Occupational Health Update: Acute Care Facilities 4/7/25

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Disclosures

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- 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

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Objectives

- Vaccine Overview in US
- ACIP Updates
- Vaccines for HCPs (Pre-exposure prophylaxis)
- Post-exposure prophylaxis (Bloodborne Pathogens)
- Tuberculosis
- Employee Well-Being
- Civic Health

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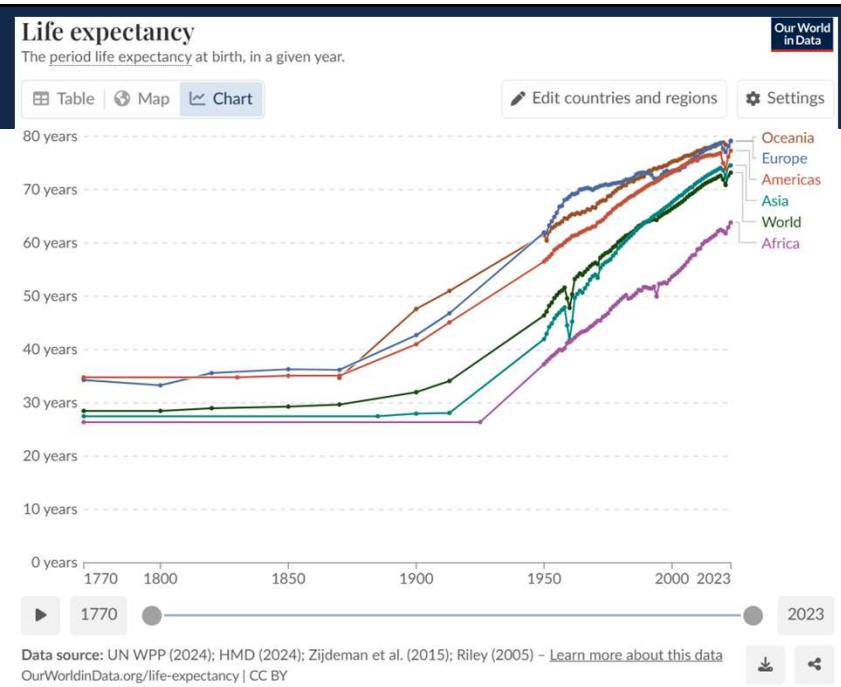

Why?

Life Expectancy - Our World in Data

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How Do We Know Vaccines Really Work?

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DISEASE	PRE-VACCINE ERA ESTIMATED ANNUAL MORBIDITY[1]	MOST RECENT REPORTS OR ESTIMATES OF U.S. CASES	PERCENT DECREASE
Diphtheria	21,053	2[2]	>99%
H. influenzae serotype B (invasive, <5 years of age)	20,000	18[2]	>99%
Hepatitis A	117,333	(est) 37,700[3]	68%
Hepatitis B (acute)	66,232	(est) 20,700[3]	69%
Measles	530,217	1,275[2]	>99%
Meningococcal disease (all serotypes)	2,886[4]	371[2]	87%
Mumps	162,344	3,780[2]	98%
Pertussis	200,752	18,617[2]	91%
Pneumococcal disease (invasive, <5 years of age)	16,069	1,700[5]	89%
Polio (paralytic)	16,316	0[2]	100%
Rotavirus (hospitalizations, <3 years of age)	62,500[6]	30,625[7]	51%
Rubella	47,745	6[2]	>99%
Congenital Rubella Syndrome	152	1[2]	>99%
Smallpox	29,005	0[2]	100%
Tetanus	580	26[2]	96%
Varicella	4,085,120	8,297[8]	>99%

