

Occupational Health Update: Long Term Care Facilities 4-15-25

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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



Objectives



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

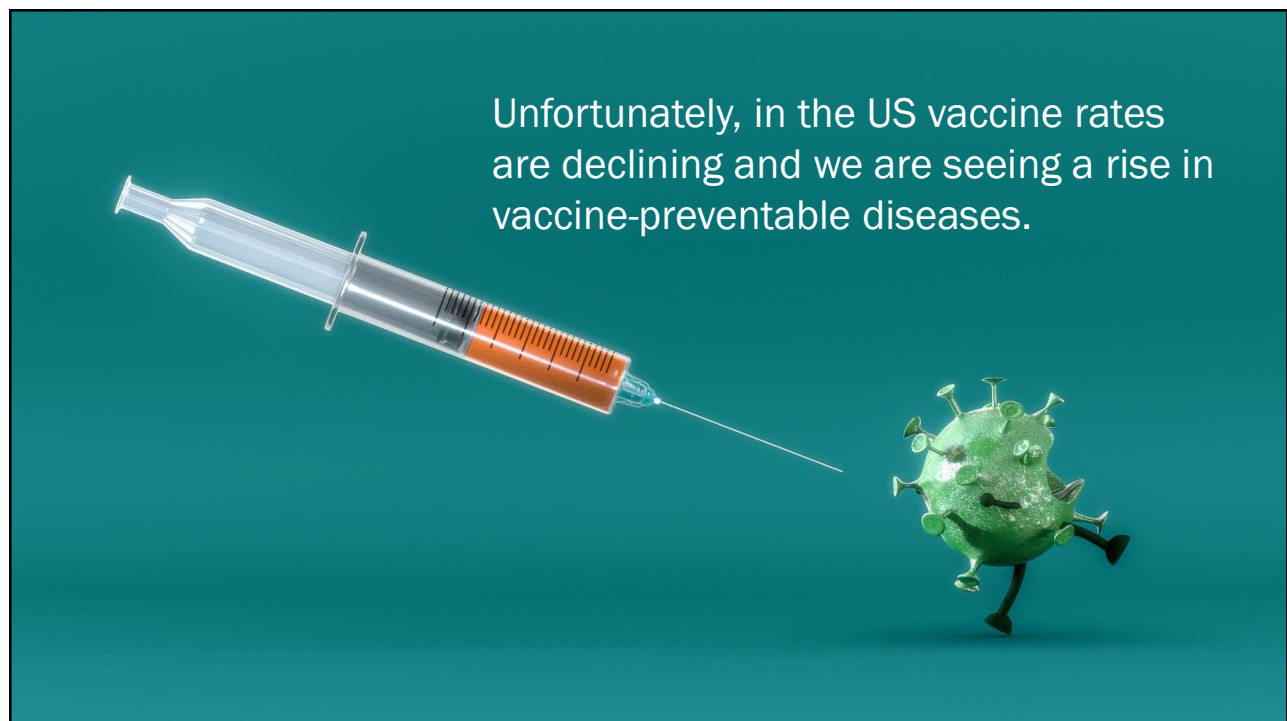


How Do We Know Vaccines Really Work?



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%
<i>H. influenzae</i> 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>





