis Screening, Testing, and Treatment of U.S. Health Care Personnel: Recommendations from the National Tuberculosis Controllers Association and CDC, 2019. MMWR Morb Mortal Wkly Rep 2019;68:439-443. DOI: <http://dx.doi.org/10.15585/mmwr.mm6819a3external icon>.

31

NC TB Policy Manual



- **SARS-CoV-2 Vaccine and TB testing**
 - TB screening with skin test or interferon gamma release assay may be performed regardless of timing of SARS-CoV-2 vaccination (and visa versa). – Jan 28 2021 memo
- **Patients in long term care facilities**
 - Testing upon admission (two-step TST or IGRA). Annual screening which can be accomplished by a verbal elicitation of symptoms.
 - 10A NCAC 41A .0205; 10A NCAC 13D .2202 & .2209
- **Long term care facility employees**
 - Testing upon employment (two-step for TST or IGRA) and after any exposures. Annual education & DFS regulations require an annual screening which can be accomplished by a verbal elicitation of symptoms.
 - 10A NCAC 41A .0205; 10A NCAC 13D .2202 & .2209; OSHA

<https://epi.dph.ncdhs.gov/cd/lhds/manuals/tb/COVIDvaxMemo01282021.pdf>

32

Fit Testing

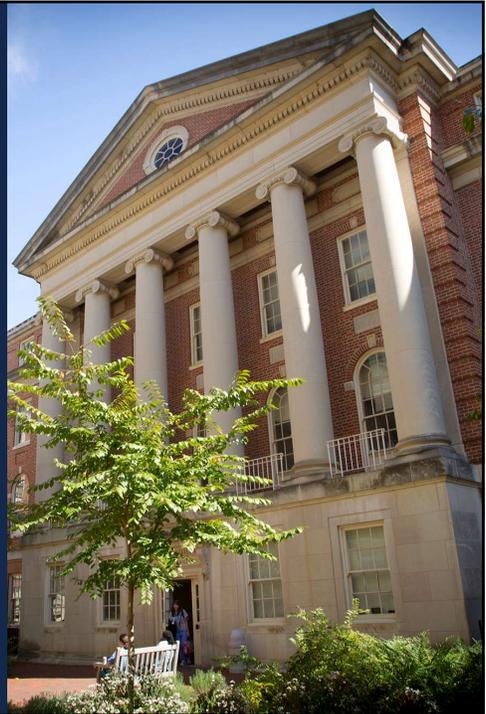


- If employees may need to wear respirators as part of their PPE (i.e. for caring for COVID patients), then they need to be annually fit tested through your respiratory protection program.
- Medical clearance for N95s is not complicated – there really aren't medical conditions which affirmatively preclude the use of an N95 except anatomical challenges.
- If someone can not be fit tested, do you have a plan for the alternative?

33



Bloodborne Pathogens



34

Bloodborne Pathogens



- Approximately 385,000 needle sticks and other sharps-related injuries to hospital-based healthcare personnel each year.
- 58 total known occupationally acquired HIV cases in HCPs; all but 1 were prior to 1999.
- 88% (50/57) of the documented cases of occupational HIV transmission from 1985-2004 involved a percutaneous exposure. Of those, 45/57 involved a hollow-borne needle.
- 41% of sharp injuries occur during use; 40% after use/before disposal; 15% during/after disposal

<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6353a4.htm>

35

Steps for Prevention



- Needleless devices
- Single-hand recapping
- Handwashing station
- Sharps containers
- Laundry
- Disposal of contaminated material
- Mask, eye protection, gloves, & face shields
- ACCOUNTABILTY AND AUDITS



36

OSHA Bloodborne Pathogens Standard



- Employers must establish a written exposure control plan and provide annual training
- Mandates use of **universal precautions** (all body fluids assumed contaminated except sweat)
- Employers must utilize engineering and work practice controls to minimize/eliminate exposure

(e-CFR 1910.1013)

<https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030>

37

OSHA Bloodborne Pathogens Standard



- Requires offering hepatitis B vaccine to persons with the potential for exposure
- Testing of exposed employees for Hepatitis B and HIV
- Post-exposure prophylaxis must be immediately available as per CDC guidelines
- **All work-related needle stick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material are OSHA-reportable regardless of the source patient disease status.**



