





## KDHE-KHC Infection Prevention LAN for Outpatient Settings

### KDHE-KHC Learning Action Network

February 25	IP Program Development, Leadership, Policies and Procedures
March 11	Surveillance and Reporting
<b>March 25</b>	<b>Occupational Health</b>
April 8	Personal Protective Equipment
April 22	Hand Hygiene
May 6	Environmental Cleaning & Disinfection
May 20	Device Reprocessing
June 3	Antimicrobial Stewardship
June 17	Learning/Sharing Forum

Recordings and handouts are available online. Visit [www.khconline.org/LAN](http://www.khconline.org/LAN)



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## LAN Faculty and Planning Committee

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## Session #2 Feedback Summary

### Surveillance and Reporting

#### The most useful thing presented included:

- Detailed instructions about what types of diseases to report and when
- Outbreak scenarios, difference between outbreak and cluster
- Reporting requirements and access to website, forms and phone info.
- Auditing tools/links

#### Next steps identified by participants:

- Look into our surveillance and reporting process
- Educate staff on recognizing reportable diseases
- Educate nursing staff in clinic and other colleagues about disease reporting requirements
- Will review the CDC guide
- Post the reportable diseases list
- Develop new policy auditing processes
- Use the surveillance tools
- Review the links provided
- Review reporting requirements for COVID
- Work with my outpatient settings to establish an IP program

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## Session 3: Occupational Health



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## Presenters



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## Session 3: Occupational Health

### Session Objectives

- Name at least two basics of an Occupational Health program in an ambulatory healthcare setting
- Recognize mandatory onboarding and regulatory requirements of new staff
- Demonstrate how to develop Occupational Health Plans related to: Bloodborne Pathogens, Tuberculosis, and Respiratory Protection
- Practice data collection, reporting, utilize forms, and demonstrate documentation as it relates to Occupational Health
- COVID-19 risks to healthcare workers
- COVID-19 vaccine

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## Session 3: Occupational Health

### Polling Question

If a worker sustains a bloodborne pathogen exposure, what is the very first thing that should occur:

- ☐ A. Get the manager
- ☐ B. Begin to submit an event report
- ☐ C. Perform first aid to the site
- ☐ D. Tell patient they must get their blood drawn






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## Session 3: Occupational Health

### Elements of an Occupational Health Program

- **Safety** 
  - **Compliance** 
  - **Education/Training** 
  - **Support** 
  - **Data** 
- Bloodborne Pathogen Exposure Plan
  - TB Organization Risk Assessment
  - Respiratory Protection Plan
  - State statutes
  - Regulatory bodies
  - Accreditation bodies
  - Orientation
  - Policies and Procedures
  - Ongoing yearly training and processes
  - Whole organization involved
  - All staff come through the program
  - Professional organizations
  - QI committee
  - Operations committee
  - HR reports

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## Session 3: Occupational Health

*"Often patient safety far overshadows worker safety in healthcare settings and frankly, without healthcare personnel, there is no healthcare. In fact, safer healthcare workers have a direct impact on their ability to provide and maintain safer patient care."*

Amber Hogan Mitchell, DrPH, MPH, CPH, President and Exec. Director of the International Safety Center

# WORK SAFETY



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## Session 3: Occupational Health

### Occupational Health: Onboarding New Staff / Training / Policies

☐ Orientation

☐ Education

☐ Safety

☐ Requirements for Healthcare organizations

☐ Documentation

☐ Files

☐ Communication

- Hand hygiene
- Standard precautions
- Personal Protective Equipment
- Needlestick Prevention
- Transmission based precautions
- Bloodborne Pathogens
- Waste Management
- Hepatitis B
- Tuberculosis
- Flu vaccine

TJC IC.02.03.01, IC.02.04.01 EP.2 NPSG.07.03.01 EP.2, NPSG.07.05.01 EP.1 HR.01.04.01, HR.01.04.01, OSHA 29 CFR 1910.1030(g) (2) OSHA 8 CCR 5193, CMS 482.42(a)(1)

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## Session 3: Occupational Health

### Occupational Health files/records/documentation

- Occupational health files should not be kept in Human Resources.
- Have an audit sheet in the front of each worker's file so that you can show the dates, times, notes, etc. of when you received or requested items.
- Most small clinics are paper based, so you will get very handy with Excel.
- Persuade leadership to purchase occupational health software.

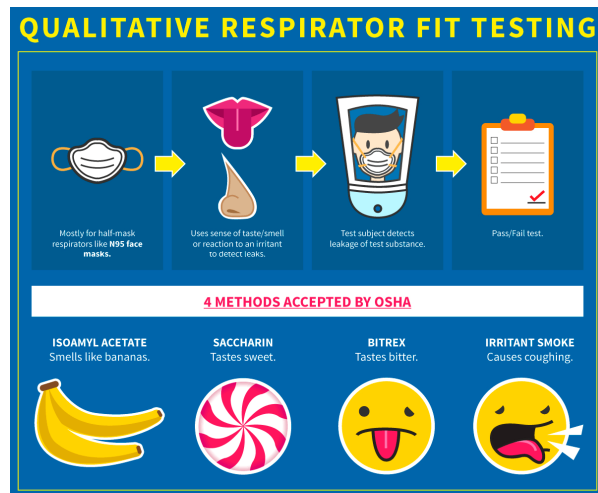


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## Session 3: Occupational Health

### Respiratory Protection: Respirator Fit Testing / Tuberculosis / Other Airborne Pathogens



1. Risk each worker to find out who requires a respirator fit test
2. Make sure the fit tester is competent to perform the test
3. Get supplies ordered and practice
4. Mandatory documents: OSHA Respirator Medical Evaluation Questionnaire and fit test record



For those to be mask fitted and for annual training:  
<https://youtu.be/D38BjgUdL5U>

For training for qualitative fit testing:  
<https://youtu.be/VIWkHb5O-DU>

1910, Occupational Safety and Health Standards, PPE, 1910.134, app A. Fit Testing Procedures (Mandatory)

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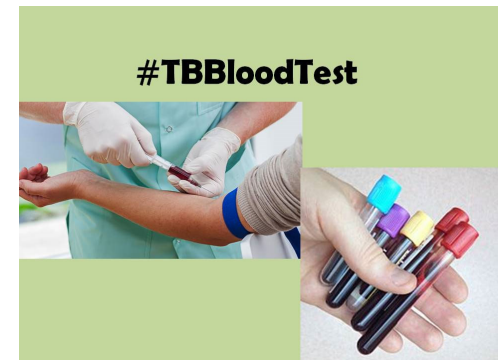
## Session 3: Occupational Health

### Tuberculosis Screening for all individuals in healthcare

**State of Missouri:** Statute 199.290.1, which states to follow the MMWR Guidelines for Preventing the Transmission of Mycobacterium Tuberculosis in Health Care Settings

**State of Kansas:** reach out to the department responsible for licensing your facility. The requirements differ depending on the type of facility. Most likely it is the same as Missouri.

