

# OUTBREAK MANAGEMENT AND PREVENTION

LOCAL HEALTH DEPARTMENT

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## **Objectives**

Why is it important to manage an outbreak?

Infection Preventionist
- vital role in
prevention and control
of infections

Benefits of building a partnership with your local health department

Vaccine Services
ICAR Assessments
Respirator Fit Testing

Infection Prevention and Control support

Questions



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# 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

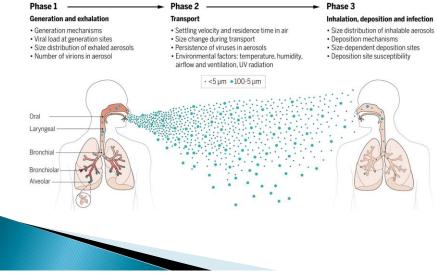
#### Risk factors that predispose older adults to infections:

- 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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"It is important to implement controls that protect against exposure of infectious virus laden aerosols produced when infected individuals without any symptoms speak, sing, or simply breathe. Because these individuals do not know they are infected, they generally continue to be involved in social activities, leading to airborne transmission" (pg. 8 wang et al., Science 373, eabd9149 (2021)





#### **Infection Preventionist**

# a vital role in prevention and control of Infections



## 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

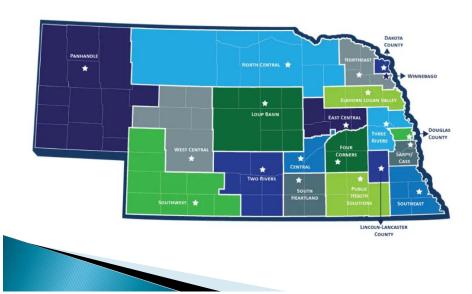


## Benefits of Building a Partnership With Your Local Health Department

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



#### Nebraska Local health Departments



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

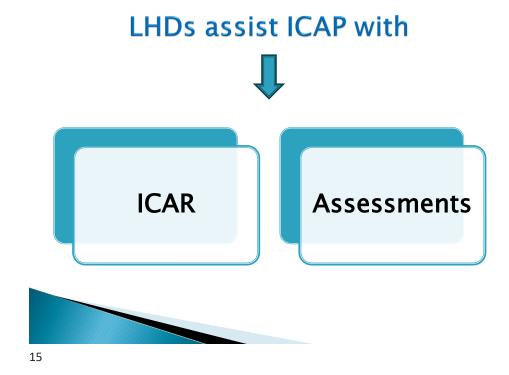
#### LHD Assist Facilities:

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

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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



### **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).

#### **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

#### 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** 

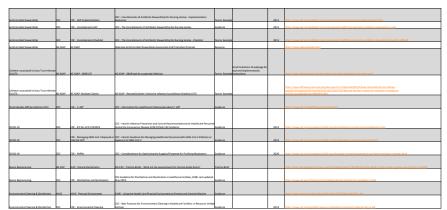
**Defined Abbreviations** 

#### ICAR Excel Sheet Provided to Facility

Infection Control Program and		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/HICPAC), 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		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. Th skin testing or IGRA lab not performed upon hire.
Healthcare Personnel and Resident Safety		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 requesed upon hire, for all CDC recommended vaccines for HCP.

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#### Resources







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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.



# 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
- Employers must provide annual training on the use and limitations of respirators and provide annual fit testing
- Employers must maintain records of respirator training, medical clearance and fit testing
- Maintain and evaluate the RPP on a regular basis (yearly)

#### **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



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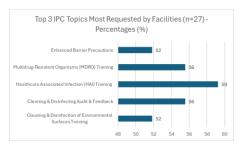
#### **HAI Liaison Directory**





CDHD conducted an IPC survey with 27 healthcare facilities in the Central District to find out what training/resources IPs needed.

Healthcare associated infections (HAI) and multidrug-resistant organisms (MDRO) trainings, environmental cleaning and disinfecting, and enhanced barrier precautions (EBP), followed by injection safety.





NEBRASKA Good Life. Great Mission.	AP	fulti-Drug Resistant Organism (MDRO) Cheat Sheet for Infection Preventionists					
Type of MDRO	Defintion		TRP	Duration of TBP		NPHL Specimen Submission**	
		NSM, NoV., VIV., NAP.  NSM. Nov. Dall Metallo-j-Lacamase  OLA-48 lair Coelisies  SFC. Selekelin prosumonies carlaigenemase  VIV. Vareans National Metallo-ji-Lactamase  MP: Irriparemase  MP: Irriparemase	Contact Procustors  Loop sens Cuer Socialis (LTCF)  Channes bering pressus tons (ESP) recommended  for catonized resident(q)**  In general, CDC does not recommend screening includual with a large of CPO confirmation or infection as assess for decidentation to inform discontinuation of well-only infection control measures.	Continue isolation indefinitely, in general, screening individuals with a history of colorisation or infection with a tegreted Mbbb with the aim of discontinuing transmission-based preceditions is not recommended.	Tier 2	Solent al Indelen di in-house or inferenza labor alory ori frende calapsemase profesiori (Entredactaries (CPI) or Punzilamonte oringinesa (CIPA) or Activitabacter (examine) (CIRA	
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	several types of antification.	least one drug in at least three of the following seven categories:  2. Extended spectrum caphalosporis (celepime, celtasidime)  2. Fluoroquinolones (ciprofloxacin, levofloxacin)	Centact Procustorsi Loop sem Cure Facilities (LTCF): Enhanced barrier presistors (EBP) incommended for calonized resident)()**	Per facility policy and risk assessment  Minimal consideration: duration of haspinalization where this organism was identified.	Tier 3	Adherbdacter doumonit:  Dospanem 1 4 µg/ml or Insigenem 3 4 µg/ml or Mereperem 2 4 µg/ml or ron-isocapebble by disc diffusion method and resistant to both celepime and celturidime at MC x 15 µg/ml	
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	sizeracitie tazobactam, ceftazidime, cefepim	se, activenans, merepenens, imigenens clastatin, diprofloracin, and levefloracin.		4			
	Resistant to all antibintic classes. Isolates tested against all agents in every cate		Centact Precastions  Long-term Core Facilities (LTCF): Enhanced barrier precastions (EBP) recommended for calonized resident)()**		Tier 2		



#### 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

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

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.

OSHA Respiratory Protection Training Videos

• https://www.cdc.gov/niosh/docs/2018–130/pdfs/2018–130.pdf

• https://www.cdc.gov/niosh/docs/2018–130/pdfs/2018–130.pdf

#### 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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