

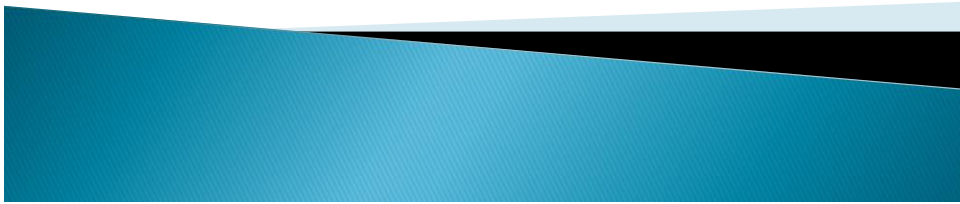


Nebraska Infection
Control Network

OUTBREAK MANAGEMENT AND PREVENTION

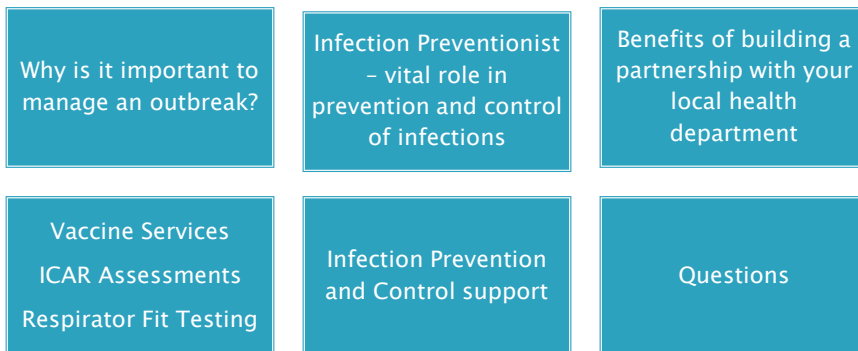
LOCAL HEALTH DEPARTMENT

NANCY ESCH MPH, RN, IBCLC, CIC
CENTRAL DISTRICT HEALTH DEPARTMENT



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Objectives



2

Importance of managing an outbreak – vulnerable population

Infections in the NH population have been associated with:

- ▶ high rates of morbidity and mortality
- ▶ Rehospitalization
- ▶ extended hospital stay
- ▶ substantial healthcare expenses

Risk factors that predispose older adults to infections:

- ▶ presence of indwelling devices
- ▶ recent admission to an acute care facility
- ▶ functional impairment
- ▶ multiple comorbidities
- ▶ overexposure of antibiotics – elevating the risk of colonization & infection with MDRO's

[Common infections in nursing homes: a review of current issues and challenges – PMC \(nih.gov\)](#)



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Infection Preventionist

Have a vital role in preventing and controlling the spread of Infections.



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2016 CMS mandated that LTCF's employ IPs with specialized training in IPC

**Prins et. al (2025): "Most LTCF IPs learn about the field and their responsibilities while on the job; thus, they are often under-resourced and not fully prepared to meet the CMS requirements."

- ▶ Limited time
- ▶ Staff turnover
- ▶ Competing priorities/dual roles
- ▶ Stress
- ▶ Limited continuing education opportunities



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Benefits of Building a Partnership With Your Local Health Department



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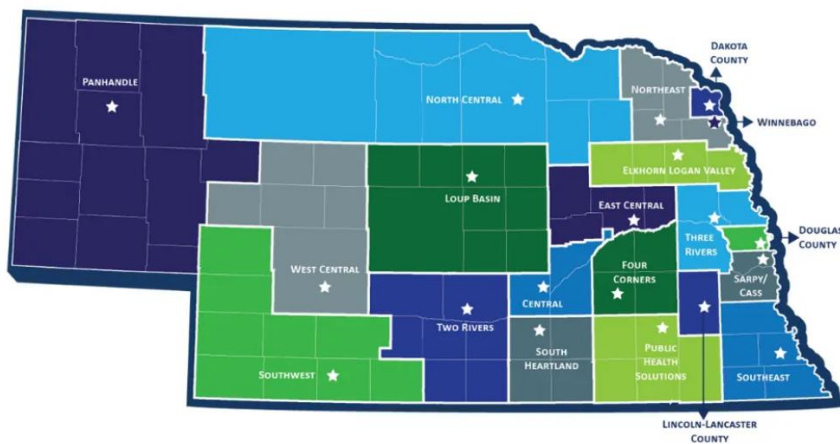
Benefits of Building a Partnership With Your Local Health Department