(e-CFR 1910.1013)

38

Bloodborne Pathogens



Risk (percutaneous exposure)

- HBV**
- 22.0 – 30.0% (HBeAg⁺)
 - 1.0 – 6.0% (HBeAg⁻)

- HCV**
- 1.8%

- HIV**
- 0.3% (1 in 300)

Risk (mucous membrane)

- HBV**
- Yes (rate unknown)

- HCV**
- Yes (rate unknown but very small)

- HIV**
- 0.1% (1 in 1000)
 - < 0.1% (non-intact skin)



- Test source for hepatitis B (HBsAg), hepatitis C (HCV PCR), HIV (4th gen, HIV antibodies and p24 antigen)
- Provide hepatitis B prophylaxis, if indicated
- Provide follow-up for hepatitis C, if indicated
- If source HIV+ or at "high risk" for HIV, offer employee HIV prophylaxis per CDC protocol

CDC, 2003

39

Post-exposure Pathway



Infection Status of Source Patient ↓	Baseline Labs	2 Weeks	4 Weeks	6 Weeks	4 Months	6 Months
DATE: →	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__	__/__/__
HIV positive	HIV test - 4 th generation	Lab - only if baseline abnormal or clinical indication		HIV test - 4 th generation	HIV test - 4 th generation	
HBsAg positive	<ul style="list-style-type: none"> • If source positive and HCP unknown, need HBsAb. • If HBsAb ≥12 mIU/mL - testing complete. • If HBsAb <12 mIU/mL, need anti-HBc & HBsAg at baseline 					<ul style="list-style-type: none"> • Anti-HBc • HBsAg
Hepatitis C RNA PCR positive	Anti-HCV (Hepatitis C antibody)	Lab - only if baseline abnormal or clinical indication		HCV RNA PCR	Anti-HCV (Hepatitis C antibody)	
Unknown source	<ul style="list-style-type: none"> • HIV test - 4th generation • If source unknown and HCP HBsAb unknown, need HBsAb. • If HBsAb ≥12 mIU/mL - testing complete. • If HBsAb <12 mIU/mL, need anti-HBc & HBsAg at baseline • HCV antibody 	Lab - only if baseline abnormal or clinical indication		<ul style="list-style-type: none"> • HIV test - 4th generation • HCV RNA PCR 	<ul style="list-style-type: none"> • HIV test - 4th generation • Anti-HCV (Hepatitis C antibody) 	<ul style="list-style-type: none"> • Anti-HBc • HBsAg

40

Current HIV PEP



- 10A NCAC 41A .0202
- CONTROL MEASURES – HIV
 - When the source case is known, the attending physician or occupational health provider responsible for the exposed person shall notify the healthcare provider of the source case that an exposure has occurred.
 - This healthcare provider shall arrange HIV testing of the source person (unless known to be HIV+) and notify the OHS provider of the test results.
 - Source patient consent is **not required**

<http://reports.oah.state.nc.us/ncac/title%2010a%20-%20health%20and%20human%20services/chapter%2041%20-%20epidemiology%20health/subchapter%20a/10a%20ncac%2041a%20.0202.html>

41

Current HIV PEP



- Three-drug regiment
 - Tenofovir-emtricitabine (Truvada) + raltegravir (Isentress) for 4 weeks (28 days)
 - Other regiments are available for known HIV-source patients with specific drug resistance but these cases are rare.
 - Start within 72 hours
 - Baseline HIV, 6 weeks, 4-6 months
- Are there other drugs- YES – consider costs and compliance



Kuhar, D. T., Henderson, D. K., Struble, K. A., Heneine, W., Thomas, V., Cheever, L. W., Gornall, A., Panlilio, A. L., & US Public Health Service Working Group. (2013). Updated US Public Health Service Guidelines for the Management of Occupational Exposures to Human Immunodeficiency Virus and Recommendations for Postexposure Prophylaxis. *Infection Control and Hospital Epidemiology*, 34(9), 875–892. <https://doi.org/10.1086/672271>

42

Hepatitis B



- Universal; HCP with potential blood exposure (OSHA required or HCP may decline)
 - No need to routinely obtain Hep B titers if an employee has documented vaccine series and a positive titer
 - In practice, we usually titer and give a booster if titer is < 10 mIU/mL
 - For known non-responders, with exposure they should get Hepatitis B Immune Globulin (HBIG) within 24 hours (up to 7 days after exposure)