https://www.immunize.org/wp-content/uploads/catg.d/p4037.pdf

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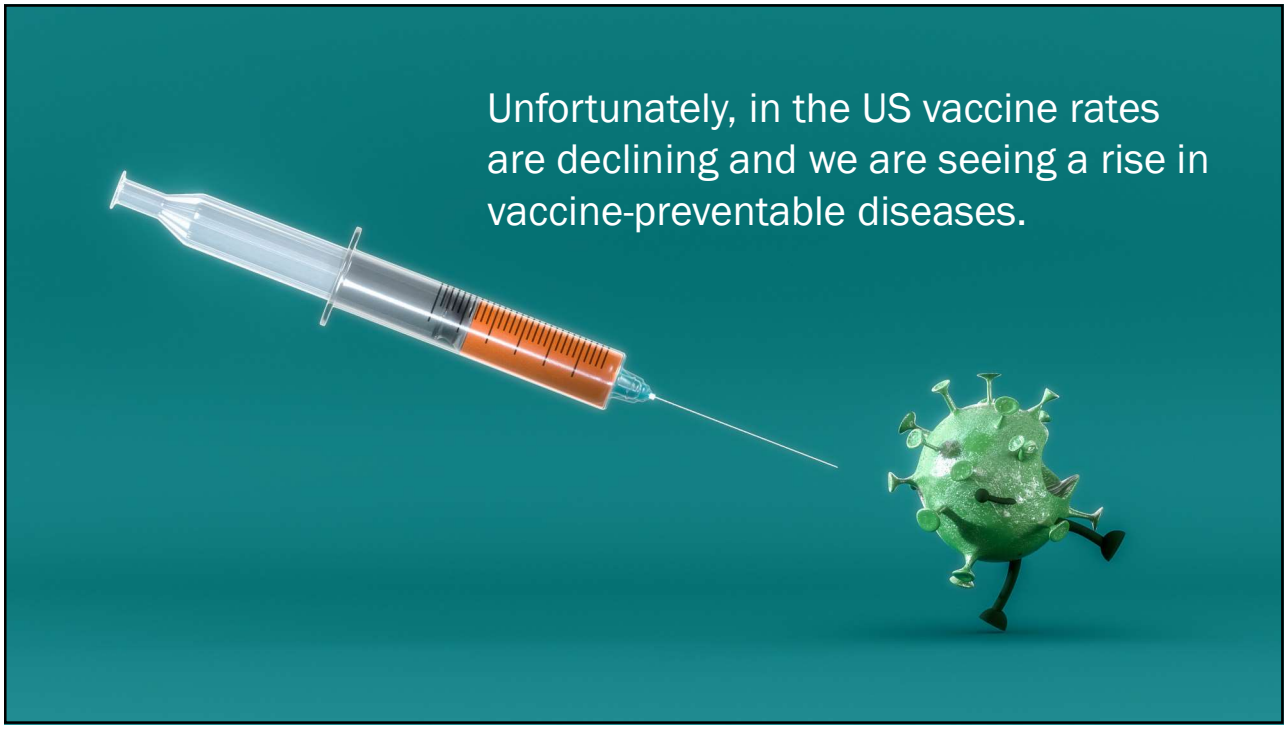

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ACIP Updates

Advisory Committee on Immunization Practices

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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 nadir in 2014, and acknowledges that risk-based intervention misses people reluctant to disclose.
- Also note that ACIP recommendations for Hepatitis B screening was updated in March 2023 to include testing at least once per lifetime in addition to risk factor based testing

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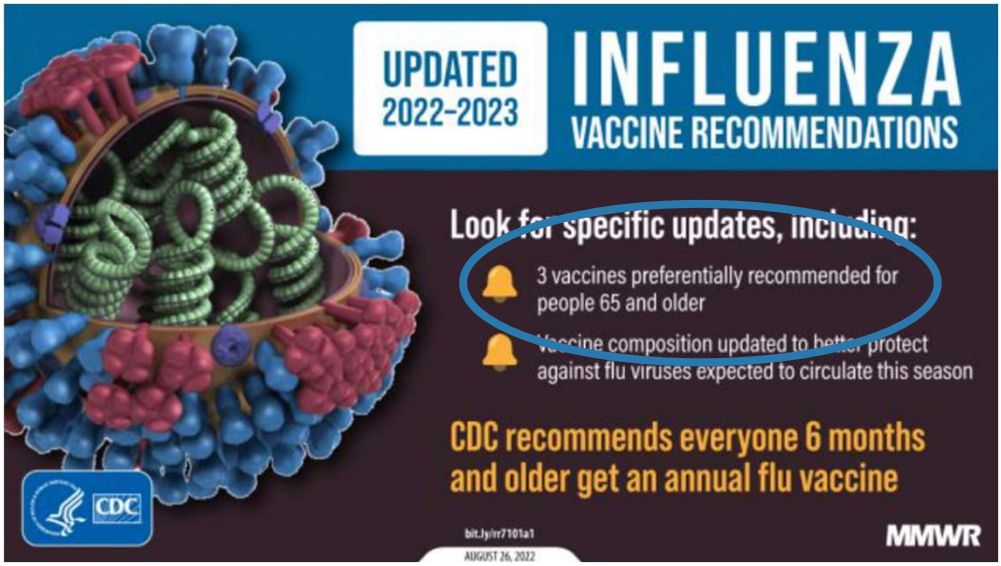
ACIP August 2022 Update



