



# **Local Leadership in Infection Prevention: Building a Regional HAI Response Team for a Safer Future**

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Facilities Advisory Board (FAB)  
September 2<sup>nd</sup>, 2025

## **Southern Nevada Health District**

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# Tracking the Surge: *C. auris* Cases in Clark County (2021–2025)

## Clark County *C. auris* Case Summary (2021–2025)

### Total cases (2021–2023):

- **1,129 cases** reported from **34 healthcare facilities** in Clark County
  - **Clinical infections:** 79
  - **Colonization cases:** 951

### Recent monthly data (June 2025):

- **189 cases** reported in Clark County hospitals
  - **47 clinical infections**
  - **138 colonization cases**

### Cumulative statewide cases (Aug 2021–Aug 2025):

- **6,539 total cases**
  - **2,122 clinical**
  - **4,417 colonization**
- Clark County accounts for the **vast majority** of these cases

# Diagnose, Investigate, Intervene: The Power of a Local Coordinated Response

A regional hospital experiences an outbreak of *Candida auris*, a multidrug-resistant fungus. The local HAI response team quickly deploys laboratory staff and epidemiologists to identify cases, conduct colonization screening, and implement infection control measures. Environmental health staff assess cleaning protocols and facility layout. The outbreak is contained within two weeks, preventing spread to other facilities.

Diagnose,  
Investigate,  
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Response



**Rapid Pathogen Identification Due to Strong Local Collaborative**

The HAI team quickly identified *Candida auris* through diagnostic testing, enabling timely response.

**Epidemiologic Investigation (ICAR – Infection Control Assessment and Response)**

Investigations traced pathogen spread, helping to understand and control the outbreak.

**Targeted Environmental Interventions (ICAR – Infection Control Assessment and Response)**

Environmental assessments revealed infection control lapses, addressed by targeted interventions.

**Coordinated Multidisciplinary Response (Healthcare Facility Staff & SNHD Laboratory-Epidemiology-Environmental)**

A coordinated team effort prevented further transmission and protected vulnerable patients.

# HEALTHCARE- ASSOCIATED INFECTIONS

# Unseen but Lethal: The Impact of HAIs on U.S. Healthcare

## Impact

- HAIs are a serious threat to healthcare safety due to increases in patient morbidity & prolonged hospital stays
- HAIs result in increased significant healthcare costs
- HAIs are among the leading causes of preventable death in the United States, affecting 1 in 17 hospitalized patients, accounting for an estimated 1.7 million infections and an associated 98,000 deaths.