43

Hepatitis B

Postexposure Management of Health Care Personnel after Occupational Exposure to Blood and Body Fluids, by Health Care Personnel HepB Vaccination and Response Status

	HBsAg	Anti-HBc	HBsAb*
Acute infection	Positive	IgM positive	Negative
Infection resolved	Negative	IgG Positive	Positive
Chronic infection	Positive	IgG Positive	Negative
Vaccinated	Negative	Negative	Positive
Susceptible	Negative	Negative	Negative

Otero, William, Parga, Julián, & Gastelbondo, Johanna. (2018). Serology of hepatitis B virus: multiple scenarios and multiple exams. *Revista colombiana de Gastroenterología*, 33(4), 411-422. <https://doi.org/10.22516/25007440.327>

https://www.cdc.gov/pinkbook/hcp/table-of-contents/index.html?CDC_AAref_Val=https://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html#Epidemiology

HepB Vaccination and Response Status	Postexposure testing results for source patient (HBsAg)	Postexposure testing results for HCP (anti-HBs)	HBIG* postexposure prophylaxis	Vaccination postexposure prophylaxis	Postvaccination Serologic Testing ¹
Documented responder ³ after complete series (3 or more doses)	No action needed	No action needed	No action needed	No action needed	No action needed
Documented nonresponder ³ after 2 complete series	Positive/ unknown	**	2 doses HBIG separated by 1 month	No action needed	No action needed
	Negative	No action needed	No action needed	No action needed	No action needed
Response unknown after a complete series	Positive/ unknown	less than 10 mIU/mL**	1 dose HBIG	Initiate revaccination	Yes
	Negative	less than 10 mIU/mL	None	Initiate revaccination	Yes
	Any result	greater than or equal to 10 mIU/mL	No action needed	No action needed	No action needed
Unvaccinated/ incompletely vaccinated or vaccine refusers	Positive/ unknown	**	1 dose HBIG	Complete vaccination	Yes
	Negative	No action needed	None	Complete vaccination	Yes

*HBIG should be administered intramuscularly as soon as possible after exposure when indicated. The effectiveness of HBIG when administered greater than 7 days after percutaneous, mucosal, or nonintact skin exposures is unknown. HBIG and HepB vaccine should be administered in separate anatomic injection sites.

¹Should be performed 1 to 2 months after the last dose of the HepB vaccine series (and 4 to 6 months after administration of HBIG to avoid detection of passively administered anti-HBs) using a quantitative method that allows detection of the protective concentration of anti-HBs (greater than or equal to 10 mIU/mL).

³A responder is defined as a person with anti-HBs greater than or equal to 10 mIU/mL after 3 or more doses of HepB vaccine.

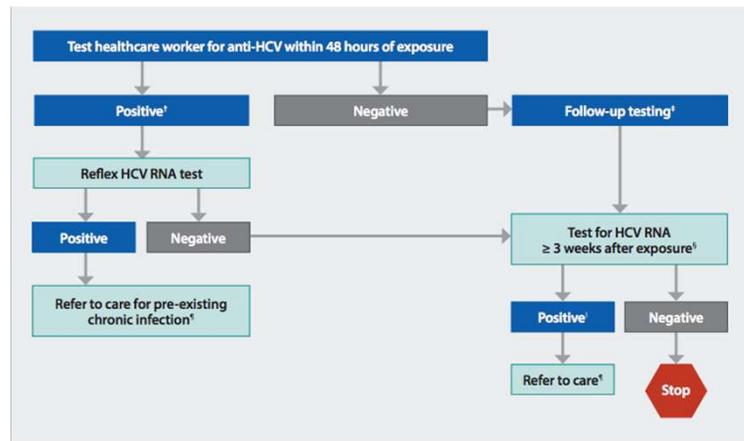
⁴A nonresponder is defined as a person with anti-HBs less than 10 mIU/mL after 2 complete series of HepB vaccine.