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ACIP Feb 2023 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

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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

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ACIP December 2023 Update

- 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

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

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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

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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

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Vaccines Indicated for Healthcare Personnel

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HCP Vaccination Recommendations

Vaccination	Recommendation
COVID-19	Everyone 6 months+ should get at least one dose of newest formulation
Hepatitis B	If no prior dose, either 2 doses of Heplisav-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 exposed to isolates of *N. Meningitidis*

https://www.cdc.gov/vaccines/adults/rec-vac/hcw.html

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COVID Vaccines

- So wait – I thought it wasn't 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.

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Hepatitis B

- **Indications**
  - Universal; HCP with potential blood exposure (OSHA required 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

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Hepatitis B

- HEPLISAV-B approved in late 2017
- 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)
	N	SPR (95% CI)	N	SPR (95% CI)	Difference (95% CI)
18-29	174	100.0% (97.9, 100.0)	99	93.9% (87.3, 97.7)	6.1% (2.8, 12.6)*
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

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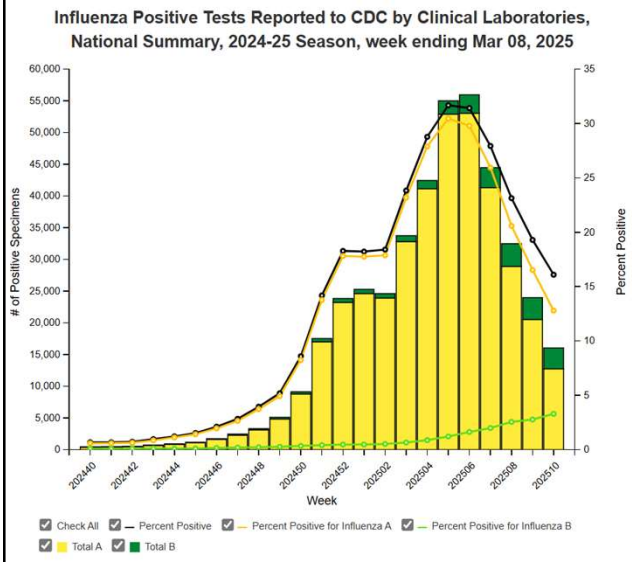
Influenza Season 24-25



	Week 10	Data Cumulative since September 29, 2024 (Week 40)
No. of specimens tested	3,264	107,113
No. of positive specimens	2,363	72,437
Positive specimens by type/subtype		

Weekly US Influenza Surveillance Report: Key Updates for Week 10, ending March 8, 2025 | FluView | CDC

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Every year individuals around the world work to study, track, and prevent flu. This page profiles these Flu Fighters and the work they are doing to contribute to flu prevention in the U.S. and around the world!

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A FLU VACCINE CAN TAKE FLU FROM
WILD
TO
mild
#FIGHT FLU
CDC

