Infection Prevention and Control in U.S. Hospitals

Thank you to the 1,092 hospitals that participated in this study. Thanks to your contributions, this is the largest comprehensive survey of infection control departments in the United States!

This report provides a cross-sectional snapshot of the structure and resources of infection control departments around the country, the implementation of processes to prevent device associated infections in intensive care units (ICUs), as well as the effects of infection control policies on infection control departments.

For more information about this important study, please contact the Principal Investigator, Patricia Stone, (ps2024@columbia.edu) or the Project Director, Carolyn Herzig, (cth2115@columbia.edu).

1,092 infection control departments contributed to this study.

The average bed size of participating hospitals was 238.

Two thirds of participating hospitals took part in the IHI Five Million Lives Campaign or the CUSP Initiative.

Characteristics of Infection Control Departments and Staff

- Over half of participating hospitals had a MD epidemiologist, of which only 29% worked full-time in infection control.
- A majority of infection control departments (72%) reported vacant positions.
- 83% of respondents reported the use of hospitalists in their hospital and 50% reported the use of intensivists.

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Infection Preventionists (IPs) spent 47% of their time on surveillance.

- IPs spent the same amount of time on daily isolation issues as they did on education (12%).
- Outbreaks accounted for the least amount of IP time use (6%).
- Other activities, such as policy development and meetings, employee/occupational health, unit rounds/consultations and research accounted for 24% of IP time use.

## Mandatory Reporting and its Effect on the Infection Preventionist

- A majority of survey respondents reported that mandatory reporting has resulted in increased visibility of the infection control department and increased influence of the infection control department on decision making.

- Mandatory reporting was reported to have resulted in less time for routine infection control activities that are not mandatory reporting-related.

### IP Perception: How Mandatory Reporting Impacts the Infection Control Department

- **Resources to assist infection control department**
  - Less
  - Same
  - More

- **Time for routine infection control activities besides mandatory reporting**
  - Less
  - Same
  - More

- **Influence of the IP department on hospital decision making**
  - Less
  - Same
  - More

- **Visibility of the Infection Control Department**
  - Less
  - Same
  - More

**IPs spend, on average, 17 hours per week fulfilling mandatory reporting requirements**
Despite increasing use over time, only 35% of hospitals use ESS for tracking healthcare associated infections and 86% of these systems are commercially available.

The vast majority of hospitals use all of the following ESS features: data mining, automatic alerts, built-in templates to create reports and data summaries, the integration of infection data with reporting definitions, and the sharing of reports with key committees and hospital administration.

Satisfaction with ESS was high. Staff felt ESS helped with data entry, report production, the review of patient data, and improved the efficiency and communication of infection control staff.
Preventing Device Associated Infections Using Bundles

- Implementation at the bedside for all device associated infection prevention processes remains problematic.
- 91% of hospitals have a checklist to monitor central line bundle compliance, whereas only 69% of hospitals have a checklist to monitor ventilator bundle compliance.

Less than half of respondents using the central line bundle checklist and ventilator bundle checklist report correct implementation $\geq 95\%$ of the time (47.9 and 46.8%, respectively).

About the Study

The study aims to 1-use a qualitative approach to describe the phenomena of infection prevention, surveillance and control in hospitals; 2-assess the impact of intensity of infection control processes on device associated and organism specific HAI rates in ICUs across the U.S; and 3-determine the impact of state regulated mandatory reporting on infection control processes and HAI rates.

Data collection consisted of two phases. Phase I consisted of qualitative in-depth interviews in twelve hospitals that participated in the PNICE study. Interviews were conducted with multiple personnel including infection preventionists, hospital epidemiologists, hospital administrators, nurses and ancillary service personnel. Phase II involved a web-based survey of eligible NHSN hospitals and a request to join the PNICER NHSN Group.

This study has implications for IP roles, organization, and infection prevention activities. We hope to provide information that can improve use of evidence-based policies for the prevention of HAIs and IP efficiency. Data analysis is ongoing.

For more information please contact
Principal Investigator Patricia Stone (ps2024@columbia.edu) or Project Director Carolyn Herzig (cth2115@columbia.edu)