1. CDC TB Risk Assessment for the organization
2. Education of all staff who work in the healthcare facility on TB
3. TJC Infection Control Standard IC.02.03.01 requires that all employees screened for exposure/or immunity to infectious disease



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## Session 3: Occupational Health

### Bloodborne Pathogen (BBP) and Other Clinical Exposures

This requirement is based on Federal Standard issued in December 1991 under the Occupational Safety and Health Act.

- It mandates that hepatitis B vaccine be made available at the employer's expense to all health-care personnel who are exposed occupationally to blood or other potentially infectious material.
- Must have documentation that it was educated on, offered, and whether the worker consents or declines.  
~Standard number 1910.1030(f)(2), 1910.1030 App A.

Bloodborne Pathogen exposure to a worker?



Labs that are drawn on source patient:

- HIV 4<sup>th</sup> generation Ag/Ab Combo
- HBsAG Hepatitis B Surface Antigen
- Hepatitis C Antibody
- Hepatitis C RNA, Quantitative PCR



CDC: Morbidity and Mortality Weekly Report (MMWR) 2011-Immunization of Health-Care Personnel: Recommendations of the Advisory Committee on Immunization Practices (ACIP)  
National Vaccine Information Center. *What is the History of Hepatitis B Vaccine Use in America*. 2019.  
CDC: Morbidity and Mortality Weekly Report (MMWR) 2013 – CDC Guidance for Evaluating Health-Care Personnel for Hepatitis B Virus Protection and for Administering Postexposure Management

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## Session 3: Occupational Health

### Risks of BBP Exposures

10-fold higher risk of HBV infection:

- Surgeons
- ED HCWs
- Lab personnel
- Physicians (5-10 x)
- Dentists (5-10 x)

HCW working with highest prevalent pop:

- Urban settings
- Immigrants from endemic countries
- IVDU
- Inmates
- MSM
- HD

Virus	Mucosal exposure	Percutaneous exposure
HBV	?	6-37%
HCV	3 case reports	1-3%
HIV	0.03% (1 case)	0.3%

Schillie S et al MMWR 2013;62(RR-10)  
Cardo D et al NEJM 1997;337(21):1485-90

Kuhar D et al ICHE 2013;34:875-92  
Patel P et al AIDS 2014;28:1509-19

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## Session 3: Occupational Health

### Primary Prevention

#### Elimination

- Remove sharp sutures for skin closure where appropriate, replace with zipper technologies, adhesives, strips or other non-sharps



#### Substitution

- Replace sharp sutures with blunt-tip sutures (internal fascial closures)
- Replace needles for IV connections with needleless connectors



#### Engineering controls

- Use sharps with injury protections (SIPs), needleless IV systems



National Sharps Injury Prevention Society (ISIPS), <http://isips.org/needlesticks/>,  
[http://isips.org/product\\_category/blunt-suture-needles/](http://isips.org/product_category/blunt-suture-needles/),

Pyrek K. Infection control in occupational health: CDC seeks to update guidelines  
Infection Control Today, June 6, 2019  
<https://www.infectioncontroltoday.com/view/infection-control-occupational-health-cdc-seeks-update-guidelines>

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## Session 3: Occupational Health

### Primary Prevention

#### Administrative & Work Practice

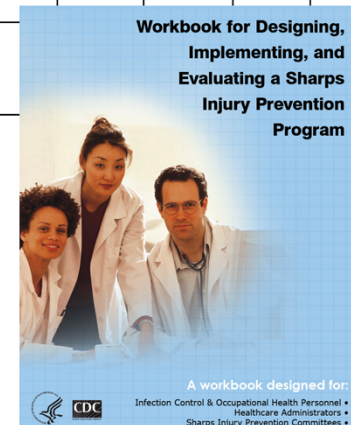
- On-hire & annual training
- Risk assessments (e.g., safety activation use, overfilling disposals, re-use)

#### Vaccinations

IPC PRACTICE FAILURES	PROBABILITY OF OCCURRENCE (How likely is this to occur?)				IMPACT ON RESIDENT/STAFF SAFETY (Will this failure directly impact safety?)			
	High	Med.	Low	None	High	Med.	Low	None
<b>Medical Devices and</b>								
Improper handling of medications and injection equipment (e.g., reuse of syringes)	X							
Lack of access to single-use, auto-disabling fingerstick devices			X					
Inappropriate sharing of devices labeled for single-patient use				X				

In the *past year*, what proportion of injuries that occurred due to the following circumstances?