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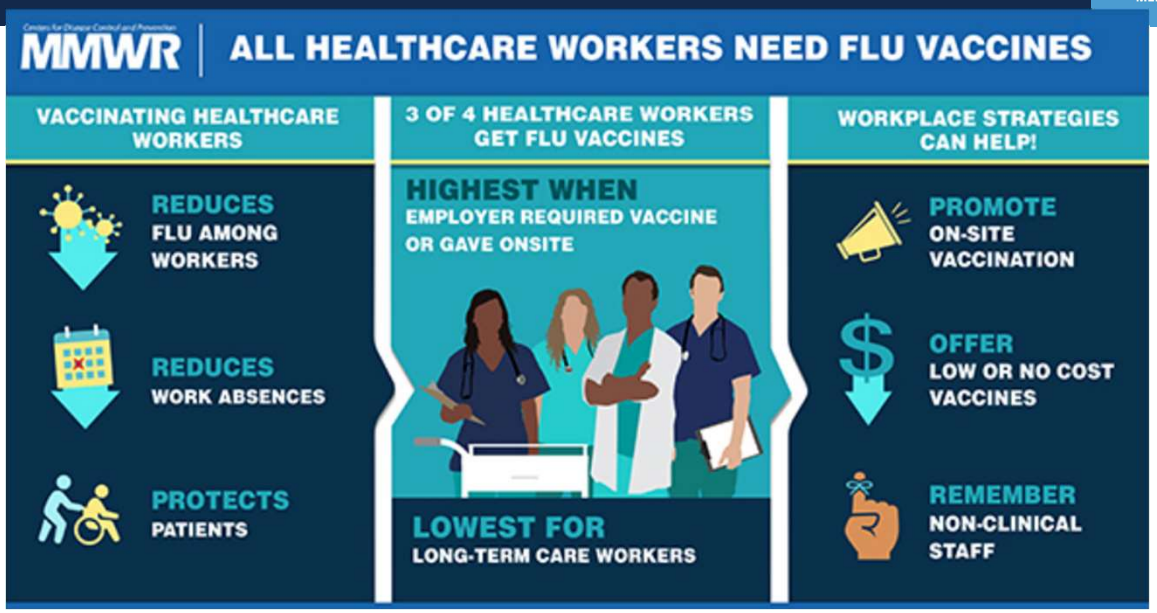
MMWR
ALL HEALTHCARE WORKERS NEED FLU VACCINES
VACCINATING HEALTHCARE WORKERS
REDUCES FLU AMONG WORKERS
REDUCES WORK ABSENCES
PROTECTS PATIENTS
3 OF 4 HEALTHCARE WORKERS GET FLU VACCINES
HIGHEST WHEN EMPLOYER REQUIRED VACCINE OR GAVE ONSITE
LOWEST FOR LONG-TERM CARE WORKERS
WORKPLACE STRATEGIES CAN HELP!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

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Influenza vaccines

- ACIP recommendations
  - One annual dose for all persons ≥ 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)
  - No legal mandates for other healthcare workers
  - Immunize as soon as vaccine becomes available for the current season

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

Long-term-care-toolkit.pdf (cdc.gov)

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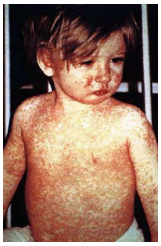
Measles, Mumps, Rubella (MMR)

- **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 to susceptible women of childbearing potential
  - Immunity = Appropriate immunizations or positive serology



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Measles is coming back

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U.S. Cases in 2025

Total cases

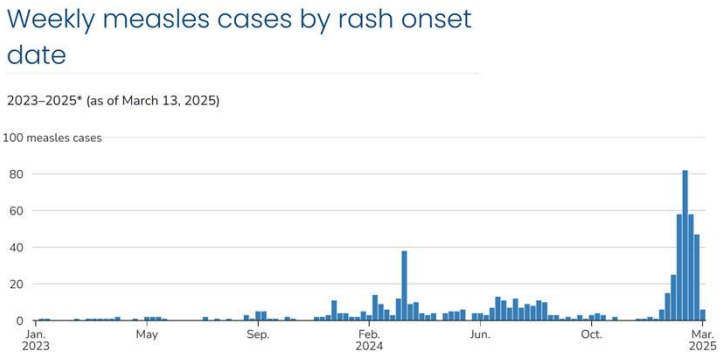
301

Age
Under 5 years: **103 (34%)**
5-19 years: **126 (42%)**
20+ years: **63 (21%)**
Age unknown: **9 (3%)**

Vaccination Status
Unvaccinated or Unknown: **95%**
One MMR dose: **3%**
Two MMR doses: **2%**

More cases in 2025 so far than all of 2024

Super contagious: 9 out of 10 susceptible people who are exposed will contract measles



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)

