



## KEY POINT SUMMARY

### OBJECTIVES

This study assessed the effect of medical staff role models and the number of healthcare worker sinks on hand-hygiene compliance before and after construction of a new hospital designed for increased access to handwashing sinks.

### DESIGN IMPLICATIONS

To substantially improve hand-hygiene compliance, factors beyond handwashing sinks must be considered, including improving healthcare workers' skin conditions and using alcohol-based alternatives, focusing on educational interventions, and providing administrative support.

## Influence of Role Models and Hospital Design on the Hand Hygiene of Health-Care Workers

Lankford, M. G., Zembower, T. R., Trick, W. E., Hacek, D. M., Noskin, G. A., Peterson, L. R.

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### Key Concepts/Context

One of the key components for limiting spread of healthcare-associated infectious disease is the practice of adequate infection control. A cornerstone of infection control is ensuring that healthcare workers wash their hands at appropriate times. Some reports suggest that role models, group behavior, and the level of managerial support influence reported levels of compliance. However, few studies have prospectively evaluated the association between hand-hygiene compliance and building design.

### Methods

Healthcare worker hand hygiene was observed in four nursing units that provided similar patient care in both the old and new hospitals: medical and surgical intensive care, hematology/oncology, and solid organ transplant units.

### Findings

Despite construction of a new hospital with an increased number of sinks, this study found that hand-hygiene compliance in the new facility decreased substantially. Healthcare workers were significantly less likely to wash their hands if they were in a room with a peer or higher ranking person who did not perform hand hygiene. Hand-hygiene compliance was better after patient contact, when performing an invasive procedure, and after removing gloves.



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## Limitations

Handwashing observations were limited to the day shift, therefore, compliance outcomes are not available for other shifts. Duration and efficacy of hand hygiene were not evaluated during this study. Generalizability of study outcomes is limited by sample size.