Local Health Departments (LHD) promote and protect the health of people and the communities where they live and work – NACCHO.org



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Nebraska Local health Departments



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HEALTH DISTRICT	COUNTIES
Central District Health Department	Merrick, Hall, and Hamilton counties
Douglas County Health Department	Douglas County
East Central District Health Department	Boone, Nance, Platte, and Colfax counties
Elkhorn Logan Valley Public Health Department	Madison, Stanton, Cuming and Burt counties
Four Corners Health Department	Polk, Butler, York and Seward counties
Lincoln-Lancaster County Health Department	Lancaster County
Loup Basin Public Health Department	Blaine, Custer, Garfield, Greeley, Howard, Loup, Sherman, Valley, and Wheeler counties
North Central District Health Department	Cherry, Keya Paha, Boyd, Brown, Rock, Holt, Knox, Antelope, and Pierce counties
Northeast Nebraska Public Health Department	Cedar, Dixon, Wayne and Thurston counties
Panhandle Public Health District	Deuel, Dawes, Box Butte, Sheridan, Banner, Morrill, Garden, Kimball, Cheyenne, Grant, Sioux, and Scotts Bluff counties
Public Health Solutions	Fillmore, Saline, Thayer, Jefferson and Gage counties
Sarpy/Cass Health Department	Sarpy and Cass counties
South Heartland District Health Department	Adams, Clay, Nuckolls, Webster counties
Southeast District Health Department	Otoe, Johnson, Nemaha, Pawnee and Richardson counties
Southwest NE Public Health Department	Chase, Dundy, Frontier, Furnas, Hayes, Hitchcock, Perkins, Red Willow and Keith counties
Three Rivers Public Health Department	Dodge, Washington and Saunders counties
Two Rivers Public Health Department	Dawson, Buffalo, Gosper, Phelps, Kearney, Harlan, and Franklin counties
West Central District Health Department	McPherson, Logan, Lincoln, Hooker, Arthur and Thomas counties

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Local Health Departments



- Immunizations
- Food Safety
- Infectious Disease
- Chronic Disease
- Injury and Violence Prevention
- Environmental Health
- Maternal and Child Health
- Emergency Preparedness
- Tobacco Control

NACCHO.org

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LHD → Assist Facilities:

1. Infection Prevention
 2. Outbreak Response
- Vaccine Services
 - ICAR Assessments
 - Respirator Fit-Testing & Training
 - IPC Support
 - Reporting

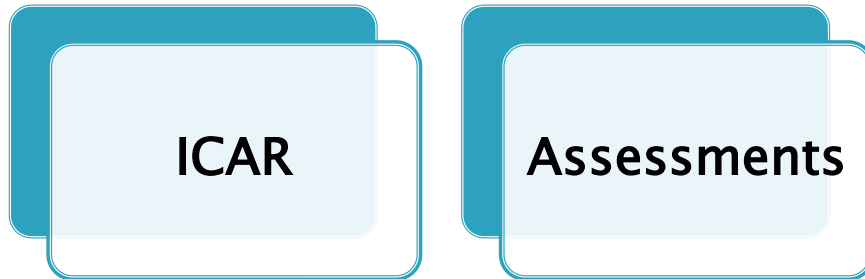
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Vaccine Services

- Vaccines can help prevent or lessen the degree of an outbreak
- LHD provide community vaccine clinics and education – check with your local health department

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LHDs assist ICAP with



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ICAR Assessments

Infection Control Assessment and Response



Assess a healthcare facility's Infection Prevention and Control Practices.



Excel Document with Assessment, Actions, Interventions, and Resources



Guide quality improvement activities (by addressing identified gaps).