**HCP who have anti-HBs less than 10 mIU/mL, or who are unvaccinated or incompletely vaccinated, and sustain an exposure to a source patient who is HBsAg-positive or has unknown HBsAg status, should undergo baseline testing for HBV infection as soon as possible after exposure and follow-up testing approximately 6 months later. Initial baseline tests consist of total anti-HBc; testing at approximately 6 months consists of HBsAg and total anti-HBc.

44

Hepatitis C

- No post-exposure prophylaxis
- Source patients should be tested by Hep C PCR

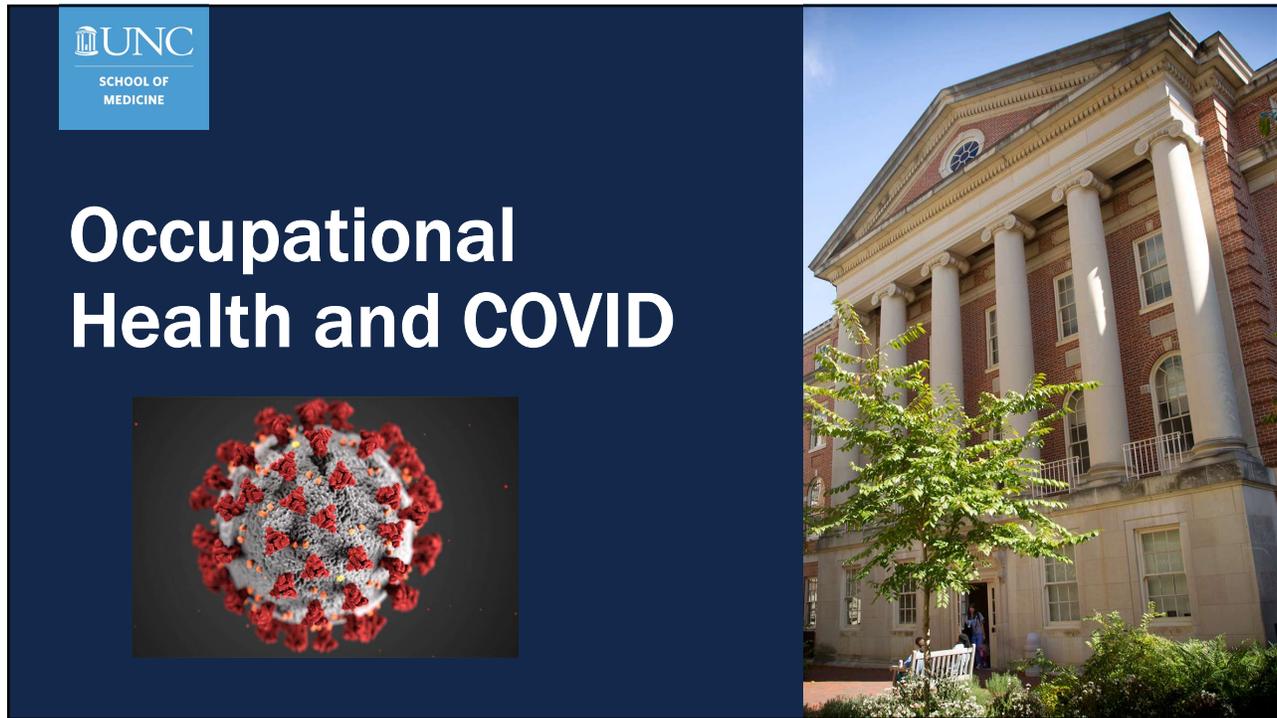


45

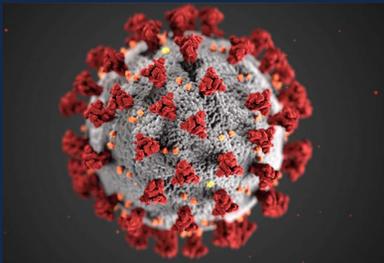
Follow-up Testing

- Hepatitis B
 - Not required if employee has immunity
- HIV
 - Dependent on source patient and available testing
- Hepatitis C
 - Dependent on source patient, test for HCV antibodies and HCV RNA

46



Occupational Health and COVID



47

COVID Presentations- How do we track?

Early Indicators

Test positivity (the percentage of total reported tests that are positive) and the percentage of total emergency department visits due to COVID-19 are key metrics to assess the impact of COVID-19 on communities. For public health professionals, these metrics act as early indicators of potential increases in COVID-19 activity.