ACIP Updates

Advisory Committee on Immunization Practices

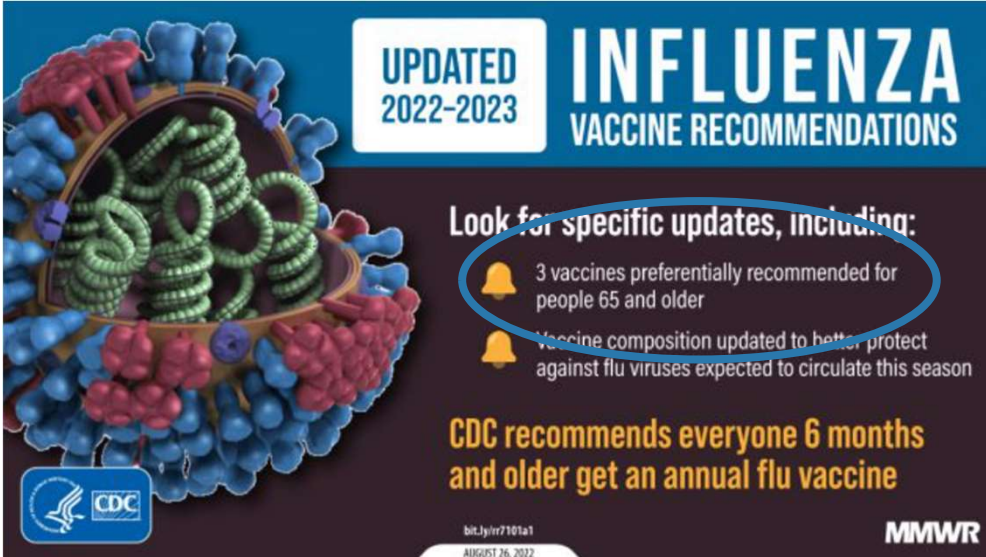


ACIP April 2022 Update



- 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

ACIP August 2022 Update



UPDATED 2022-2023

INFLUENZA

VACCINE RECOMMENDATIONS

Look for specific updates, including:

- 3 vaccines preferentially recommended for people 65 and older
- Vaccine composition updated to better protect against flu viruses expected to circulate this season

CDC recommends everyone 6 months and older get an annual flu vaccine

bit.ly/inr7101a1
AUGUST 26, 2022

MMWR

CDC

The graphic features a large, detailed illustration of an influenza virus particle on the left, showing its characteristic spherical shape with a surface covered in red and blue spikes (hemagglutinin and neuraminidase) and a green helical structure (RNA) inside. The background is a dark blue gradient. The text is in white and yellow for emphasis.

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>

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

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>

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

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>



Vaccines Indicated for Healthcare Personnel



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 <i>N. Meningitidis</i>

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



 **PROJECT
FIRST LINE**

Healthcare Workers

**Get your updated
vaccines this
respiratory
virus season**



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.