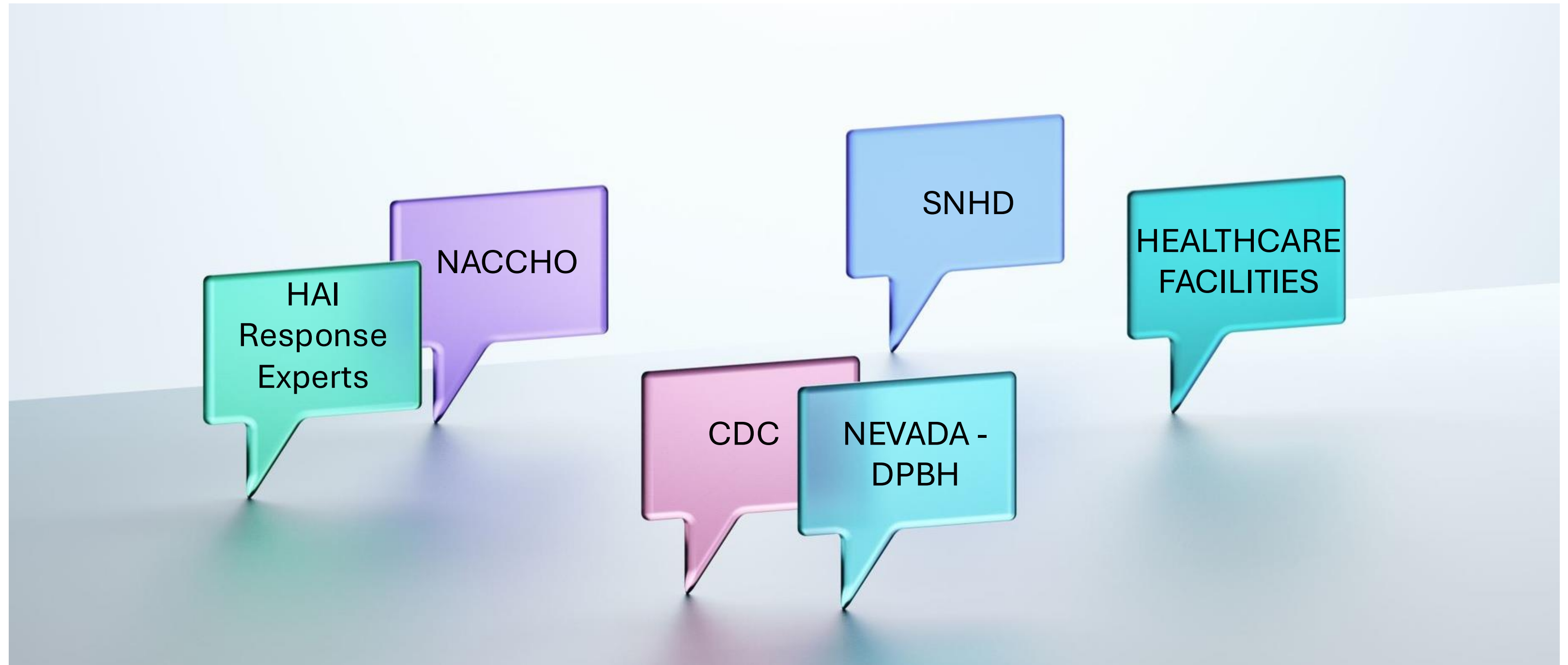
## Common HAIs

- Bloodstream infections, urinary tract infections, surgical site infections, and pneumonia.  
Multidrug-Resistant Organisms
- Emerging multidrug-resistant organisms like carbapenem-resistant bacteria and *Candida auris* complicate infection management.

