

# Public Reporting of Hospital-Acquired Infections

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Since 1998, the Rhode Island Department of Health has worked in partnership with local healthcare providers and stakeholders to implement a legislatively-mandated healthcare quality reporting program.<sup>1</sup> The program aims to: (1) provide comparative ratings for healthcare consumers choosing amongst local healthcare facilities, such as home health agencies, hospitals, and nursing homes, and (2) facilitate inter-provider benchmarking to help mobilize quality improvement in the Rhode Island market. This article describes the recent expansion of public reporting in Rhode Island to include facility-level reports of hospital-acquired infections.

## STATE AND FEDERAL EFFORTS The Hospital Infection Disclosure Act

In 2008, the Hospital Infection Disclosure Act expanded Rhode Island's quality reporting legislation to include hospital-acquired infections,<sup>2</sup> which affect 5-10% of hospital patients and cause approximately 100,000 deaths each year.<sup>3</sup> Some estimates place the per-infection cost at \$20,000-\$25,000, resulting in added costs of more than \$33 billion to the healthcare system as a whole.<sup>4</sup>

However, as discussed in Mermel's article,<sup>5</sup> hospital-acquired infections are considered largely preventable with the delivery of high-quality care and implementation of effective, consistent infection control practices, such as hand hygiene.<sup>6</sup> The legislation was introduced on behalf of a constituent whose spouse died as a result of a hospital infection; the law requires the Department of Health to report hospital-acquired infections for Rhode Island's 11 acute care hospitals at least annually.

Following enactment of the legislation in October 2008, the Department of Health convened a stakeholder group (the composition outlined in the legislation), including consumers, employers, and professionals (e.g., infection control preventionists), as well as data experts, such as epidemiologists and researchers. This broad stakeholder involvement is consistent with the Department's consensus-based approach to public reporting and a key element of the program's structure. The stakeholder group leverages diverse expertise, skill sets, and viewpoints in order to obtain buy-in for proposed topics and associated measures, vet reporting formats, and disseminate public reports.

## Department of Health and Human Services Priority Topics

While Rhode Island was enacting the Hospital Infection Disclosure Act, the Federal government was beginning a coordinated effort to address the prevention of hospital-acquired infections. First, the US General Accounting Office (GAO) cited the importance of national leadership to prioritize and implement hospital-acquired infection prevention tactics,<sup>7</sup> which spurred the US Department of Health and Human Services' (HHS's) 2009 Action Plan.<sup>6</sup> The HHS Action Plan made reducing preventable HAIs a national priority and required the integration of efforts to address this priority across all HHS agencies, including the Agency for Healthcare Research and Quality, the Centers for Disease Control and Prevention (CDC), and the Centers for Medicare & Medicaid Services (CMS). Importantly, the Action Plan emphasized public reporting "to build on the principles of transparency and consumer choice to create incentives and motivate healthcare organizations and providers to provide better, and more efficient care."<sup>6</sup>

In late 2009, the CDC awarded the Rhode Island Department of Health (among other health departments across the country) a 27-month American Recovery and

**Table 1: Rhode Island Hospital-Acquired Infection Topics (to date)**

Tier	Priority Topic / Measure(s)	Date Released	Data Source
1.	Surgical care <ul style="list-style-type: none"> <li>• % of surgery patients given antibiotics within one hour prior to surgery</li> <li>• % of surgery patients given the right kind of antibiotics before surgery</li> <li>• % of surgery patients who stop receiving antibiotics within 24 hours of surgery</li> </ul>	Jun 2009	Quarterly Medicare Hospital Compare data
2.	Intensive Care Unit (ICU) care <ul style="list-style-type: none"> <li>• Central line-associated bloodstream infections</li> </ul>	Jun 2009	Quarterly ICU data
3.	Infection control <ul style="list-style-type: none"> <li>• Hand hygiene &amp; glove use education (Y/N)</li> <li>• Hand hygiene measurement (Y/N)</li> <li>• Hand hygiene reporting (Y/N)</li> <li>• % of healthcare workers vaccinated for influenza</li> </ul>	Feb 2010 Feb 2010 Feb 2010 Sept 2010*	Annual primary data collection
4.	Infection rates <ul style="list-style-type: none"> <li>• <i>C. difficile</i> incidence</li> <li>• MRSA incidence</li> </ul>	Dec 2010*	Quarterly primary data collection