Circumstance	# of Injuries	% of Injuries
Manipulating needle in patient		
Manipulating needle in IV line		
Suturing		
Recapping		
Discarding sharp into container		
Discarding sharp improperly		
During clean-up		
Other		



CDC Sharps Prevention Guide [https://www.cdc.gov/sharpsafety/pdf/sharpsworkbook\\_2008.pdf](https://www.cdc.gov/sharpsafety/pdf/sharpsworkbook_2008.pdf)

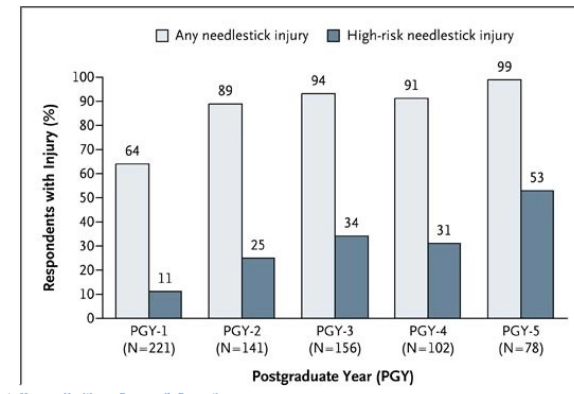
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## Session 3: Occupational Health

### Culture Change

- 99% surgical & 76% dermatology residents:
- *At least 1* sharps injury (53% high-risk pt)
- 34% did NOT report to occupational health
- 86% received formal sharps training but  
70% did not receive hands-on safety
- Less stigma of reporting incidents
- Teaching colleagues, speaking up
- Sharing experiences (& sharing/ID'ing risks)
- Competency **hands-on** training



SAMPLE Survey to Measure Healthcare Personnel's Perceptions of a Culture of Safety

**SUMMARY REPORT**

Date survey initiated: \_\_\_\_\_ Date of report: \_\_\_\_\_  
 Number of forms distributed: \_\_\_\_\_ Number returned: \_\_\_\_\_  
 Response rate: \_\_\_\_\_ %

**Method of Distribution**

\_\_\_\_ Inserted in pay envelopes  
 \_\_\_\_ Distributed via department heads  
 \_\_\_\_ Included in organization's newsletter  
 \_\_\_\_ Mailings

\_\_\_\_ Mailed to  
 \_\_\_\_ Left in key locations for staff to pick up  
 \_\_\_\_ Other

**Safety Culture Score**

Highest possible score = 50  
 Total mean score (sum of mean scores): \_\_\_\_\_

Individual Item Scores	Mean Score	%1	%2	%3	%4	%5
1. Commitment to safety						
2. Feedback on safety						
3. Promotion of hazard reporting						
4. Personal accountability						
5. Hazard correction						
6. Availability of sharps containers						
7. Employee/management collaboration on safety						

Makary M et al. NEJM; 2007;365:2693-99.

Nambudiri V et al. J Am Acad Derm 2016;74(4):756-8.

CDC Sharps Prevention Guide [https://www.cdc.gov/sharpsafety/pdf/sharpsworkbook\\_2008.pdf](https://www.cdc.gov/sharpsafety/pdf/sharpsworkbook_2008.pdf)

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## Session 3: Occupational Health

# Secondary Prevention: Post-Exposure Management & Prophylaxis (PEP)

- Immediate management
- Rapid access to testing, PEP
- Clear policies & procedures (injury reports, sharps injury log)
- Reporting to occ health

- CDC Sharps Prevention Guide:  
[https://www.cdc.gov/sharpssafety/pdf/sharpsworkbook\\_2008.pdf](https://www.cdc.gov/sharpssafety/pdf/sharpsworkbook_2008.pdf)
- Dental Sharps Screening Form:  
<https://www.cdc.gov/oralhealth/infectioncontrol/pdf/screening-update.pdf>  
Dental Sharps Auditing:  
<https://www.cdc.gov/oralhealth/infectioncontrol/pdf/device-update.pdf>
- Data Display Posters (editable to clinic/ASC/ED, enter facility data and data labels print with customizable logo, general awareness, suture awareness etc):  
<https://www.cdc.gov/nora/councils/hcsa/stopsticks/postertemplates.html>
- Staff education videos:  
<https://www.cdc.gov/nora/councils/hcsa/stopsticks/video.html> ,  
<https://vimeo.com/6578874>

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## Session 3: Occupational Health

### Session #3 Quiz

A 24 y/o F RN is diagnosed with pertussis after a clinic exposure. What is the most appropriate work management for this healthcare worker, 4 days out from the start of the catarrhal stage (nasal congestion/sneezing/conjunctival suffusions)

- ☐ A. Allow continuation of direct patient care, with mask
- ☐ B. Remove from direct patient care (e.g., phone triaging but continue in-clinic work)
- ☐ C. Exclude from duty from start of catarrhal stage through 3<sup>rd</sup> week after paroxysmal cough
- ☐ D. 3 days after start of effective antibiotics

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## Session 3: Occupational Health

### Other Clinic Exposures

- Measles, mumps
- Pertussis
- Hepatitis A
- Varicella zoster
- MDROs (CRE, CRAB, ESBL, MRSA)
- Flu, CMV, viral URIs
- TB
- Conjunctivitis (adenovirus)
- Strep pyogenes (GAS, necrotizing soft tissue infections)
- Meningococcal meningitis
- Scabies >> lice

### Work Restriction Policies

- HCW education (risks, reporting, PEP)
- Policies / procedures (clear restrictions, supervisor accountable for removing personnel from duty)
- Outbreak response plan (notifying exposed HCWs + patients exposed potentially by HCWs)

- Full work Restriction Guidelines provided on list serv

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## Session 3: Occupational Health

### Vaccinations

#### Preplacement medical evaluation

- Assess immunity to Vaccine Preventable Diseases (VPDs)
- Collaborate with other depts.
- Oversight by licensed HCP responsible for pre-exposure vaccination

#### Strategies to improve uptake

- Organization leaders as role models
- Campaigns
- Free access
- Incentives (e.g., coupons to cafeteria, gift certificates)
- Flexible worksite vaccine delivery
- Monitor & report vaccine rates

MMWR 2011;60(RR07):1-45; <https://www.cdc.gov/mmwr/preview/mmwrhtml/00050577.htm>

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## Session 3: Occupational Health

Hepatitis B	Exposure to blood, body fluids non-immune ( HBsAb <5) 1-2 mos after series completion HBsAb	Engerix-B (3-dose) Recombivax HB (3 dose) Heplisav-B (2-dose)
Influenza		1 dose annually
Measles, mumps, rubella	Born > 1957 No serologic evidence (measles IgG(-) / no evidence prior vaccination	2 doses MMR 4 wks apart
Varicella	No serologic evidence (VZV IgG (-)) No diagnosis prior VZV (chickenpox or shingles)	2 doses varicella 4 wks apart
Pertussis	pregnant HCP ea pregnancy	Tdap
Meningococcal	High risk: microbiologists	Menactra, Menveo - MenACWY Bexero - MenB
Not generally recommended: polio, hepatitis A, pneumococcal		