% Test Positivity
4.7%
 Week ending 2026-02-14
 Previous Week 5.1%

Date	% Test Positivity
06/30/25	4.0%
09/10/25	3.5%
07/19/25	5.0%
09/27/25	11.5%
12/08/25	4.5%
03/14/26	5.1%

These early indicators represent a portion of national COVID-19 tests and emergency department visits. [Wastewater](#) information also provides early indicators of spread.

<https://covid.cdc.gov/covid-data-tracker/#datatracker-home>

Note the trends for COVID 19- trending during Summer months

NORTH CAROLINA WASTEWATER MONITORING NETWORK

Wastewater Monitoring Network will be updated every Wednesday
 Wastewater Data Collected: 1/3/2021 - 3/25/2026
 Updated on March 4, 2026

COVID-19
Influenza
RSV

Wastewater Utility Sewershed Boundaries and Metrics

Select Metric: COVID-19 Select Date for Metric on Map below: 03/03/2026

48

COVID Control Recommendations



Updated June 24 2024

- Encourage all employees to remain up to date on COVID-19 vaccines, including provision of resources
- Establish a process to identify and manage individuals with suspected or confirmed COVID
- Implement source control measures (changed from earlier recommendations)
- Implement universal use of personal protective equipment for HCP
- Optimize use of engineering controls and indoor air quality
- Perform SARS-CoV-2 viral testing
- Create a process to respond to COVID exposures among HCP and others

https://www.cdc.gov/covid/hcp/infection-control/?CDC_AAref_Val=https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html

https://www.cdc.gov/covid/hcp/infection-control/guidance-risk-assessment-hcp.html?CDC_AAref_Val=https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assessment-hcp.html

49

COVID Control Recommendations (In Flux)



- Establish a process to identify and manage individuals with suspected or confirmed COVID
 - For HCPs, they should report any of the following three criteria to your Occupational Health:
 - Positive test for COVID
 - Symptoms of COVID
 - HCPs with even mild symptoms need a test!
 - Positive antigen test (like a home test) is sufficient; no need to retest with PCR
 - Negative antigen test is NOT sufficient and needs confirmatory PCR
 - Don't forget about flu and RSV!
 - Should not be working until at least 24 hrs without fever of any cause off antipyretics
 - Close contact to COVID

https://www.cdc.gov/covid/hcp/infection-control/?CDC_AAref_Val=https://www.cdc.gov/coronavirus/2019-ncov/hcp/infection-control-recommendations.html

50

COVID-19+ HCP Return to Work CHANGE



NC DEPARTMENT OF
HEALTH AND
HUMAN SERVICES

JOSH STEIN • Governor
DEVDUITA SANGVAI • Secretary
DEBRA FARRINGTON • Deputy Secretary for Health
KELLY KIMPLE • Director, Division of Public Health

To: Healthcare Providers, Healthcare Facilities, Local Health Departments
From: Zack Moore, MD, MPH, State Epidemiologist
Subject: 2025-2026 Interim Guidance for the Management of Healthcare Personnel with Acute Respiratory Viral Infections (4 pages)
Date: September 18, 2025

For the upcoming respiratory season, the North Carolina Division of Public Health is providing interim guidance for the management of healthcare personnel with acute respiratory viral infections.

This guidance applies to healthcare personnel (HCP) with respiratory illness due to suspected or confirmed SARS-CoV-2, seasonal influenza, respiratory syncytial virus (RSV), or other common acute respiratory viral infections, regardless of whether diagnostic testing for viral pathogens is performed or the results of such testing. This guidance does not apply to HCPs with respiratory illness due to known or suspected infection with other pathogens for which distinct and specific public health guidance is available – e.g., novel Influenza A virus (including H5N1 avian influenza) or Middle East Respiratory Syndrome (MERS).

This guidance differs from the current CDC guidance, [Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2](#), and the section on the management of ill HCP contained within the CDC guidance document, [Infection Prevention and Control Strategies for Seasonal Influenza in Healthcare Settings](#). Several states throughout the country have developed very similar guidelines based on the drafted guidance presented by the Healthcare Infection Control Practices Advisory Committee (HICPAC) in November 2024.