\*Anticipated release date

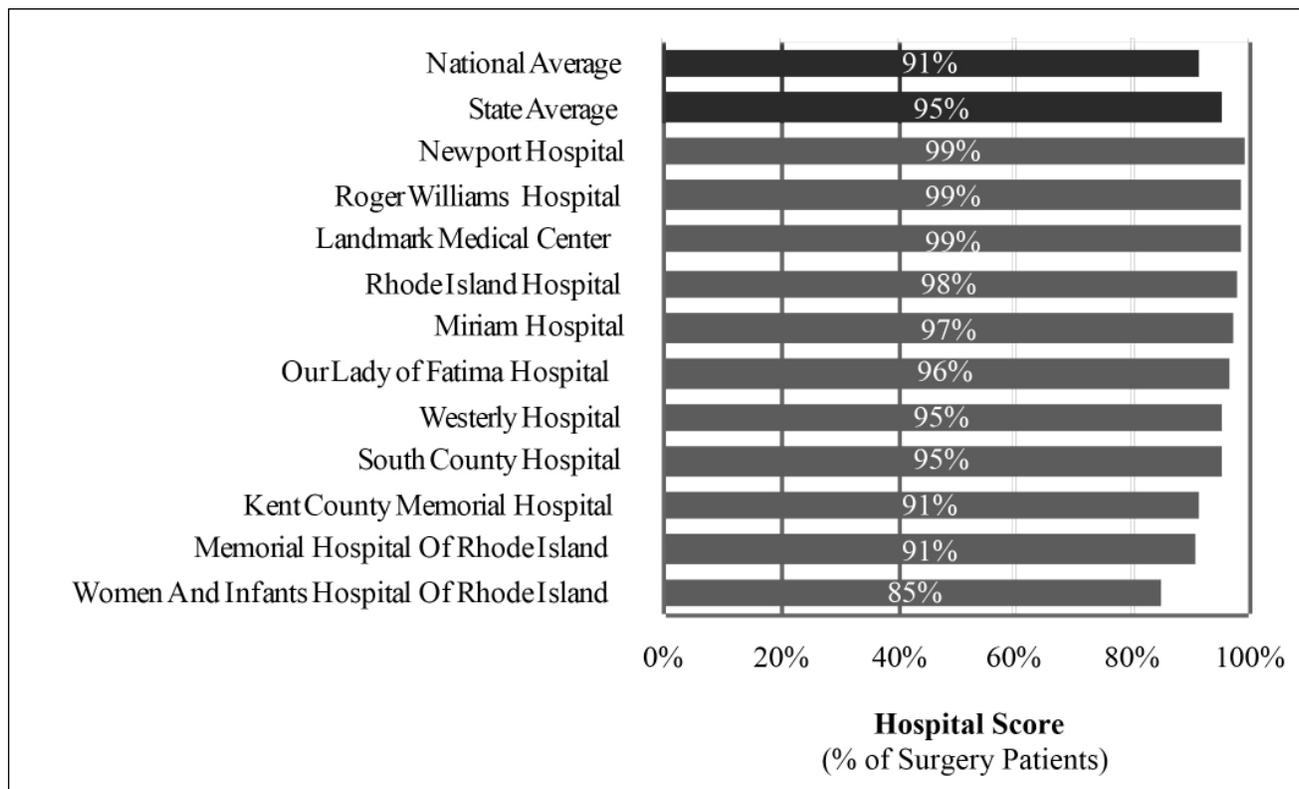


Figure 1: Percent of surgery patients who were given an antibiotic at the right time (within one hour before surgery) to help prevent infection

Reinvestment Act grant to name a coordinator, convene a multidisciplinary group, and develop a state plan for reporting hospital-acquired infections. The Department named the program’s project director as the state’s plan coordinator and used the existing stakeholder group, described above, to assess the state’s existing prevention efforts and select two HHS priority prevention topics for public reporting. In March 2010, the group selected *Clostridium difficile* (*C. difficile*) and Methicillin-resistant *Staphylococcus aureus* (MRSA), described in articles in this issue.<sup>8,9</sup>

CMS also signaled its intentions to cease reimbursing hospitals for certain infections and add to its existing hospital-acquired infection reporting, indicating that coordinated national efforts are gaining momentum and likely to increase the spotlight on hospital (and other healthcare-associated) infections in the coming months.

## HOSPITAL-ACQUIRED INFECTION REPORTING

### Prioritizing Reporting Topics

Recognizing both the public’s desire for timely information and the complexity of prioritizing HAI measures, the Department of Health’s stakeholder group implemented a tiered approach to report-

ing, with initial topics selected based on readily-available data and subsequent reports requiring additional data collection. (Table 1) This enabled Rhode Island to begin publicly reporting hospital-acquired infections in June 2009 — well in advance of the Hospital Infection Disclosure Act’s October 2010 deadline—and continually add additional topics.

As the Department of Health moves from Tier 1 (surgical care) to Tier 4 (infection rates), the data sources and measurement strategies grow increasingly complex, with Tier 4 measures requiring infection preventionists across all 11 acute care hospitals to agree to common definitions and sampling methods for the incidence measures, and then devote infection control staff resources to collecting and validating these data quarterly. As a result of the increasing complexity and staff burden, the stakeholder group’s measurement and policy input are particularly key for these subsequent measures.

### Creating Comparative Reports

For each of the topics in Table 1, the stakeholder group recommends a reporting format—bearing in mind that the quality reporting program’s primary goal of providing comparative ratings (rather

than raw scores) to healthcare consumers. Figure 1 provides an example of a report format. It includes the hospitals’ July 2008-June 2009 scores for one of the surgical care measures: the percent of surgery patients who were given an antibiotic at the right time to help prevent infection.

The Department of Health aims to package information in an easily understandable format for consumers. Where possible, the reports benchmark hospitals’ performance against national standards. For example, the central line-associated bloodstream infections reports compare hospitals’ incidence rates to national incidence rates (expected rates), calculating “standardized incidence ratios” that demonstrate how each hospital performs compared to what is expected. [See Health by Numbers, this issue] These ratios are then translated into diamond rankings (one, two, or three diamonds) to help consumers easily interpret the results as worse than, about the same as, or better than expected. These and other hospital-acquired infection reports are available on the Department’s website at [www.health.ri.gov/chic/performance](http://www.health.ri.gov/chic/performance).

## CONCLUSION

Rhode Island's hospital-acquired infection reporting is equipped with authority under the law and the strong commitment of the members of its stakeholder group, which includes hospitals and their infection preventionists. Several measures related to hospital-acquired infections are reported on the Department of Health's website and the Department will add additional measures, including the two incidence rates that reflect national HHS priority topics. Now that data are becoming widely available to healthcare consumers and to hospitals themselves, the challenge is shifting from devising effective methods to validating these data and conducting surveillance over time, as well as to implementing evi-

dence-based prevention strategies identified by HHS and discussed elsewhere in this issue.

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## Disclosure of Financial Interests

The authors and/or significant others have no financial interests to disclose.

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