MMWR 2011;60(RR07):1-45; <https://www.cdc.gov/mmwr/preview/mmwrhtml/00050577.htm>

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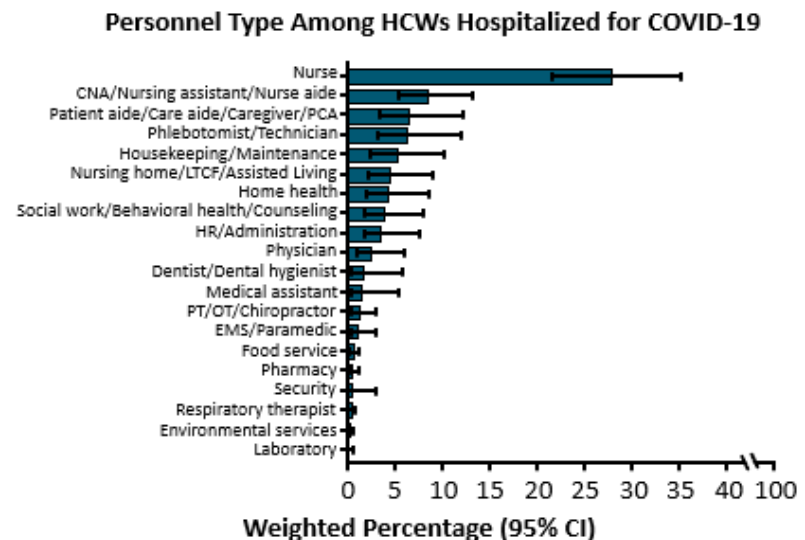
## Session 3: Occupational Health

### COVID-19 in Healthcare Workers

#### Lost on the frontline

- 3,544 US HCWs (15 KS, 77 MO)
- US-UK study of 100k(+) HCWs
- HCW > 3 x more likely to get infected
- Household members HR=1.79 (95% CI 1.1 – 2.91) vs HR 0.86 general population (non-direct care workers' families same as gen pop)

[Lost on the frontline](#), the Guardian 2/18/21  
Nguyen L., et al Lancet 2020;5:e475  
Kambhampati MMWR 2020;69:1576



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## Session 3: Occupational Health

### Inadequacies in Outpatient PPE

#### Re-use or inadequate PPE

- Ambulatory HCWs **HR 6.9** vs general population
- Outpatient hospital clinic HCWs **HR 10.6**
- 16-19% reported re-use PPE
- 12% inadequate PPE

COPE (COronavirus  
Pandemic  
Epidemiology)  
Consortium, ongoing epi  
collective research  
<https://www.monganinstitute.org/cope-consortium>

Download app:  
<https://covid.joinzoe.com/us>

Nguyen L., et al Lancet 2020;5:e475

Participant Setting	Age-Adjusted Risk of SARS-CoV-2+ HR (95% CI)	Multivariate-Adjusted Risk of SARS-CoV-2+ HR (95% CI)	HCWs Reporting Reused PPE, %	HCWs Reporting Inadequate PPE, %
General community	1 (reference)	1 (reference)	—	—
Front-line HCW				
▪ Inpatient	23.6 (21.2-26.3)	24.3 (21.8-27.1)	23.7	11.9
▪ Nursing homes	16.5 (13.6-20.0)	16.24 (13.4-19.7)	15.4	16.9
▪ Outpatient hospital clinics	10.6 (8.1-14.3)	11.2 (8.4-14.9)	16.3	12.2
▪ Home health sites	7.79 (5.6-10.9)	7.9 (5.6-11.0)	14.7	15.9
▪ Ambulatory clinics	6.9 (4.9-9.0)	6.9 (5.1-9.4)	19.3	11.8
▪ Other	9.42 (7.4-12.0)	9.5 (7.5-12.1)	12.0	13.8

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## Session 3: Occupational Health

### Absenteeism (Presenteeism)

Exposed (sick) and may be working

- **57% HCWs (53% ambulatory) - asked to return to work (pre-CDC modified worker criteria)**
- **48% DID return to work**
- **3% worked WITH symptoms (4-5% in long-term care)**

TABLE 3. Characteristics of health care personnel (HCP) with higher-risk exposure, by type of facility where exposure occurred — Minnesota, March 6–July 11, 2020\*

Characteristic	No. (%)							
	Type of facility							
	Type of congregate living/ long-term care facility			All congregate settings	Acute care	Ambulatory care	Other settings <sup>†</sup>	Overall
	Skilled nursing	Assisted living	Group home					
HCP with higher-risk exposures	1,396 (26)	799 (15)	381 (7)	2,576 (48)	1,953 (36)	306 (6)	539 (10)	5,374 (100)
Facilities with confirmed COVID-19 investigations resulting in HCPs reporting symptoms during monitoring	113 (14)	165 (20)	145 (18)	423 (51)	78 (9)	127 (15)	199 (24)	827 (100)
Median (IQR) days from last exposure to symptom onset	7 (5–10)	8 (6–9)	7 (4–10)	7 (5–10)	8 (5–10)	8 (6–11)	6 (3–10)	7 (5–10)
HCP tested for SARS-CoV-2 during monitoring	258 (27.1)	199 (28.3)	86 (43.7)	543 (32.6)	312 (25.6)	52 (26.5)	114 (35.8)	1,021 (30.0)
HCP asked to return to work <sup>§</sup> during monitoring	591 (65.5)	316 (67.1)	113 (60.2)	1,022 (65.3)	463 (45.0)	8 (53.4)	158 (51.8)	1,721 (56.6)
HCP returned to work <sup>§</sup> during monitoring	300 (55.4)	283 (60.1)	100 (52.4)	883 (56.5)	382 (37.2)	65 (44.5)	84 (43.9)	1,464 (48.1)
HCP reporting working with symptoms <sup>§</sup> during monitoring	41 (4.5)	25 (5.3)	9 (4.7)	75 (4.8)	13 (1.3)	3 (2.1)	7 (2.3)	98 (3.2)

Fell A., MMWR Oct 2020;69;1605

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## Session 3: Occupational Health

