Assessment of Facility Water Management Program (WMP) Practices: Analysis of 2024 NHSN Annual Survey Data from Nebraska Healthcare Facilities.

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Background

- In 2017, the Centers for Medicare & Medicaid Service (CMS) required certified healthcare facilities to have water management policies and procedures.
- The National Healthcare Safety Network (NHSN) Annual Hospital Survey includes questions on water management programs (WMP) on both:
  - Patient Safety Component (PSC) Annual Hospital Survey.
  - Long-Term Care Facility (LTCF) Component Annual Facility surveys.
- This study describes WMP related policies and practices in Nebraska hospitals and LTCF.

Methods

- Eighteen common questions were identified among the 2024 surveys
- It included information regarding:
  - Existing WMPs
  - Risk assessments to identify Legionella and other opportunistic waterborne pathogens
  - WMP team composition
  - Monitoring practices
- Descriptive statistics were performed, and Pearson's chi-square test was used to identify differences across clinical settings, which included:
  - Acute care hospitals (ACH)
  - Critical access hospitals (CAH)
  - LTCF
- Statistical analysis was performed using R v4.5.1

Acknowledgments

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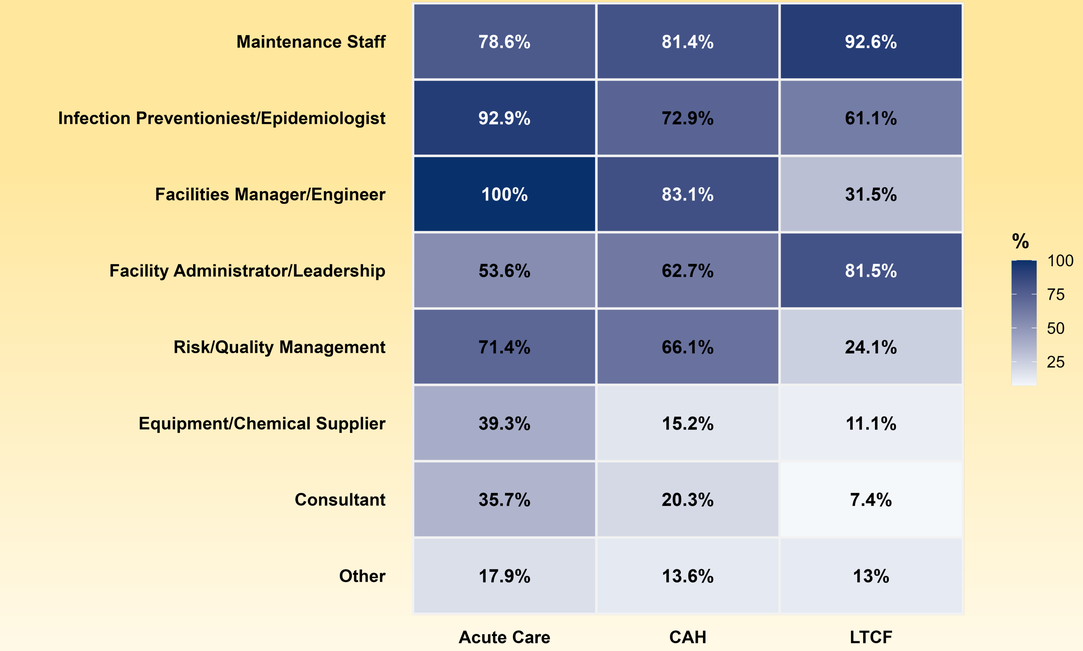
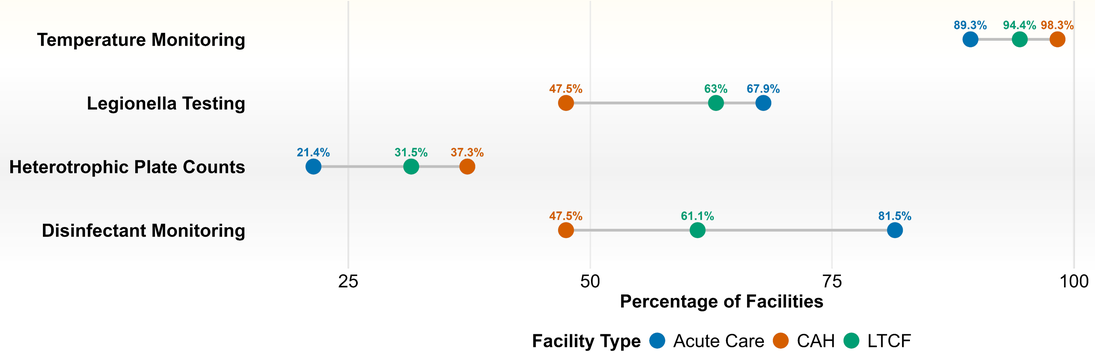
Water Management Team Composition

Percent of facilities reporting each role by facility type



Water Monitoring Practices

Percent of facilities routinely performing monitoring activities



Results

- A total of 141 facilities participated in the survey, 28 ACH, 59 CAH and 54 LTCF. All but one LTCF reported having a WMP in place.
- Facility risk assessment to identify Legionella and other opportunistic waterborne pathogens were completed in 87% of LTCF, and 100% of both ACHs and CAHs.
- Overall, 72% of facilities included an epidemiologist or infection preventionist, with LTCF showing the lowest participation. A breakdown of team participants according to clinical setting is shown on figure 1.
- Facilities reported monitoring temperature (95%), disinfectant levels (59%), Legionella (57%) and heterotrophic plate counts (32%). When comparing across clinical settings, monitoring of disinfectant levels differed significantly across ACH, CAH, and LTCF (78.6%, 47.5%, and 61.1%), respectively; p=0.02). Figure 2 shows monitoring practices by setting.

Conclusion

- Nebraska healthcare facilities demonstrated high adoption of water management programs in 2024, with most conducting risk assessments and engaging multidisciplinary teams.
- We identified variability in team composition and difference in disinfectant monitoring practice. Enhancing consistency and expanding surveillance activities across facility types could better protect patients, residents, and healthcare personnel from waterborne pathogen risks.

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