# CDC's Vision for Local Healthcare- Associated Infections/ Antibiotic Resistance Capacity

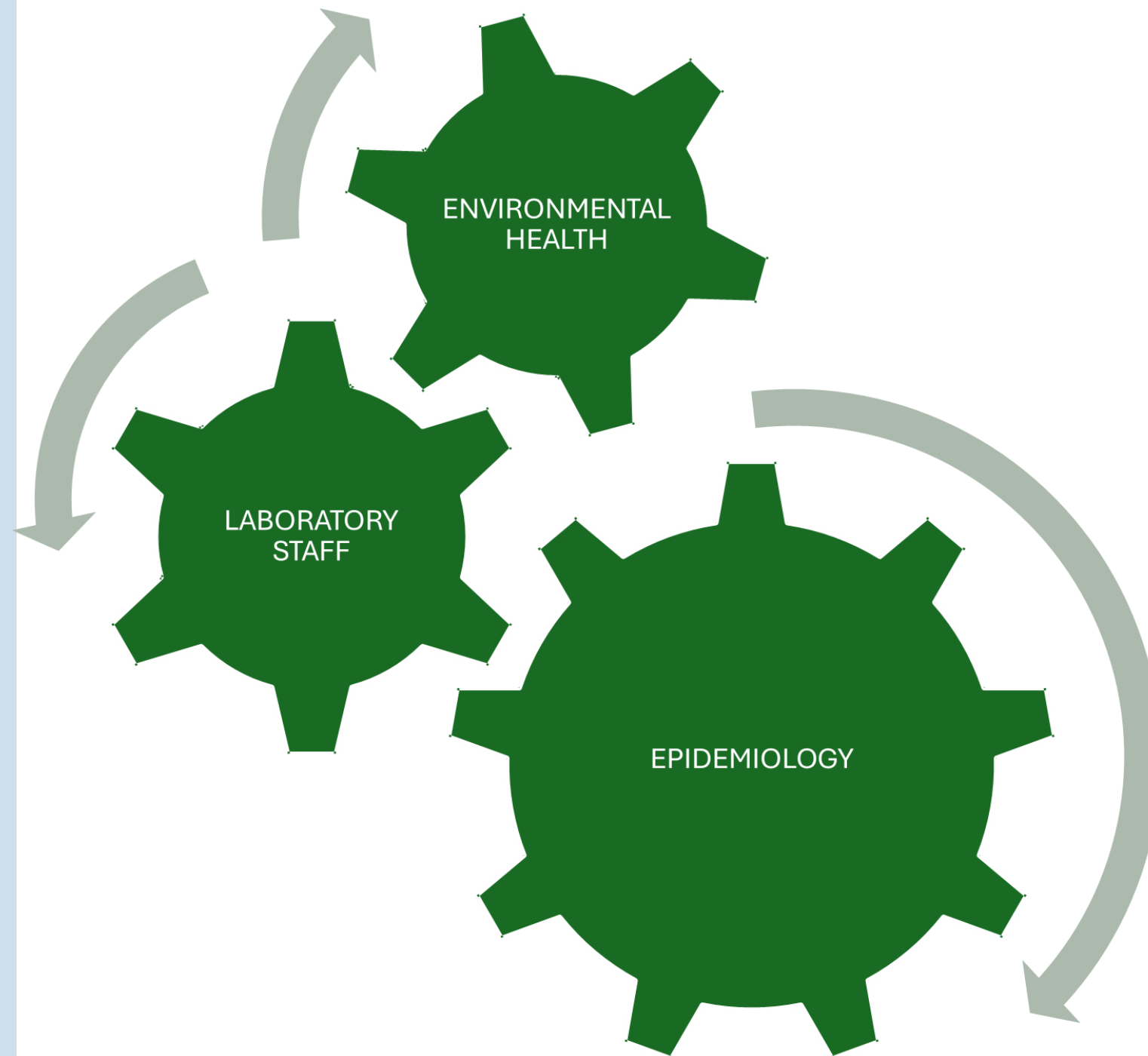


# STRATEGIC CONVERSATIONS FOR REGIONAL HAI RESPONSE TEAM



# **ROLE OF PUBLIC HEALTH HAI TEAM**

# HAI TEAM RESPONSE



## **Real-time Surveillance and Outbreak Detection**

HAI teams perform real-time monitoring to detect outbreaks and assess environmental risks promptly.

## **Laboratory Diagnostics and Resistance Profiling**

These teams conduct laboratory tests and resistance profiling to inform targeted infection control strategies.

## **Coordination and Infection Control Implementation**

HAI teams collaborate with hospitals and emergency services to implement effective infection control measures.

## **Data Analysis and Facility Evaluations**

Expert data analysis and facility assessments support continuous improvement in infection prevention programs.

# STRATEGIC IMPORTANCE TO HEALTHCARE FACILITIES



## **Enhancing Patient Safety**

HAI teams improve patient safety by proactively managing infection risks throughout hospital operations.

## **Reducing Operational Costs**

HAI teams help reduce healthcare facility costs by avoiding penalties and minimizing infection-related expenses.

## **Supporting Regulatory Compliance**

These teams ensure healthcare facilities meet accreditation standards and comply with healthcare regulations effectively.

## **Building Public Trust**

HAI teams enhance healthcare facility reputation by demonstrating commitment to infection control and community health.

# SNHD REGIONAL HAI TEAM LEADERSHIP

- **Anil T. Mangla, MS, PhD, MPH, FRIPH**, - Director of Disease Surveillance and Control (**Epidemiology**)
- **Horng-Yuan Kan, PhD** - Director of Southern Nevada Public Health Laboratory (**Laboratory**)
- **Xavier F. Gonzales, PhD, MSPH** - Director of Community Health (**Laboratory**)
- **Christopher Saxton, MPH-EH, REHS** - Director of Environmental Health (**Environmental Health**)
- **Cassius Lockett, PhD** – District Health Officer (**Oversight**)



# Epidemiology

# Epidemiology Component

## 1. Surveillance & Data Analysis

- Establish and maintain surveillance systems for HAIs (e.g., CLABSI, CAUTI, VAE, SSI, C. difficile, MRSA, Candida auris).
- Monitor infection trends and identify unusual patterns or clusters.
- Analyze risk factors, incidence rates, and outcomes to guide prevention strategies.

## 2. Outbreak Detection & Response

- Rapidly investigate suspected HAI outbreaks.
- Conduct case definitions, case finding, and contact tracing within healthcare facilities.
- Use epidemiological methods to identify sources and modes of transmission.

## 3. Collaboration with Infection Prevention & Control (IPC)

- Work closely with hospital infection preventionists to assess infection control practices.
- Provide epidemiological input for IPC protocols (e.g., isolation, cohorting, environmental controls).
- Coordinate multi-disciplinary outbreak response teams.

# Epidemiology Component

## 4. Data Integration & Reporting

- Submit data to NHSN (National Healthcare Safety Network) and meet state/federal reporting requirements.
- Share findings with facility leadership, public health authorities, and regulatory bodies.
- Translate surveillance data into actionable reports and dashboards for stakeholders.

## 5. Applied Research & Evaluation

- Assess effectiveness of interventions (bundles, antibiotic stewardship, environmental cleaning, etc.).
- Conduct epidemiologic studies to understand emerging threats (e.g., antimicrobial resistance, fungal HAIs).
- Evaluate and refine surveillance case definitions, diagnostic algorithms, and analytic methods.

## 6. Training & Capacity Building

- Provide education to clinicians, hospital staff, and public health teams on HAI prevention and reporting.
- Support hospitals in building capacity for infection surveillance and outbreak response.

## 7. Policy Development & Guidance

- Develop guidelines for detection, prevention, and management of HAIs.
- Provide technical input to inform state/local regulations and facility infection prevention policies.

