

Public health law for the collection and reporting of health care–associated infections

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Background: State-based laws for reporting of health care-associated infections (HAI) have developed and changed dramatically in recent years, affecting the costs of reporting and impact on infection rates. It is necessary for practitioners of infection control to understand these changing legal frameworks and their application to practice.

Methods: Employing systematic state-based research, the researchers have documented legislation and administrative regulations for institution-specific HAI reporting, using this information to create a comprehensive resource on state-based laws for mandatory HAI reporting.

Results: As of August 27, 2007, 24 states have adopted laws requiring reporting of HAI rates, with an additional 7 states currently considering legislation that would require HAI reporting and 19 states employing detailed regulation in the absence of any current legislative authorization specific to HAI. This study documents (1) which states require reporting of HAI and, if so, whether this is done by legislation or administrative regulation; (2) whether the specific HAIs to be reported are identified in state law or codified generally as “diseases of public health importance,” with reporting specified by administrative regulation; and (3) what reporting policies and procedures are detailed in law.

Conclusion: Through analysis of the collected information, the researchers have examined the degree to which states have modernized their respective public health laws to approach mandatory reporting by way of general legislation regarding “matters of public health importance” and subsequent detailed administrative regulation to specify those matters. (*Am J Infect Control* 2008;36:537-51.)

Although health care-associated infection (HAI) rates have continued to rise over the last 30 years,¹ there is widespread agreement that most HAIs are avoidable^{2,3} and that HAI reporting mechanisms—as a system for public health surveillance—can lead to improved medical procedures, infection control best practices, and consequent prevention of HAIs.^{4,5} In this study, the researchers have reviewed relevant legal documents and analyzed current state public health legislation and regulation regarding mandatory collection and reporting of HAIs. Through analysis of the collected information, this study examines the degree to

which states have modernized their respective public health laws to approach mandatory reporting by way of general legislation regarding “matters of public health importance” and subsequent detailed administrative regulation to specify those matters. As a result, this study of both legislation and administrative regulations adds detail missing from existing databases of state reporting requirements while complementing these resources. This comprehensive examination of state-based regulation of HAI reporting will prove useful in evaluating the costs of mandatory reporting and the impact that the various types of regulations/legislation have on infection rates.

HAI, formerly known as “hospital-acquired infection” or “nosocomial infection,” occurs when a patient receiving treatment in a health care setting develops an infection secondary to the patient’s original condition. Because of their central status in providing medical care for infections, hospitals are often focal points of infectious disease epidemics. Within hospitals, these diseases can spread easily among immunocompromised patients,⁶ often as a result of the hospital’s failure to employ known means of HAI prevention, including washing hands fully, wearing proper infection-preventing attire, and prescribing antibiotics more selectively.⁷⁻⁹ There are an estimated 2 million

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HAIs annually in the United States, resulting in more than 90,000 deaths and leading HAI to become the fifth leading cause of death in acute care hospitals.¹⁰ Beyond these mortality and morbidity figures, HAI has become a major source of multiple drug-resistant organisms (more than 70% of the bacteria that cause HAI are resistant to at least 1 commonly used drug), most prominently methicillin-resistant *Staphylococcus aureus* (MRSA), contributing to the spread of disease beyond the walls of the hospital.^{10,11} As compared with other causes, HAI represents the most common complication in health care settings, affecting 5% to 10% of all hospitalized patients.¹² With increased days of hospitalization and direct health care costs, these HAIs add to American health care expenditure by at least \$4 billion annually.¹³⁻¹⁵

Although infection control professionals have long collected data on HAI on a voluntary and confidential basis (eg, the National Healthcare Safety Network (NHSN), formerly the National Nosocomial Infections Surveillance System¹⁶), hospitals have remained resistant to any mandatory or public reporting of HAI rates.¹⁷ Until recently, public health authorities only collected information on and investigated large outbreaks of infectious conditions in health facilities on a case-by-case basis. Facing civil tort liability for negligence in infection control policies, hospitals have opted to defend individual lawsuits, often successfully challenging the causation of HAIs (ie, whether the hospital “caused” the resulting harm) rather than change the practices of medical personnel.⁶ Despite the continued use of voluntary standards, infection control processes, infection rates, and multiple drug-resistant organism prevalence vary widely even in NHSN hospitals.¹⁸ Even federal guidelines to track processes associated with infections (as part of the hospital accreditation procedures of the Joint Commission of Accreditation of Healthcare Organizations) have done little to ameliorate HAI, lacking any specified “best practices” guidelines and compliance mechanisms necessary to mandate improvements.¹⁹