### High-Risk Exposures & Quarantine

Exposure (risk)	PPE Used	Work Restrictions	MODIFIED work restrictions (non-vaccinated, staff contingency plans)	Vaccinated HCWs
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CDC Potential work exposure in vaccinated

<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>

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## Session 3: Occupational Health

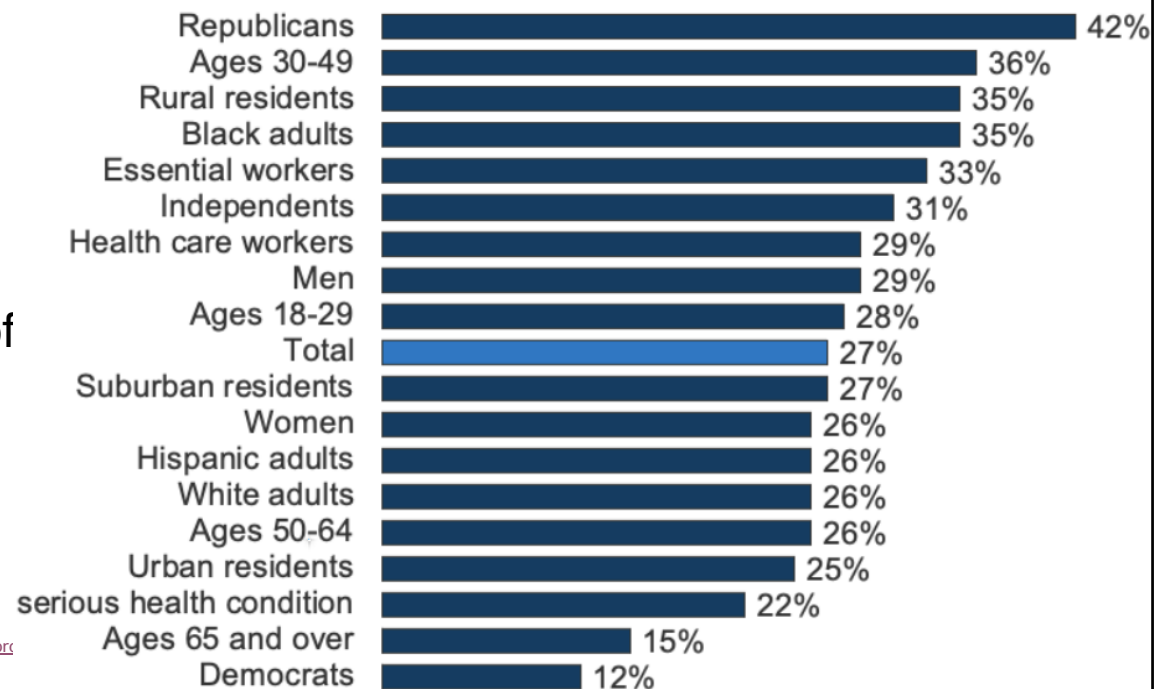
### Vaccine Public Perceptions

87% believe effective in curbing virus **YET** 61% will “wait and see”

- 82% trusted doctors rec of vaccine vs 64% trusted CDC, 62% FDA

KFF COVID-19 Vaccine monitor Health Tracking Poll, <https://www.kff.org/covid-19-vaccine-monitor-dashboard/#intentions>  
COVID collaborative, 9/2020

% each group saying if COVID-19 vaccine determined safe they would **probably NOT get it or definitely not get it**



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## Session 3: Occupational Health

### Vaccine HCW's Perceptions

36% HCWs were willing to take vaccine as soon as available

- 56% “wait and see”

Higher acceptance increased with:

- Increasing age, education, income level

Lowest acceptance:

- Females (31% vs 49% males vs 43% trans/non-binary)
- Rural (26% vs 37% urban vs 35% suburban)
- Conservative / republican (21% vs 42% liberal/Democrat)
- Blacks & Native Americans (19% vs 20% respectively vs 44% Asians)
- Youngest (34% aged 18-30 vs 47% >70 yrs)

Shekhar et al. COVID-19 vaccine acceptance among US healthcare workers. MedRxiv;  
<https://doi.org/10.1101/2021.01.03.21249184>

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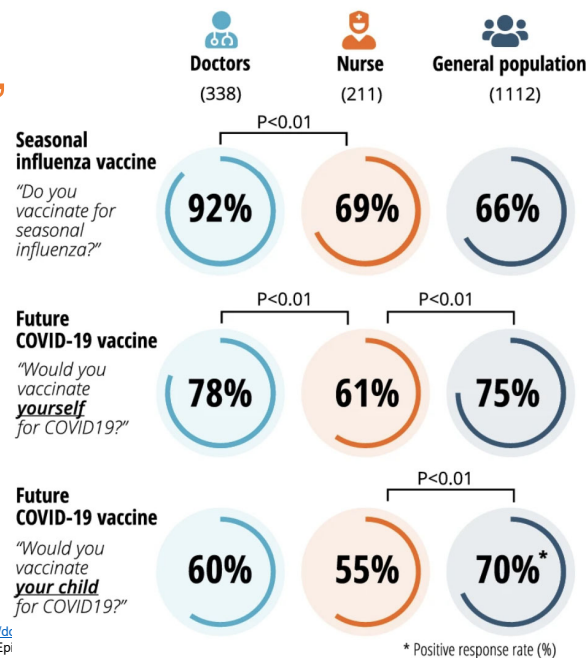


## Session 3: Occupational Health

### Vaccine HCW's Perceptions

Physicians, Residents,  
med students, APRN,  
PAs

- 49% would get vaccinated immediately
- 48% wait to review data



RNs, LPNs, OT, PT,  
nutritionists, SWs

- 27% would get vaccinated immediately
- 62% wait to review data
- ANF survey (13k RNs): 36% won't get vaccinated at all, 31% unsure
- 57% somewhat or very comfortable discussing vaccine w/ patients

Shekhar et al. COVID-19 vaccine acceptance among US healthcare workers. MedRxiv; <https://doi.org/10.1101/2020.12.15.20268881>  
Dror A., et al. Vaccine hesitancy: the next challenge in the fight against covid-19. European J Epidemiol. 2020;35(12):1255-1262. <https://doi.org/10.1007/s10654-020-00700-0>  
American Nurses Foundation. <https://www.nursingworld.org/practice-policy/work-environment/health-care-workers-proper-care-covid-19-vaccine-survey/>