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ICAR Assessment

Facility Demographics

Infection control Program and Infrastructure

Healthcare Personnel and Resident Safety

Surveillance and Disease Reporting

Hand Hygiene

Personal Protective Equipment

Respiratory Hygiene/Cough Etiquette

Prevention of Healthcare Associated Infections (HAI) such as: C-diff (CDI), CAUTI, CLABSI

Injection Safety and Point of Care Testing

Environmental Cleaning



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ICAR Assessment (con't)

Antibiotic Stewardship

ICRA - before construction or remodeling of facility

Water Management

COVID-19

Laundry

Discuss findings day of assessment

Written ICAR assessment sent to facility

Strengths and Weaknesses

Updated Resources and References

Defined Abbreviations



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ICAR Excel Sheet Provided to Facility

Infection Control Program and Infrastructure	010300	The facility has a process for reviewing infection surveillance data and infection prevention activities (e.g., presentation at QA committee)	Yes	IPs on Quality Committee, use of routine agenda. No separate infection control committee, but interest in possibly initiating.
Infection Control Program and Infrastructure	010400	Written infection control policies and procedures are available and based on evidence-based guidelines (e.g., CDC/NICPAC), regulations, or standards.	Yes	Written policies and procedures are accessible to staff. Policies are written specific to MCC.
Infection Control Program and Infrastructure	010401	Written infection control policies and procedures are reviewed at least annually or according to state or federal requirements, and updated if appropriate.	Yes	
Infection Control Program and Infrastructure	010500	The facility conducts an infection control risk assessment annually.	Yes	Risk assessment completed annually at beginning of calendar year. IP obtains feedback from department leads.
Infection Control Program and Infrastructure	010600	The facility has a written plan for emergency preparedness (e.g., pandemic influenza or natural disaster).	Yes	
Healthcare Personnel and Resident Safety	020100	The facility has work-exclusion policies concerning avoiding contact with residents when personnel have potentially transmissible conditions which do not penalize with loss of wages, benefits, or job status.	Yes	Facility has policy for return to work related to COVID and other communicable illness, per CDC recommendations
Healthcare Personnel and Resident Safety	020200	The facility educates personnel on prompt reporting of signs/symptoms of a potentially transmissible illness to a supervisor.	Yes	
Healthcare Personnel and Resident Safety	020300	The facility conducts baseline Tuberculosis (TB) screening for all new personnel.	Yes	
Healthcare Personnel and Resident Safety	020301	The facility has a policy to assess healthcare personnel risk for TB (based on regional, community data) and requires periodic (at least annual) TB screening if indicated.	Yes	Risk assessment and screening questionnaire in place. TB skin testing or IGRA lab not performed upon hire.
Healthcare Personnel and Resident Safety	020400	The facility offers Hepatitis B vaccination to all personnel who may be exposed to blood or body fluids as part of their job duties.	Yes	Full immunization records are requested upon hire, for all CDC recommended vaccines for HCP.