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

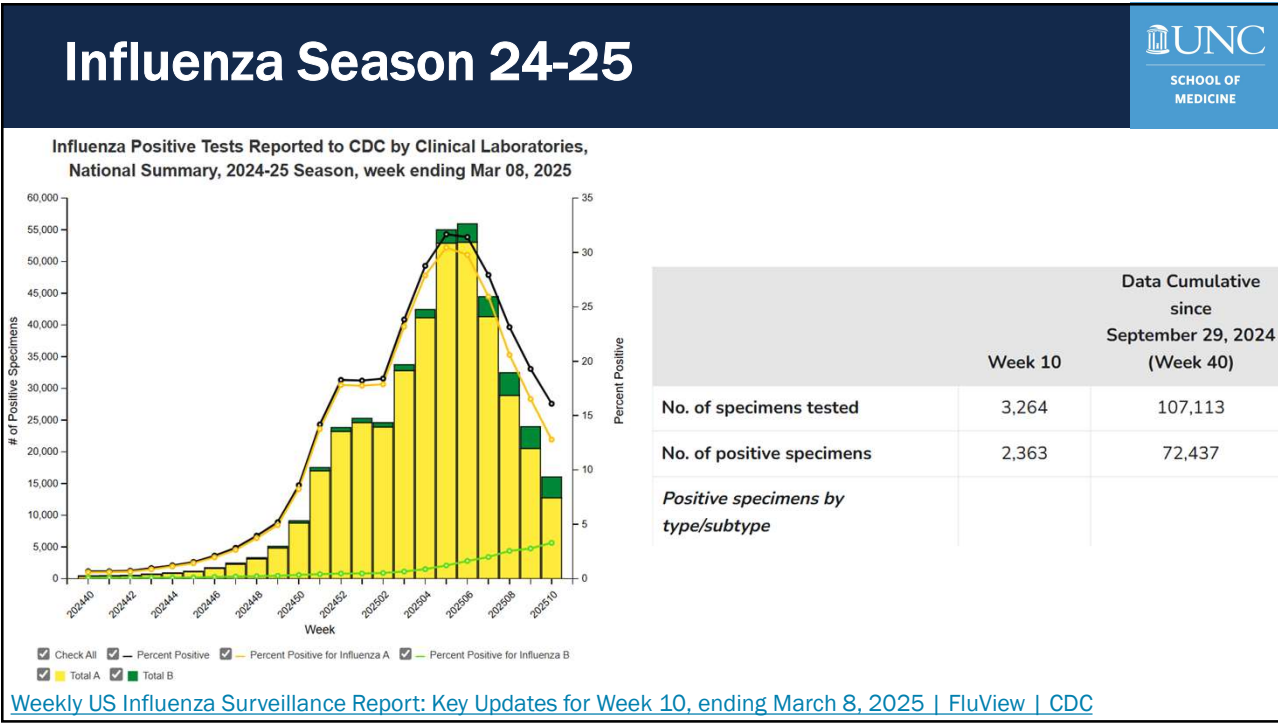
Hepatitis B





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

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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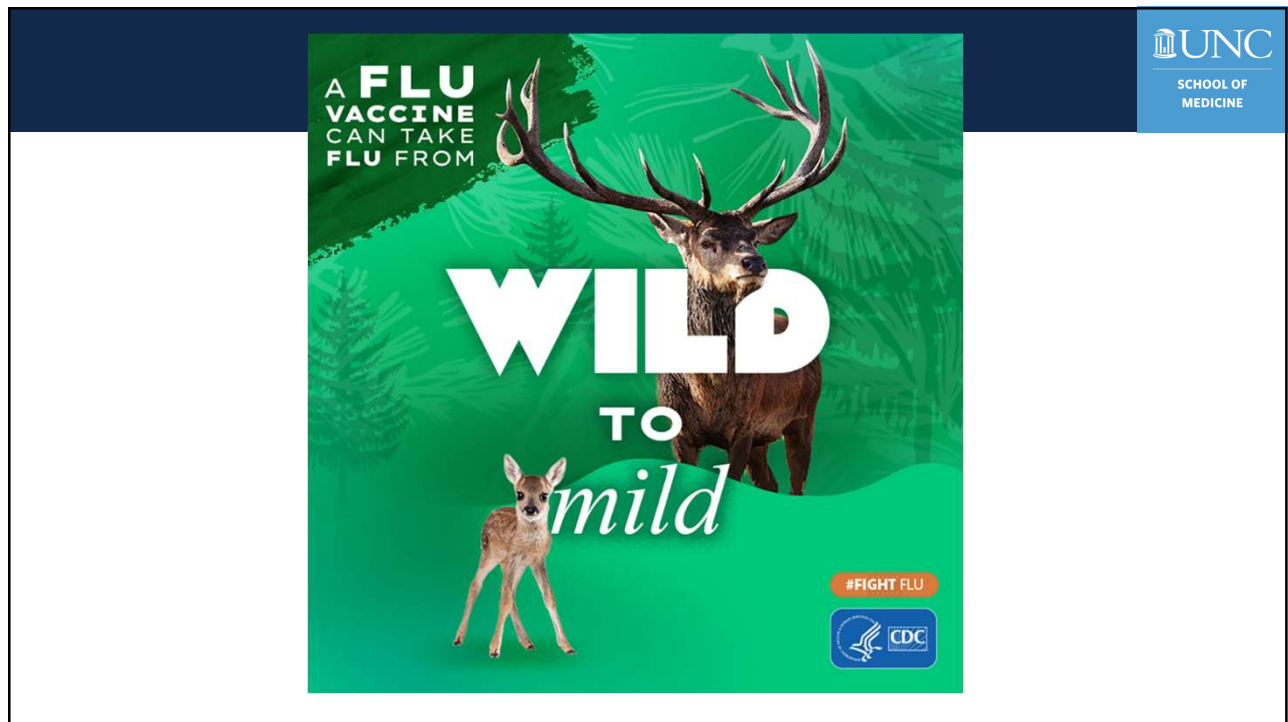



Meet our Flu Fighters

#FIGHT FLU



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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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	HIGHEST WHEN EMPLOYER REQUIRED VACCINE OR GAVE ONSITE 	 PROMOTE ON-SITE VACCINATION
 REDUCES WORK ABSENCES	LOWEST FOR LONG-TERM CARE WORKERS	 OFFER LOW OR NO COST VACCINES
 PROTECTS PATIENTS		 REMEMBER NON-CLINICAL STAFF

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)
 - 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>