HCP should be encouraged to stay up to date on vaccinations and follow healthcare facility policies for source control and use of personal protection equipment (PPE).

Questions about this guidance can be directed to the North Carolina Surveillance of Healthcare Associated and Resistant Pathogens Patient Safety Program (SHARPPS) at infectionprevention@dhhs.nc.gov.

“This guidance applies to all healthcare settings; however, it does not apply to nursing homes regulated under the NC Division of Health Service Regulation (DHSR) Nursing Home Licensure and Certification Section. These facilities are still required to develop and implement policies and procedures that are in line with currently posted CDC guidance.”

[NC DHSR Nursing Home Guidance](#)

51

Asymptomatic HCPs w COVID exposures



- For asymptomatic HCP who have a known or suspected exposure to a respiratory virus:
 - Work restrictions are not necessary.
 - HCP should wear source control from the day of first exposure through the 5th day after last exposure.***
 - HCP should monitor for development of signs or symptoms of a viral respiratory infection for 5 days after their last exposure.
 - o Any HCP who develops mild signs or symptoms of a viral respiratory infection should follow guidance as described in the “Mild Suspected or Confirmed Infection” section above.
 - ***Where day 0 is the day of last exposure.

52

Respiratory Illnesses on the Rise



- Presenteeism is a major threat to patient and employee health

“Stay home, save lives”: Characterizing sickness presenteeism among healthcare personnel during the COVID-19 pandemic

Background

Extreme demands on healthcare systems and services due to the SARS-CoV-2 pandemic have altered the workplace environment, potentially affecting sickness presenteeism, defined as presenting to work with symptoms of illness.

Previous literature on presenteeism has focused on chronic illness, job performance and/or economic costs for organizations. Little is known about upstream motivators for infectious illness presenteeism.

Methods

We surveyed 586 healthcare personnel (HCP) at a large, academic medical center in North Carolina about their experiences, perceptions and behaviors related to sickness presenteeism during the COVID-19 pandemic.

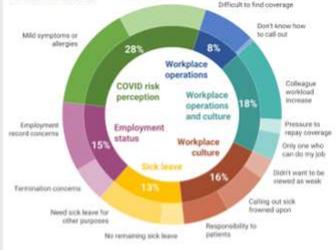
We measured frequency of and motivators for reported presenteeism with any symptoms of infectious illness as well as upper respiratory infection (URI) symptoms specifically. Using chi square statistics and logistic regression modeling, we compared these reports between demographic groups.

Study population

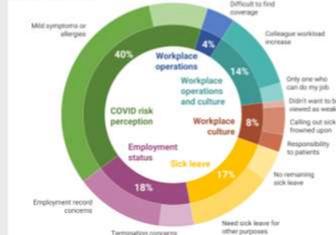
Respondents to the survey were mostly:

- Female (85%)
- White (64%), Black (11%), or >1 race (16%)
- Worked as direct patient care providers (60%)
- Bachelor's (43%) or Master's degree (25%) holders
- Reported age categories 30 - 59 (77%)

Concurrent Motivators



Primary Motivators



Results

60% of HCP reported working with any symptoms of infectious illness at least once since March 2020.

Of them, 84% reported more than one motivation.

Perceived low risk of COVID-19 (primarily mild symptoms) was the primary motivator for 40% of people working with any symptoms.

Authors:
Armando Brown, Marisol MPH,
David J. Weber MD MPH,
Cynthia Culbreth BSN RN,
Erica Pettigrew MD JD MPH,
Lisa Stancill MPH,
Emily Siskelen, Bennett PhD MS
Contact: oking@unc.edu



53

Employee Well-being



- Could be its own lecture
- Taking good care of employees benefits all: patients, employees, and the business (safer environment, lower turnover, less staffing shortages)
- Physical and mental well-being
 - Living wages and robust benefits
 - Parental leave
 - Comprehensive DEI (diversity, equity, and inclusion) trainings and meaningful reflections in workplace policies/practices, not just lip service
 - Safety from workplace violence
 - Fair PTO policies that disincentivize presenteeism
 - Access to resources for burnout, moral injury

54

Employee Well-being – do they know what to do?



- In the Occupational Health arena- fear comes into play...
- How are you educating and addressing next steps for employee health?

55



Thank You!

elaine.marshall@unchealth.unc.edu

56