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Resources

Antimicrobial Stewardship	IC	IC - Antimicrobial Stewardship	CDC - Core Elements of Antibiotic Stewardship for Nursing Homes - Implementation Resources	Guidance	2021	https://www.cdc.gov/antimicrobial-stewardship/core-elements/antimicrobial-stewardship-core-elements-nursing-homes-implementation-resources/
Antimicrobial Stewardship	IC	IC - Core Elements List	CDC - The Core Elements of Antibiotic Stewardship for Nursing Homes	Guidance	2015	https://www.cdc.gov/antimicrobial-stewardship/core-elements/antimicrobial-stewardship-core-elements-nursing-homes/
Antimicrobial Stewardship	IC	IC - Core Elements Checklist	CDC - The Core Elements of Antibiotic Stewardship for Nursing Homes - Checklist	Guidance	2015	https://www.cdc.gov/antimicrobial-stewardship/core-elements/antimicrobial-stewardship-core-elements-nursing-homes-checklist/
Antimicrobial Stewardship	IC	IC - IAP	APSA Antimicrobial Stewardship Assessment and Education Program	Resource		https://www.apsa.org/
Center-associated Urinary Tract Infection (CAUTI)	IC	IC - IAP - CAUTI	IC - IAP - Checklist for Urinary Infection	Guidance		https://www.cdc.gov/nursing-home-care/urinary-infection-prevention/
Center-associated Urinary Tract Infection (CAUTI)	IC	IC - IAP - Urinary Catheter	IC - IAP - Revised Minimum Criteria for Urinary Catheter Use	Guidance		https://www.cdc.gov/nursing-home-care/urinary-catheter-use/
Healthcare-Associated Infection (HAI)	IC	IC - CAUTI	IC - Information for Healthcare Professionals about CAUTI	Guidance		https://www.cdc.gov/nursing-home-care/urinary-infection-prevention/
ICAP-09	IC	IC - ICAP-09/09-09	IC - Interim Infection Prevention and Control Recommendations for Healthcare Personnel During the Coronavirus Disease 2019 (COVID-19) Pandemic	Guidance	2020	https://www.cdc.gov/media/releases/2020/s1119-covid-19-hcp.html
ICAP-09	IC	IC - ICAP-09/09-09	IC - Interim Guidance for Managing Healthcare Personnel with SARS-CoV-2 Infection or Exposure to SARS-CoV-2	Guidance	2020	https://www.cdc.gov/media/releases/2020/s1119-covid-19-hcp.html
ICAP-09	IC	IC - IAP	IC - Considerations for Optimizing the Capacity of Long-Term Care Facilities to Respond to COVID-19	Guidance	2020	https://www.cdc.gov/media/releases/2020/s1119-covid-19-hcp.html
Policy Development	IC	IC - IAP - Infection Control	IC - IAP - Checklist for Urinary Infection	Guidance		https://www.cdc.gov/nursing-home-care/urinary-infection-prevention/
Policy Development	IC	IC - Infection Control	IC - Checklist for Urinary Infection	Guidance		https://www.cdc.gov/nursing-home-care/urinary-infection-prevention/
Subcommittee on Infection Control	IC	IC - Infection Control	IC - Checklist for Urinary Infection	Guidance		https://www.cdc.gov/nursing-home-care/urinary-infection-prevention/
Subcommittee on Infection Control	IC	IC - Environmental Cleaning	IC - Best Practices for Environmental Cleaning in Healthcare Settings	Guidance	2019	https://www.cdc.gov/media/releases/2019/s0827-environmental-cleaning.html

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LHDs assist with Respirator Fit-Testing and Training



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Prevention of Healthcare Associated Infections (HAI)

Airborne Precautions

Used to prevent spread of infectious organisms that remain suspended in the air and travel great distances due to small size - COVID, measles, smallpox, chickenpox, pulmonary TB.



STOP

**AIRBORNE
PRECAUTIONS**




STOP

EVERYONE MUST:




Clean their hands, including before entering and when leaving the room.




Put on a fit-tested N-95 or higher level respirator before room entry.

Remove respirator after exiting the room and closing the door.



Door to room must remain closed.



U.S. Department of
Health and Human Services
Centers for Disease
Control and Prevention

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OSHA REQUIREMENTS

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Respirator Fit Testing - Per OSHA

Any business that requires employees to wear a respirator must follow OSHA guidance for a Respiratory Protection Program (RPP)

1. Employers must conduct a hazard assessment
2. Employers must develop a written RPP
3. Employees must have a medical evaluation, an initial fit test and be properly trained in respirator use
4. Employers must provide annual training on the use and limitations of respirators and provide annual fit testing
5. Employers must maintain records of respirator training, medical clearance and fit testing
6. Maintain and evaluate the RPP on a regular basis (yearly)

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LHD Provide IPC Support

- Conduct investigations and collect and analyze data to track and prevent the spread of infectious diseases.
- LHD can provide up to date resources and support when an outbreak is identified.
- Each LHD has a designated Healthcare Associated Infections (HAI) liaison