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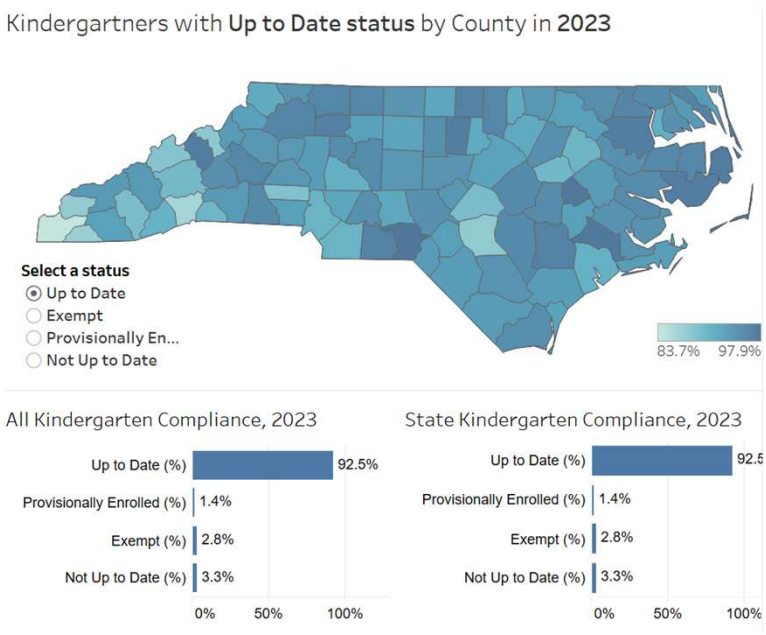

Herd Immunity Goal?

https://immunization.dph.ncdhhs.gov/schools/kindergartendashboard.htm
accessed 2/28/25

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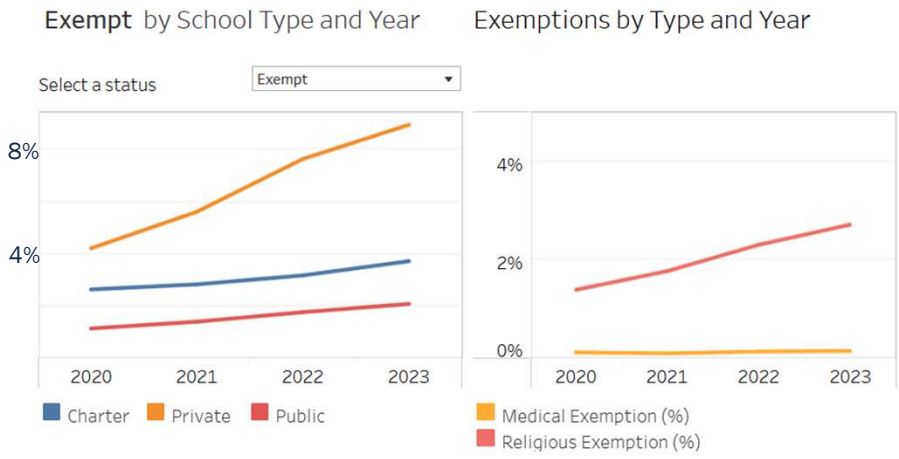
NC Kindergarten Vaccine Exemption



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Measles Prep Plan – Sense of Urgency

- Educational campaigns aimed at HCPs on early recognition - every minute that goes by with an undiagnosed measles patient in your facility is exposing more and more people
- Fast-paced contact investigations. Coordination between OHS, IP, Plant Engineering and health dept along with immediate availability of immunoglobulin and MMR (window for post-exposure ppx in most cases is 72 hours)
- Practice drills at all entry points (outpatient, ED, urgent care) after protocols are developed (isolate suspected pt in neg pressure room, call IP/Epi-On-Call, etc)
- Occupational Health:
  - Maintain up-to-date records of all employes
  - Review records now and offer MMR doses to those out of compliance
  - If your facility might care for a measles patient:
    - Maintain list of those with approved exemptions (key since CDC recommends only immune HCPs provide measles care)
    - Discuss how to address immunocompromised HCPs who want to opt out

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Varicella

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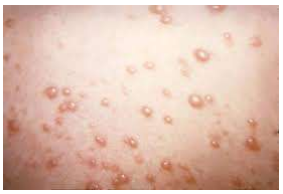
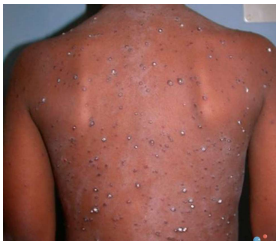
- **Special consideration should be given to those who have close contact with**
  - Persons at high risk for severe disease (e.g., immunocompromised persons)
  - Persons are at high risk for exposure or transmission (e.g., teachers of young children, college students, military recruits, international 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