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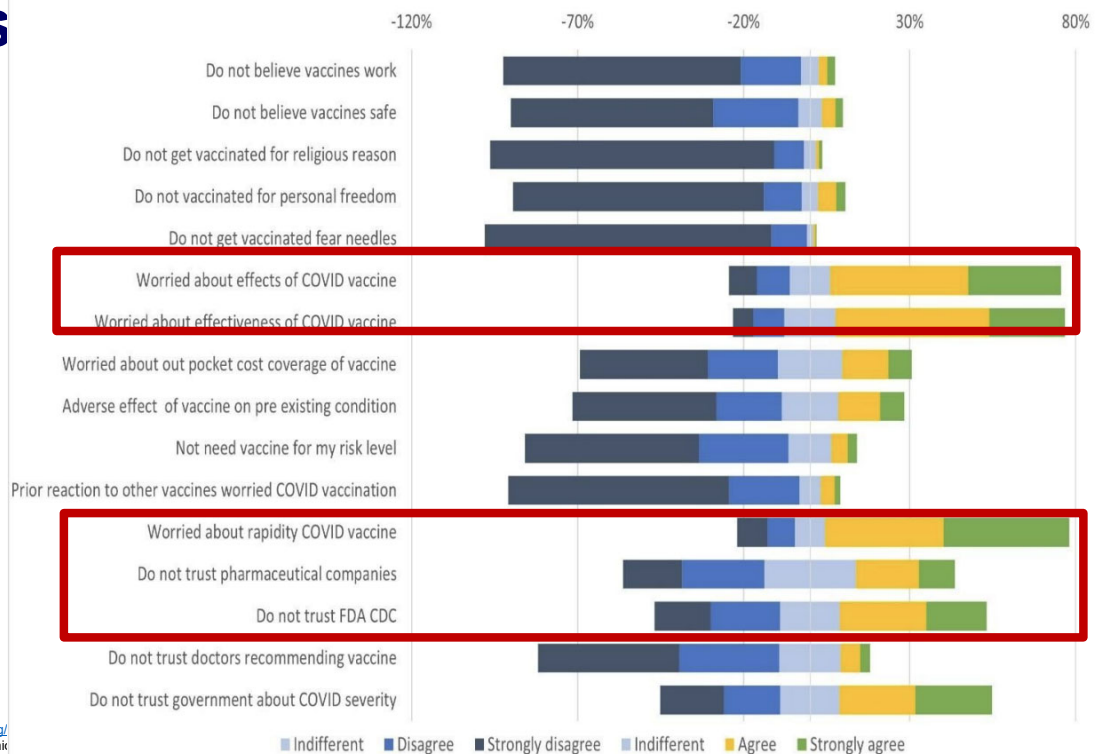


## Session 3: Occupational Health

### Vaccine HCW's Attitudes

#### Primary concerns

- Safety (short-term > long)
- Speed of roll-out
- Distrust pharmaceutical companies, FDA, govt.



Shekhar et al. COVID-19 vaccine acceptance among US healthcare workers. MedRxiv; <https://doi.org/10.1101/2020.12.15.20268881>  
 Dror A., et al. Vaccine hesitancy: the next challenge in the fight against covid-19. European J Epidemiol  
 American Nurses Foundation. <https://www.nursingworld.org/practice-policy/work-environment/health-s-you-need-to-know/covid-19-vaccine-survey/>

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### Public's Vaccination Choice Most Dependent upon HCWs Vaccine Recommendations

*Higher levels of trust in personal medical  
professionals*



**82%**

Trust their own  
doctor's  
recommendation



**67%**

Trust their own  
pharmacist's  
recommendation

*Lower levels of trust in federal  
government officials*



**62%**

Trust the FDA's  
recommendation



**34%**

Trust the president's  
recommendation

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**40% HCWs, including up to 90% LTC HCWs  
have not gotten vaccinated**

### Addressing Biggest Concerns Safety Motivators

- Speak to the V-safe (>4 million responding) with ongoing adverse effects monitoring- in line with low rates in clinical trials (1 yr out from phase 1-2)
- Anaphylaxis in line with other vaccines

\*COVID Data Tracker data as of 2/16/21 [https://emergency.cdc.gov/coca/ppt/2021/030921\\_slide\\_2.pdf#page=14](https://emergency.cdc.gov/coca/ppt/2021/030921_slide_2.pdf#page=14)  
Shimabukuro T et al JAMA 2021

U.S. reports to VAERS after COVID-19 vaccination  
through February 16, 2021\*

#### VAERS

Vaccine	N	Non-serious AEs (%)	Serious AEs <sup>†§</sup> (%)
Moderna	56,567	54,708 (97)	1,859 (3)
Pfizer-BioNTech	48,196	43,974 (91)	4,222 (9)
<b>Total</b>	<b>104,763</b>	<b>98,682 (94)</b>	<b>6,081 (6)</b>

Anaphylaxis reports to VAERS following COVID-19 vaccines\*

Characteristics	Pfizer-BioNTech (N = 50)	Moderna (N = 21)
	4.7 / million doses	2.5 / million doses

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### Addressing Biggest Concerns

#### Pregnancy concerns

- No evidence of fertility nor pregnancy harms from vaccine
- Some evidence of infertility secondary to COVID-19 (sperm production)

#### V-safe: 30,000 pregnant responding

Outcomes	Background rates*	V-safe pregnancy registry overall
<b>Pregnancy outcome</b>		
Miscarriage (<20 weeks)	26%	15% <sup>†</sup>
Stillbirth (≥20 weeks)	0.6%	<1%
<b>Pregnancy complications</b>		
Gestational diabetes	7-14%	10%
Preeclampsia or gestational hypertension <sup>§</sup>	10-15%	15%
Eclampsia	0.27%	0%
Intrauterine growth restriction	3-7%	1%
<b>Neonatal</b>		
Preterm birth	10.1%	10%
Congenital anomalies <sup>‡</sup>	3%	4%
Small for gestational age <sup>^</sup>	3-7%	4%
Neonatal death	0.38%	0%