NACCHO.org

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HAI Liaison Directory

Name	Title	Company	HAI Liaison	Phone	Email
Jonna Mangeot		Central DHD	Secondary	(308) 750-2500	jmangeot@cofhe.ne.gov
Nancy Esch	Infection Prevention Coordinator	Central DHD	Primary	(308) 750-3774	nesch@cdhd.ne.gov
Courtney Swick		Dakota Co. HD	Secondary	(402) 987-2164	cswick@dakotacounty.ne.gov
Jennifer Ankerstjerne		Dakota Co. HD	Tertiary	(402) 987-2164	jankestjerne@dakotacounty.ne.gov
Theresa Grove	Director	Dakota Co. HD	Primary	(402) 987-2164	tgrove@dakotacounty.ne.gov
Helen Giambrone	Disease Investigator	Douglas Co. HD	Primary	(531) 800-4250	helen.giambrone@douglascounty-ne.gov
Molly Potahl	Assistant Director/ EPI	East Central DHD	Secondary	(402) 350-4978	mpofah@ecdhfhd.ne.gov
Rebecca "Becky" Gillenwater		East Central DHD	Primary		raikenwater@ecdhfhd.ne.gov
Jill Lewis		Elkhorn Logan Valley PHD	Tertiary	(402) 529-3587	jill@elvhpd.ne.gov
Julie Nielson	R.N. Public Health Nurse	Elkhorn Logan Valley PHD	Primary	(402) 529-6044	julie@elvhpd.ne.gov
Melissa Nemecek		Elkhorn Logan Valley PHD	Secondary	(402) 529-6038	melissa@elvhpd.ne.gov
Barb Koester		Four Corners HD	Secondary	(402) 362-2621	barb@fourcorners.ne.gov
Julii Farley		Four Corners HD	Tertiary	(402) 362-2621	julii@fourcorners.ne.gov
Suzanne Phinney	Public Health Nurse	Four Corners HD	Primary	(402) 362-2621	susansp@fourcorners.ne.gov
Amy Badman		Lincoln- Lincoln Co. HD	Tertiary	(402) 441-6214	abadman@lincoln.ne.gov
Angie Elliot	RN communicable disease supervisor	Lincoln- Lincoln Co. HD	Primary	(402) 441-6257	aeliott@lincoln.ne.gov
Ashley Johnson		Lincoln- Lincoln Co. HD	Quaternary	(402) 441-8053	AJohnson@lincoln.ne.gov
Samantha Salberg		Lincoln- Lincoln Co. HD	Secondary	(402) 441-8053	SSalberg@lincoln.ne.gov
Amanda Jeffes		Loup Basin PHD	Secondary	(308) 201-0165	aieffes@lsphd.ne.gov
Catie Larsen	Emergency Response Coordinator	Loup Basin PHD	Primary	(308) 201-1941	clarsen@lsphd.ne.gov

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MDRO Tiers for Nebraska

Tier	Definition of Included Organisms and Mechanisms	Examples (not all inclusive) of organisms/mechanisms for Nebraska	Transmission-Based Precautions Recommendations
Tier 1	Never (or very rarely) been identified in the United States and for which experience is extremely limited	Novel Carbapenemases	Contact precautions until otherwise recommended by HAI/AR team
Tier 2	Primarily associated with healthcare settings and are not commonly identified in the region (i.e., not been previously identified in the region or have been limited to sporadic cases or small outbreaks), corresponding to "not detected" or "limited to moderate spread" epidemiologic stages. No current treatment options exist (pan not-susceptible) and potential to spread more widely.	Pan-resistant organisms <i>C. auris</i> Carbapenemases (e.g., KPC, NDM, OXA-48, VIM, IMP) producing organisms (CPO) <ul style="list-style-type: none"> • Enterobacterales • <i>Pseudomonas aeruginosa</i> • <i>Acinetobacter Baumannii</i> 	Enhanced barrier precautions recommended (*Contact precautions for acute/active infections or uncontained drainage/secretions).
Tier 3	Include MDROs targeted by the facility or region for epidemiologic importance that have been identified frequently across a region, indicating advanced spread, but are not considered endemic	ESBL CRE CRPA CRAB	Enhanced barrier should be strongly considered*
Tier 4	Endemic in a region and have been targeted by public health for their clinical significance and potential to spread rapidly	MRSA VRE	Enhanced Barrier Precautions based on facility risk assessment*



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When to Use Enhanced Barrier Precautions (EBP)?