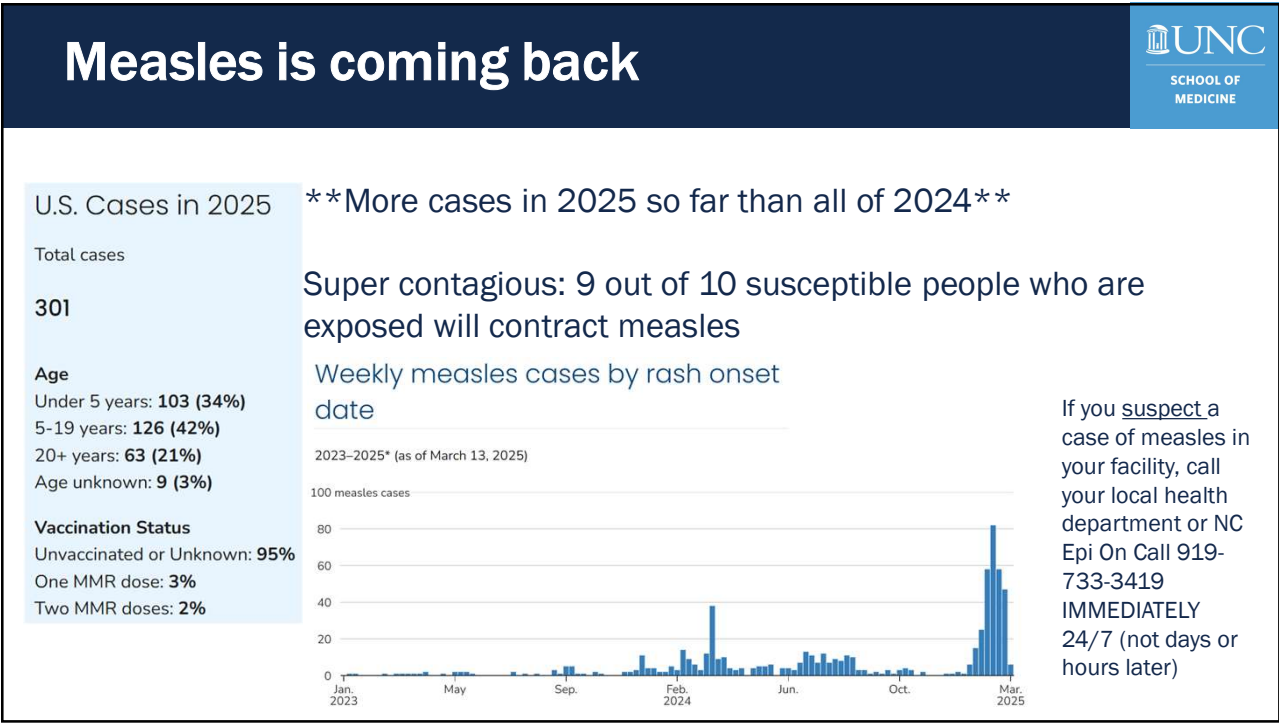
[Long-term-care-toolkit.pdf \(cdc.gov\)](#)

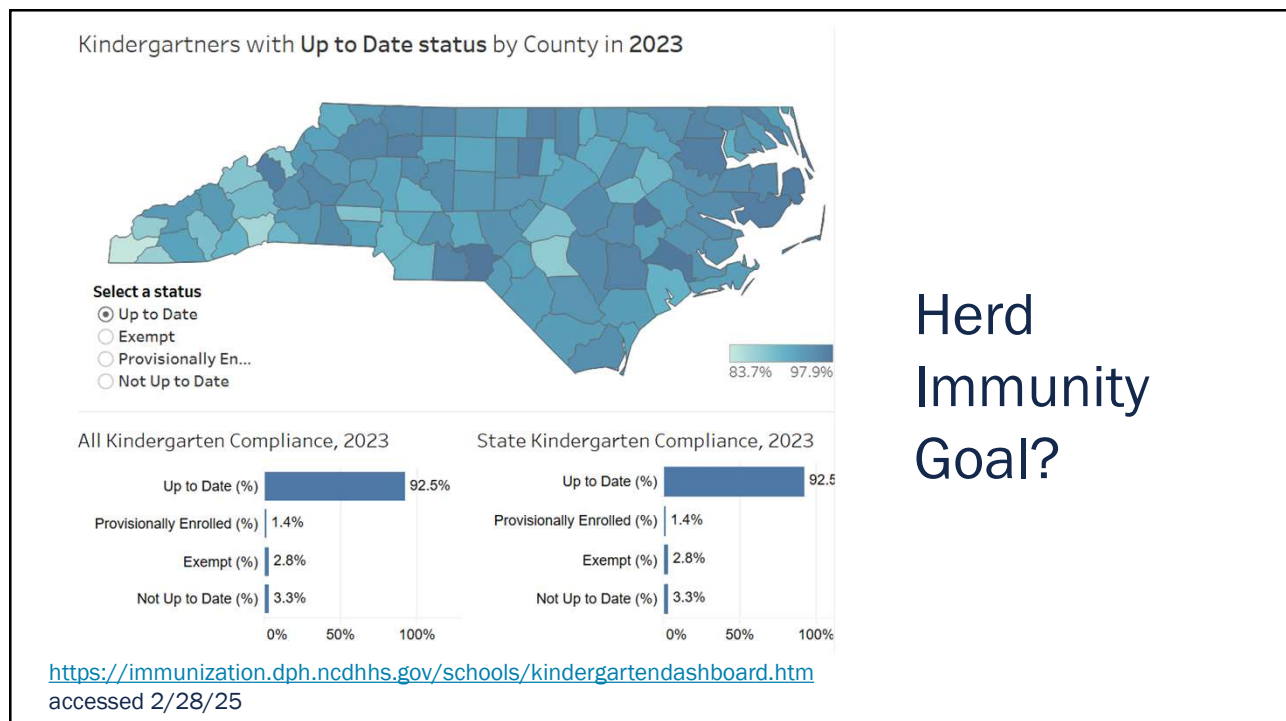
Measles, Mumps, Rubella (MMR)