# Laboratory

# Healthcare Facilities + PHL: A Collaborative Framework

*Healthcare Facilities provide the frontline samples. PHL provides the community-wide view.*

Hospital	Public Health Laboratory (PHL)	Share Benefit
Diagnose & treat patients	Confirm usual resistance, advanced testing (PCR, WGS)	Better patient safety, reduced HAIs
Detect and send suspected AR/HAI isolates	Provide surveillance data & outbreak alerts	Shared knowledge → stronger infection control
Report notifiable conditions	County, statewide, & CDC reporting	Protect hospital reputation & meet compliance

# Short-Term & Long-Term Impact on Our County

## Short-Term Benefits:

- Faster management of resistant outbreaks (e.g., CRE, C. auris)
- Direct support for hospital infection prevention teams.
- Assurance that patients receive effective treatment.
- Shared countywide data → hospitals benchmark their infection rates against peers.

## Long-Term Benefits:

- Stronger community health through surveillance data.
- Reduced healthcare costs by preventing large outbreaks.
- Positioning our county as a leader in HAI & AR prevention.
- Sustainable preparedness for future emerging pathogens

*By collaboration and ensuring isolates directed to SNPHL, your hospitals help build a safer, healthier community for all patients*

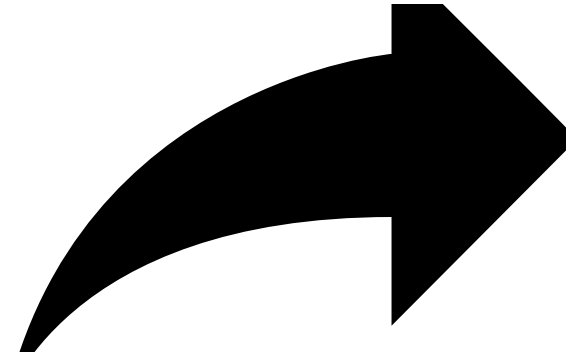
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# Environmental Health

# Environmental Health Component

Goals	Approach
Build meaningful, sustainable partnerships	Establish reliable points of contact and maintain communication and transparency
Identify potential causes of outbreak or high priority illness	Review facility logs and records and conduct on-site infection control assessments
Identify potential contributing factors and environmental antecedents	Summarize information obtained to identify underlying issues that may have allowed for illness transmission
Recommend appropriate control measures	Utilize CDC guidelines and best practices and work with healthcare facility management to implement feasible and successful corrective actions

# CDC ICAR



- [Observation Form – Hand Hygiene](#) [PDF](#)
- [Observation Form – Transmission-Based Precautions \(TBP\)](#) [PDF](#)
- [Observation Form – Environmental Services \(EVS\)](#) [PDF](#)
- [Observation Form – High-level Disinfection and Sterilization](#) [PDF](#)
- [Observation Form – Injection Safety](#) [PDF](#)
- [Observation Form – Point of Care \(POC\) Blood Testing](#) [PDF](#)
- [Observation Form – Wound Care](#) [PDF](#)
- [Observation Form – Healthcare Laundry](#) [PDF](#)
- [Observation Form – Water Exposure](#) [PDF](#)

## Hand Hygiene Environment of Care Observations

**Note: The following elements evaluating hand hygiene stations show  
Hand hygiene observations are also incorporated**

Elements to be assessed
1. Alcohol-based hand sanitizer (ABHS) used in the facility contains 60%-95% alcohol. <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> ABHS is not used by the facility
2. Alcohol-impregnated wipes are stored in a manner that prevents evaporation. <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Alcohol-impregnated wipes are not used by the facility
3. How is ABHS dispensed? <i>(select all that apply)</i> <input type="checkbox"/> Wall-mounted dispensers <input type="checkbox"/> Free-standing dispensers <input type="checkbox"/> Individual pocket-sized containers <input type="checkbox"/> Other <i>(specify)</i> : <div></div>
4. Individual pocket-sized dispensers of ABHS remain in the control of HCP (i.e., patients/residents are unable to access these dispensers) <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Individual pocket-sized containers are not used by the facility

# RECOMMENDATIONS

# Strategic Actions for Hospital Leadership

## CURRENT

- SNPHL Ready to Receive and Process Certain Clinical Samples
- Set up meetings with appropriate healthcare facility staff to coordinate processes for Regional HAI

## FUTURE

### **Integrate with Public Health**

Formalizing integration with public health systems enhances coordination of HAI response efforts.

### **Expand Data Sharing and Training**

Joint data sharing and training initiatives improve surveillance and laboratory capacity.



QUESTIONS?



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