Current *Legionella* Prevention Activities and Trends among Tennessee Hospitals Reporting to the National Healthcare Safety Network, Tennessee 2018-2019

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References

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Background

Each year, the CDC conducts nationwide surveys of healthcare facilities though the National Healthcare Safety Network (NHSN). These surveys aim to highlight any weaknesses in infection prevention plans and reduce the number of healthcare-associated infections. This poster examines the state of *Legionella* prevention in Tennessee hospitals and presents a few general trends between 2018 and 2019.

Because healthcare facilities tend to have both a high risk for *Legionella* and several vulnerable occupants, the Centers for Medicare and Medicaid Services (CMS) requires each facility to have a number measures in place to stop *Legionella* outbreaks before they occur.

Methods

Data were collected from healthcare facilities across Tennessee through electronic surveys as part of the NHSN's annual assessments. The data were shared through a partnership between the TDH Healthcare Associated Infections team and the TDH Waterborne and Zoonotic Disease Team[2].

SAS Enterprise 7.1 and Microsoft Excel were used for all data storage, cleaning, and analysis. Analytical methods included chi-square tests, t-tests, Fisher's exact tests, and descriptive analysis.

Summary

With two years of *Legionella* data collection by the NHSN, TDH epidemiologists can begin to examine trends in *Legionella* prevention.

Although long term data is not available, early upticks in CMS compliance have coincided with lower case numbers.

With more knowledge of prevention strategies, TDH can better identify the state's strengths and weaknesses in the fight against *Legionella*.

Conclusions

Most trends show encouraging results for containing the spread of *Legionella* in Tennessee hospitals. As a whole, Tennessee outperformed the national decline in cases. CMS compliance saw a large increase of 10.2% statewide, indicating that hospitals are taking their responsibility seriously.

For-profit and government owned hospitals were less likely to meet CMS requirements, so those hospitals could receive focused attention and training in order to get them up to standards.

With just two years of NHSN *Legionella* data to analyze, it is difficult to make strong predictions on the future of the disease in Tennessee, but the early results are promising.

Results

Demographics

CMS Compliance

86% of facilities that completed the *Legionella* questions on the survey met CMS requirements (n=88/102).

For-profit and government-owned hospitals were more likely than nonprofit hospitals to not meet CMS requirements (p-value=0.02.).

Neither size nor type of hospital was found to be associated with being CMS compliant

Legionella Prevention Activities

93% (n=93/100) of facilities reported having a water management program

91% (n=93/102) have a dedicated water management team, and these teams had a median of 5 people (min 1, max 8).

92% (n=92/101) of facilities have conducted a risk assessment on their property.

Legionella Trends in Tennessee

	2018	2019	Percent Change
Tennessee Legionellosis Cases[2]	171	149	-12.9%
Nationwide Legionellosis Cases[2]	9,933	8,890	-10.5%
CMS Compliance[1]	78%	86%	10.2%
Performed a facility assessment in the last year[1]	70%	68.5	-2.1%
Have a water management program[1]	90%	93%	3.3%