- **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

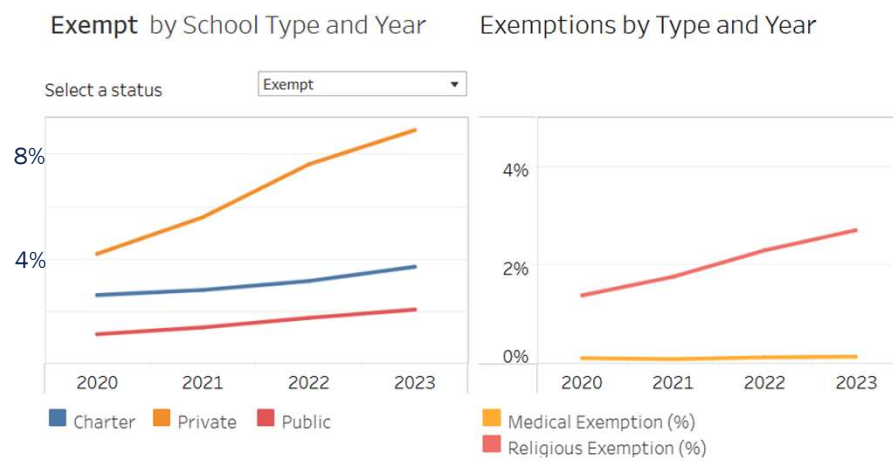






Herd
Immunity
Goal?

NC Kindergarten Vaccine Exemption





30

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 employees
 - 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

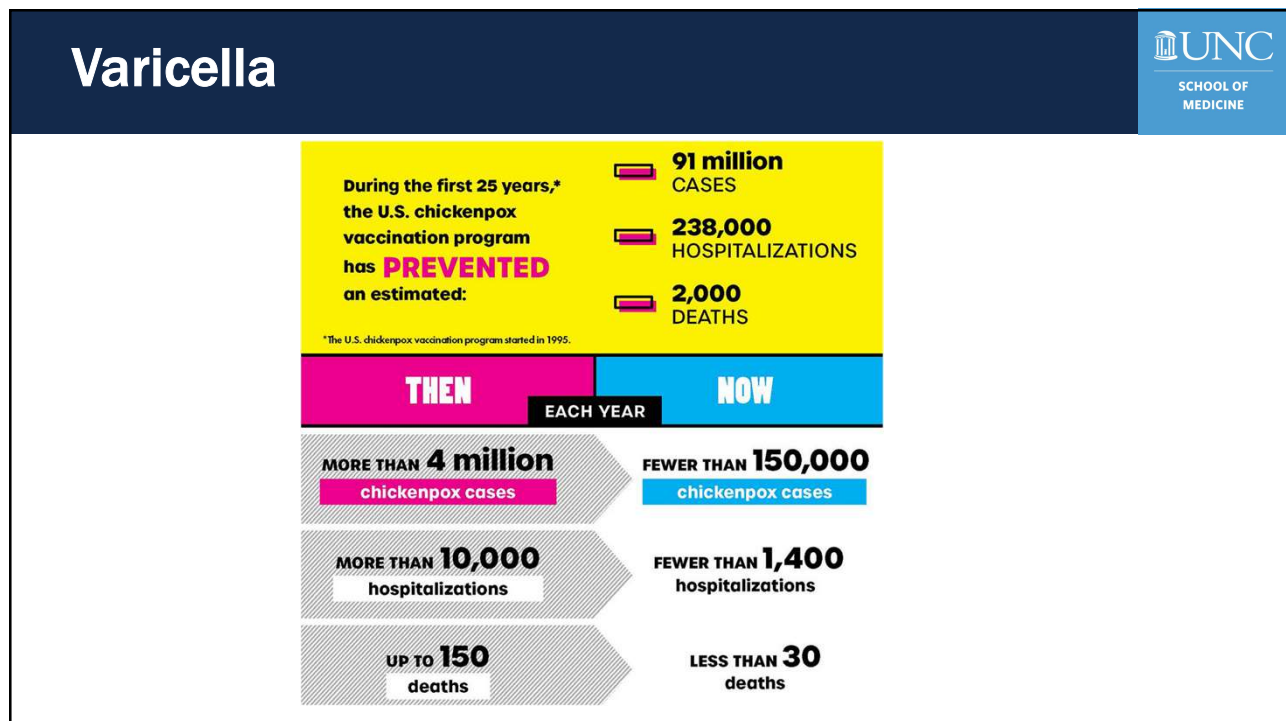
Varicella (Chickenpox)