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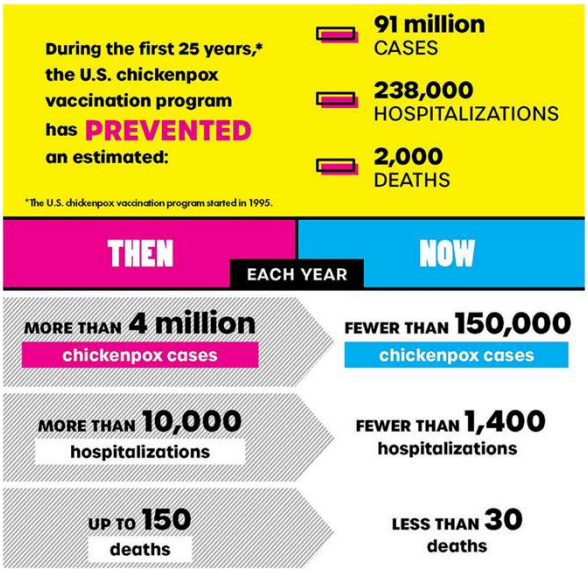
Varicella



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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 Tdap preferred)

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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

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Tuberculosis

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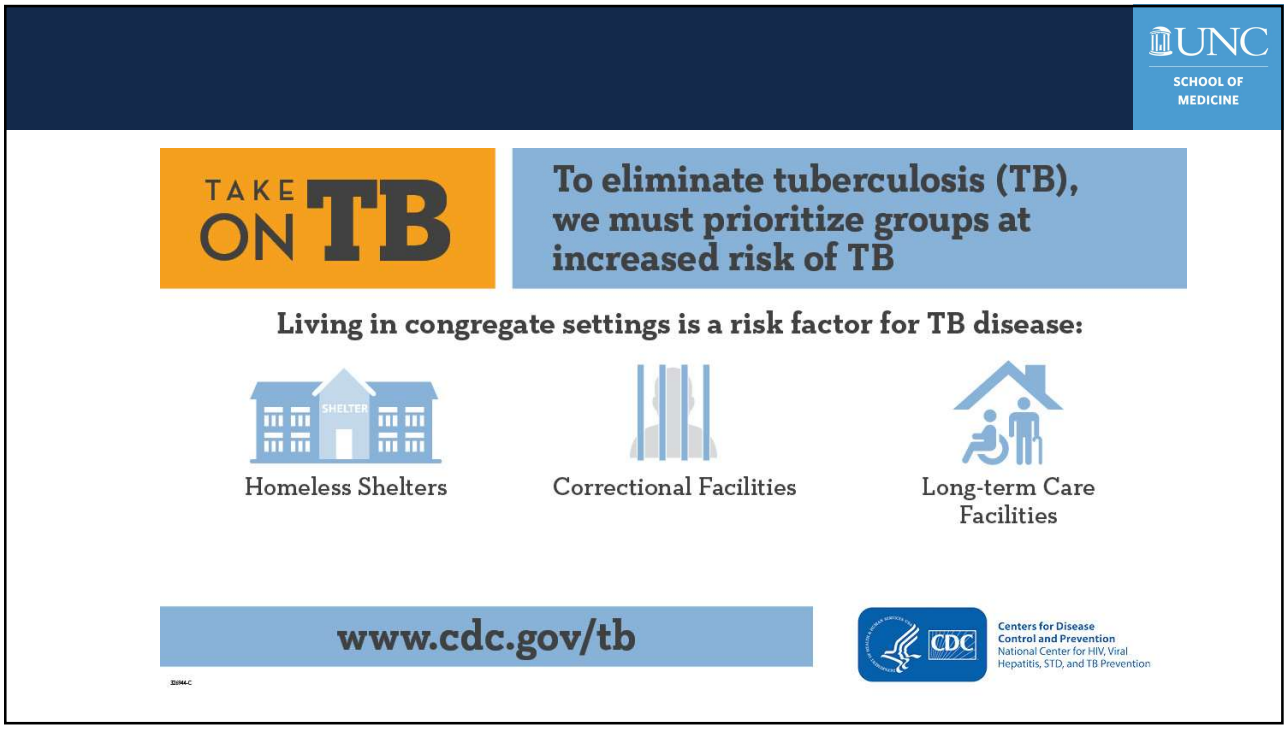

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Testing/ Treatment

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- **Baseline (preplacement) screening and testing.** All U.S. health care 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. health care 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.
- **Health care 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.