- Residents who have an infection or colonization with a targeted MDRO when contact precautions do not apply.
- During high-contact care activities for **residents with chronic wounds or indwelling medical devices, regardless of their MDRO status.**

Colonization: presence of a microorganism on/in a host, with growth and multiplication of the organism, without no symptoms of illness – but contributes to the silent spread.

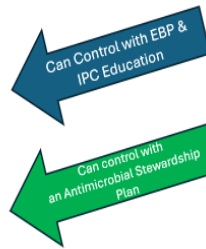


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MDROs transmission is **common** in LTC facilities, contributing to **substantial** resident morbidity and mortality and increased healthcare costs.

WHY?

- Global travel and migration
- Poor infection control practices
 - **contaminated hands and clothing**
- Antibiotic overuse and misuse



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Enhanced Barrier Precautions (EBP) Set Up

- Post clear **signage on the door or wall outside of the resident room** indicating the type of Precautions and required PPE (e.g., gown and gloves), clearly indicate the high-contact resident care activities that require the use of gown and gloves
- **Gowns and gloves available immediately outside of the resident room**
- Ensure **access to alcohol-based hand rub** in every resident room (ideally both inside and outside of the room)
- Position a **trash can inside the resident room and near the exit for discarding PPE after removal**, prior to exit of the room or before providing care for another resident in the same room
- Incorporate periodic **monitoring and assessment of adherence** to recommended infection prevention practices, such as hand hygiene and PPE use, to determine the need for additional training and education
- **Provide education to residents and visitors**



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What are **High-Contact Care Activities** that Require EBP?

- Dressing
- Bathing/showering
- Transferring (in **resident room**)
- Providing hygiene (bundled care: brushing teeth, combing hair, shaving)
- Changing linens
- Changing briefs or assisting with toileting
- Device care or use: central line, urinary catheter, feeding tube, tracheostomy/ventilator
- Wound care: any skin opening requiring a dressing



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EBP During High-Contact Care Activities **Outside of Resident Room**

- Bathing in a shared/common shower room.



- When working with residents in the therapy gym, specifically when anticipating close physical contact while assisting with transfers and mobility.

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Local Health Department

Reach out to your LHD – find out what services they can provide to you.

LHD – provide resources and support for infection prevention and outbreak response.

Vaccine Clinics, ICAR Assessments, Respirator fit testing & training, and IPC support.

Know who your HAI Liaison is for your LHD district

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References

OSHA Respiratory Protection Standard § 1910.134

• <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134>

OSHA's Appendix A to § 1910.134 – Fit Testing Procedures (Mandatory)

• <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.134AppA>

National Institute for Occupational Safety and Health (NIOSH) – Hospital Respiratory Protection Toolkit. (Revised April 2022). Information can be useful for other settings in developing and implementing effective respiratory protection programs.

• <https://www.cdc.gov/niosh/docs/2015-117/>

CDC – NIOSH User Seal Check FAQs

• <https://www.cdc.gov/niosh/docs/2018-130/pdfs/2018-130.pdf>

OSHA Respiratory Protection Training Videos

• <https://www.osha.gov/respiratory-protection/training>

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References

- ▶ [Airborne transmission of respiratory viruses \(science.org\)](#)
- ▶ Montoya A, Mody L. Common infections in nursing homes: a review of current issues and challenges. *Aging health*. 2011 Dec;7(6):889-899. doi: 10.2217/AHE.11.80. PMID: 23264804; PMCID: PMC3526889.
- ▶ NACCHO.org [NACCHO](#)
- ▶ [Annual Report on Local Public Health in Nebraska : Nebraska Health Care Funding Act \(LB692\), 2018](#)
- ▶ [Find Your Local Health Department : About Local Health Departments : Nebraska Association of Local Health Directors \(nalhd.org\)](#)
- ▶ *American Journal of Infection Control* (ISSN: 0196-6553) February 2025 Vol. 53 No. 2



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Questions?

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