- **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>



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).

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



Tuberculosis






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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

Testing/ Treatment



- **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>.

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.ncdhs.gov/cd/lhds/manuals/tb/COVIDvaxMemo01282021.pdf>

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.



Bloodborne Pathogens



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>

Steps for Prevention



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



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>

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)

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)

R
I
S
K

- 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

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

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>

Current HIV PEP



- Three-drug regimen
 - Tenofovir-emtricitabine (Truvada) + raltegravir (Isentress) for 4 weeks (28 days)
 - Other regimens 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., Gornaa, 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>

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)

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 ¹
Documented responder ² 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).

²A 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.

³A nonresponder is defined as a person with anti-HBs less than 10 mIU/mL after 2 complete series of HepB vaccine.

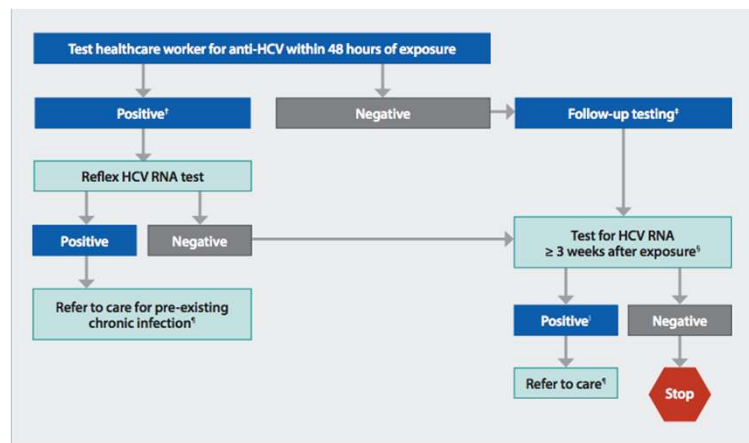
**HCP who have anti-HBs less than 10 mIU/mL, or who are unvaccinated or incompletely vaccinated, and sustain an exposure to a source patient who is HBsAg-positive or has unknown HBsAg status, should undergo baseline testing for HBV infection as soon as possible after exposure and follow-up testing approximately 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>

Hepatitis C



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



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

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

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.

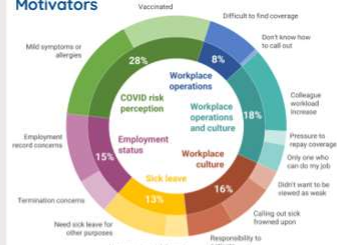
We measured frequency of and motivators for reported presenteeism with any symptoms of infectious illness as well as upper respiratory infection (URI) symptoms specifically. Using chi square statistics and logistic regression modeling, we compared these reports between demographic groups.

Study population

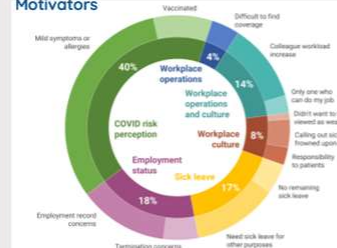
Respondents to the survey were mostly:

- 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.

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Civic Health - Voting



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.



Thank You!

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