COVID Data Tracker data as of 2/16/21 [https://emergency.cdc.gov/coca/ppt/2021/030921\\_slide\\_2.pdf#page=14](https://emergency.cdc.gov/coca/ppt/2021/030921_slide_2.pdf#page=14)  
Shimabukuro T et al JAMA 2021

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### Addressing Biggest Concerns

#### **Efficacy**

Most convincing statements convinced people to vaccinate:

1. *“At 95% efficacy this vaccine is extraordinarily effective at protecting you from the virus.”*
2. *“Vaccines will help bring this pandemic to an end.”*
3. *“Getting vaccinated will help keep you, your family, your community, and your country healthy & safe.”*

De Beaumont Foundation COVID-19 poll: <https://www.debeaumont.org/covid-vaccine-poll/>

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### Messaging: Tailor to the Audience

#### Latinx

Only group more motivated by the statement that the vaccine is “the right thing to do” than that “getting the vaccine will keep your family & friends healthy & safe”

#### Black

Motivated more than general public by the potential to stop wearing masks

>50: “saving lives”

<50: “return to normal”

#### Republican

“Return to normal”, next highest priority is to reopen economy

Messages about personal health/safety less impactful

#### Women

Young women greatest consequence is “damage from lockdowns” & “potential for family/friends to become ill”

#### Rural

Emphasize safety (rural much less confidence in “safety”)

“Return to normal”

De Beaumont Foundation COVID-19 poll: <https://www.debeaumont.org/covid-vaccine-poll/>

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### Words to USE and LOSE

USE	LOSE
Medical experts	Health experts
Research	Discover / create / invent
Medical researchers	Scientists, drug companies
Damage from lockdowns	Inability to travel easily & safely
Transparent rigorous process	The \$ spent / #'s of trials / #'s people
Safety ( <b>emphasize continual monitoring</b> )	Security
Pharmaceutical companies	Drug companies
Your family, <b>personalize it</b>	Your community (avoid a sense of responsibility or altruistic action for betterment of society)

De Beaumont Foundation COVID-19 poll: <https://www.debeaumont.org/covid-vaccine-poll/>

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USE	LOSE
<b>Benefits</b> from getting vaccinated	Consequences of NOT getting vaccinated
Advanced/ ground-breaking	Historic
Vaccination	Injection / inoculation / shot
Taking vaccine will keep you safe	Taking vaccine is the “right thing to do”
Skeptical (ok to question, have concerns)	Misled/confused (don’t over-emphasize unknowns or minimize side effects)
Relate to personal /community healthcare workers (RNs especially)	Avoid political or administrative errors, emphasize personal doctor or nurses over CDC, or FDA recs

De Beaumont Foundation COVID-19 poll: <https://www.debeaumont.org/covid-vaccine-poll/>

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### 3-pronged approach to the vaccine hesitant HCW:

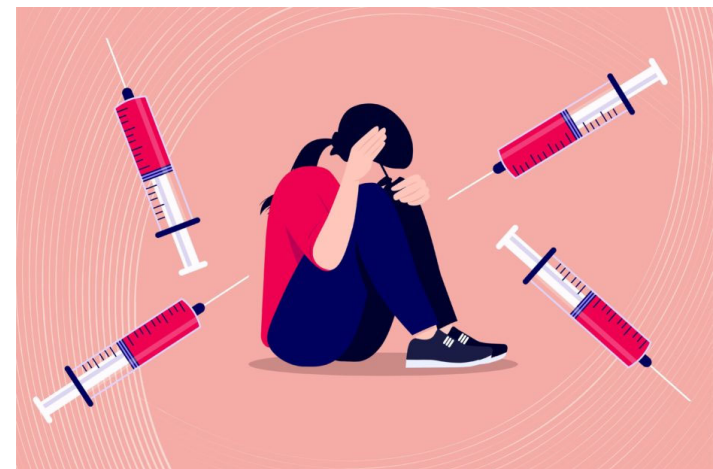
1. Emphasize likelihood of severe side effect  $<0.5\%$   
(numerical data *reassuring* in this case)
  2. Explain that a minor reaction is a sign the body is building protection  
(e.g., "T cell's are releasing IFN & cytokines to stimulate B's, which is why you are getting the fever and aches")
  3. Reassure that most side effects last only a day or 2
- **Educate, educate, educate:** webinars and seminars to explain what is known and what isn't
  - **Monitor social media:** see what erroneous claims are out there and refute them (e.g., integration into DNA impossible, fertility evidence of covid-19 infection not vaccine, mRNA & adenoviral vector vaccine studied since 1990s, technology was already there from prior SARS, MERs, Ebola etc rapid vaccines, with greater #'s of participants than any other trials)

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- **Find the right spokesperson:** Workers' contemporaries are most effective at addressing concerns  
There's more trust sometimes in someone who seems to be a peer than someone who seems to be perhaps – an expert telling you what to do.
- **Emphasize the ethical responsibility:** Make it clear that **HCWs are expected** to get vaccinated. Some workers might cite religious reasons for refusing vaccination, but religious figures can, and will, explain why vaccination is a duty.



Smith, T. AMA. Dealing with COVID-19 vaccine hesitancy among health care workers. March 4, 2021.

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### Resources

- Association for Professionals in Infection Control and Epidemiology (APIC)  
<https://apic.org/advocacy/regulations/osha/>
- United States Department of Labor: Occupational Safety and Health Administration (OSHA)  
<https://www.osha.gov/>
- Association of Occupational Health Professionals in Healthcare  
<https://www.aohp.org/aohp/>
- Centers for Disease Control and Prevention  
<https://www.cdc.gov/workplacehealthpromotion/tools-resources/workplace-health/occupational-safety.html>
- National Institute for Occupational Safety and Health <https://www.cdc.gov/niosh/>

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## Session 3: Occupational Health

### Next Steps

1. Create a process to onboard new healthcare workers into your organization to include mandatory requirements per federal, state, OSHA and organizational standards.
2. Develop a process map to initiate when a healthcare worker sustains a bloodborne pathogen exposure.
3. Fill out the Facility Immunization Checklist to better determine in which ways your facility can improve the immunization rates among HCWs, including COVID-19 immunization rates.