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NC TB Policy Manual

- **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.
    - 10A NCAC 41A .0205; 10A NCAC 13D .2202 & .2209; OSHA

https://epi.dph.ncdhhs.gov/cd/lhds/manuals/tb/COVIDvaxMemo01282021.pdf

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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.

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Bloodborne Pathogens

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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

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Steps for Prevention

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

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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

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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)

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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)

RISK

- 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

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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 – 4th generation	Lab - only if baseline abnormal or clinical indication		HIV test - 4th generation	HIV test - 4th generation	
HBsAg positive	• 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					• 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	• 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		• HIV test – 4th generation • HCV RNA PCR	• HIV test – 4th generation • Anti-HCV (Hepatitis C antibody)	• Anti-HBc • HBsAg

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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

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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

Kuhar, D. T., Henderson, D. K., Struble, K. A., Heneine, W., Thomas, V., Cheever, L. W., Gomaa, 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

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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)

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Hepatitis B

	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

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

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†
Documented responder§ after complete series (3 or more doses)	No action needed	No action needed	No action needed	No action needed	No action needed
Documented nonresponder¶ 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.

†Should 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).

§A 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.

¶A 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.

https://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html#Epidemiology

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Hepatitis C

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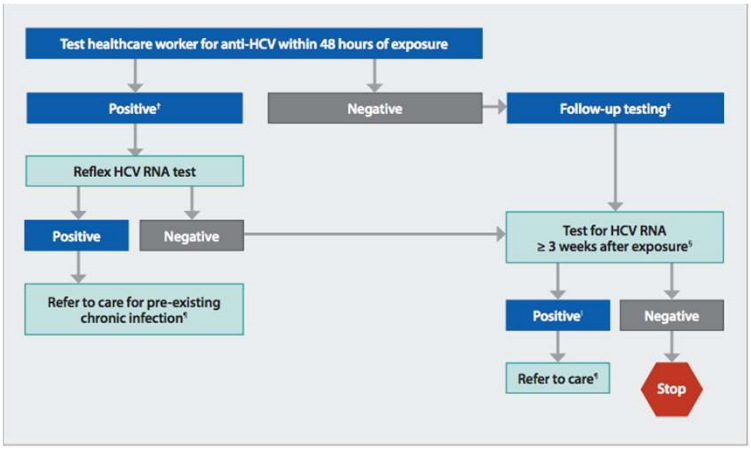
- No post-exposure prophylaxis
- Source patients should be tested by Hep C PCR



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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

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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

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Presenteeism: Threat to Healthcare

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- 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

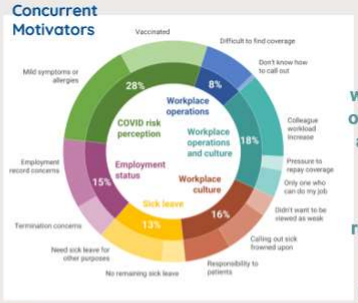
We surveyed 586 healthcare personnel (HCP) at a large, academic medical center in North Carolina about their experiences, perceptions and behaviors related to sickness presenteeism during the COVID-19 pandemic.

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.

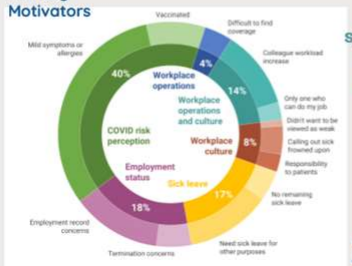
Study population

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.

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UNC HOSPITALS

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Civic Health - Voting

NORTH CAROLINA STATE BOARD OF ELECTIONS

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Multipartisan Assistance Team (MAT)

A multipartisan assistance team, or "MAT," is a group appointed by a county board of elections to assist with mail-in absentee voting and other services to voters living at facilities such as hospitals, clinics, and nursing homes.

A MAT includes, at a minimum, two people who have different party affiliations (or, in the alternative, persons who were unanimously appointed by a bipartisan county board of elections). If you request help from a MAT, you should receive impartial, professional assistance. Their job is to help you vote, but your voting choices will remain confidential.

MATs are authorized to help voters in the following ways, with specific legal requirements:

- Providing voter registration services.
- Requesting an absentee ballot.
- Serving as an absentee witness.
- Marking the absentee ballot.
- Sealing the ballot and completing the absentee application.
- Mailing the voted absentee ballot in the closest U.S. mail depository or mailbox, if the voter has a disability.

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Thank You!

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