See page 224 of the APIC Immunization Toolkit:

[https://apic.org/Resource /TinyMceFileManager/Practice Guidance/HCW Immunization Toolkit 122012.pdf](https://apic.org/Resource/TinyMceFileManager/Practice%20Guidance/HCW%20Immunization%20Toolkit%20122012.pdf)

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## Session 3: Occupational Health

### Q&A



Please type your questions or comments in the chat.

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## Session 3: Occupational Health

### Today's Feedback Questionnaire

Immediately following today's session, you will be asked to complete a brief feedback questionnaire.

While there, be sure to submit a request for KDHE Epidemiology Hotline materials to be mailed to you: Laminated sheet and/or magnet.



Session #3 feedback link:

<https://www.surveymonkey.com/r/KDHE-LAN-session3>

**REPORTABLE DISEASES IN KANSAS**  
(K.S.A. 65-118, 65-128, 65-6001 - 65-6007, K.A.R. 28-1-2, 28-1-4, and 28-1-18. Changes effective as of 5/1/2018)

**For 4-hour reportable diseases:** report to the KDHE Epidemiology Hotline: 877-427-7317. For all other reportable diseases: fax a Kansas Reportable Disease Form and any lab results to your local health department or to KDHE: 877-427-7318 within 24 hours or by the next business day.

Acute flaccid myelitis	Influenza, novel A virus infection
Anthrax	Legionellosis
Anaplasmosis	Listeriosis
Arboviral disease, neuroinvasive and nonneuroinvasive (including chikungunya virus, dengue virus, La Crosse, West Nile virus, and Zika virus)	Lyme disease
Babesiosis	Malaria
Blood lead levels (any results)	Measles (rubeola)
Botulism	Meningococcal disease
Brucellosis	Mumps
Campylobacteriosis	Pertussis (whooping cough)
Candida auris	Plague (Yersinia pestis)
Carbapenem-resistant bacterial infection or colonization	Poliovirus
Carbon monoxide poisoning	Psittacosis
Chancroid	Q Fever (Coccillia burnetii, acute and chronic)
Chickenpox (varicella)	Rabies, human
Chlamydia trachomatis infection	Rabies, animal
Cholera	Rabies, bat
Coccidioidomycosis	Salmonellosis, including typhoid fever
Cryptosporidiosis	Severe Acute Respiratory Syndrome-associated coronavirus (SARS-CoV-2)
Cyclosporiasis	Shiga toxin-producing Escherichia coli (STEC)
Diphtheria	Shigellosis
Ehrlichiosis	Smallpox
Giardiasis	Spotted fever rickettsiosis
Gonorrhea (include antibiotic susceptibility results, if performed)	Streptococcus pneumoniae, invasive disease
Hampshire influenza, invasive disease	Syphilis, all stages, including congenital syphilis
Hansen's disease (leprosy)	Tetanus
Hantavirus	Toxic shock syndrome, streptococcal and other
Hemolytic uremic syndrome, post-diarrheal	Transmissible spongiform encephalopathy (TSE) or prion disease
Hepatitis, viral (A, B, C, D, and E, acute and chronic)	Trichinellosis or trichinosis
Hepatitis B during pregnancy	Tuberculosis, active disease
Hepatitis B in children <5 years of age (report all positive, negative, and inconclusive lab results)	Tuberculosis, latent infection
Histoplasmosis	Tularemia, including laboratory exposures
Human Immunodeficiency Virus (HIV) (Report the CD4+ T-lymphocyte cell counts, report viral load of any value, and report each pregnancy of women diagnosed with HIV)	Varicella, post vaccination infection or secondary reinfection
Influenza deaths in children <18 years of age	Vancomycin-intermediate and resistant Staphylococcus aureus (VISA and VRSA)
Leptospirosis	Vibrios (all cholerae and non-cholerae Vibrio species)
	Yellow fever

**Outbreaks, unusual occurrence of any disease, exotic or newly recognized diseases, suspect acts of terrorism, and unexplained deaths due to an unidentified infectious agent should be reported within 4 hours by telephone to the Epidemiology Hotline: 877-427-7317.**

**Indicates that a telephone report is required by law within four hours of suspect or confirmed cases to KDHE: toll-free at 877-427-7317.**

**Indicates that bacterial isolate, original clinical specimen, or nucleic acid must be sent to: Division of Health and Environmental Laboratories, 6810 SW Dwight St, Topeka, KS 66620-0001. Phone: (785) 296-1620.**

Submit request for laminated hotline flyer or magnet in feedback questionnaire.

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## KDHE-KHC Infection Prevention LAN for Outpatient Settings

### Upcoming Sessions

<b>April 8</b>	<b>Personal Protective Equipment</b>
April 22	Hand Hygiene
May 6	Environmental Cleaning & Disinfection
May 20	Device Reprocessing
June 3	Antimicrobial Stewardship
June 17	Learning/Sharing Forum

Recordings and handouts of past sessions can be located here:

[www.khconline.org/LAN](http://www.khconline.org/LAN)

#### NEW LIST-SERV Now open!

- Connect with your faculty and peers
- LAN communications will come through listserv

Address emails to:

[KANSAS-OUT-IP@LIST.KHCONLINE.ORG](mailto:KANSAS-OUT-IP@LIST.KHCONLINE.ORG)

(must be all caps)

All LAN enrollees are included.  
See listserv information sheet.

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## KDHE-KHC Infection Prevention LAN

### Questions?

**Contact:**

**KDHE  
Healthcare-Associated Infections and Antimicrobial Resistance (HAI/AR) Program**

Phone: (785) 296-4167

Email: [kdhe.HAIARProgram@ks.gov](mailto:kdhe.HAIARProgram@ks.gov)

*Kansas Healthcare Collaborative*

Michele Clark

Senior Director of Quality Initiatives & Special Projects  
(785) 231-1321 or [mclark@khconline.org](mailto:mclark@khconline.org)

*Kansas Department of Health & Environment*

Bryna Stacey

HAI/AR Program Director  
[Bryna.Stacey@ks.gov](mailto:Bryna.Stacey@ks.gov)

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