In spite of commitments from the national public health community to reduce the rate of HAI by 2010,²⁰ hospital regulation falls solely under the constitutional purview of state authorities, and it was not until 2004 that any state specifically *required* hospitals to report HAIs. This Pennsylvania law, mandating that hospitals report information solely on specific surgical site and device-related infections,²¹ has since been followed on and expanded by several other states. In 2005, Florida’s creation of “Florida Compare Care” made it the first state to require Web-based publication of hospital-specific infection rates.²² In the wake of these preliminary efforts to regulate HAI, advocacy organizations—arguing for publicly available data on the

basis of a “right to know”²³—have lobbied for mandatory public reporting of individual hospital infection rates in an effort to raise public awareness and motivate hospitals to make infection prevention a top priority.²⁴ Because of public attention to the magnitude of HAI, drug resistance problems in hospitals, and increasing demand for health care information, these organizations have recently been successful in pressing state and national initiatives that mandate hospital disclosure of performance and outcome data with regard to HAIs.²⁵

In building the evidence base to assist states in developing best practices for procedures to require public reporting of HAIs, the Centers for Disease Control and Prevention (CDC) instituted a Healthcare Infection Control Practices Advisory Committee to develop guidance documents that would specify principles for reporting systems.⁵ This was followed by a position paper from the Association for Professionals in Infection Control and Epidemiology, Inc. (APIC), which, based on the CDC guidance documents, enumerated 9 recommendations to guide the development of a reporting system based on mandatory, publicly available, and standardized (by organism and infection site) data for meaningful hospital comparison.²⁶ Extending this effort toward uniform legislative prescription for HAI surveillance, APIC, in collaboration with the Infectious Diseases Society of America and the Society for Healthcare Epidemiology of America, has developed standardized model state legislation for collecting and reporting HAI data that balances patients’ right to know and hospitals’ need for uniform reporting standards.²⁷ This *Model State Legislation for Collecting and Reporting Healthcare-Associated Infections* (or a similar effort through the *Consumers Union Model Hospital Infections Disclosure Act*) does not dictate specific legislative methods for collecting and reporting infection data; rather, it recommends drafting administrative regulations with reference to the panoply of voluntary reporting standards. In advocating the codification of these measurement systems, both APIC and Consumers Union have undertaken Web-based surveys of state HAI reporting laws, listing pending and passed legislation.^{23,28} These Web-based resources have proven instrumental in galvanizing advocacy, but they have not compared the content of each state’s HAI regulation, provided legislative language, or analyzed political processes for regulatory reform, comparisons necessary in developing legal and political best practices for HAI reporting.

METHODS

To develop a descriptive database of state laws for the prevention, surveillance, and control of HAI, the

Table 1. Summary of state HAI laws

Adopted legislation		Proposed legislation	Adopted regulations	
Alaska	Missouri	Alabama	Arizona	New Mexico
Arkansas	Nebraska	Massachusetts	Hawaii	North Dakota
California	Nevada	Michigan	Idaho	Ohio
Colorado	New Hampshire	New Jersey*	Indiana	Oklahoma
Connecticut	New York	North Carolina	Iowa	South Dakota
Delaware	Oregon	Pennsylvania*	Kansas	Utah
Florida	Rhode Island	Washington	Kentucky	West Virginia
Georgia	South Carolina		Louisiana	Wisconsin
Illinois	Tennessee		Maine	Wyoming
Maryland	Texas		Montana	
Minnesota	Vermont			
Mississippi	Virginia			

*Indicates states that have both existing and proposed legislation.

researchers first identified state HAI legislation and administrative regulations across the states. (In this context, “legislation” refers to law developed by the legislative branch and promulgated by executive signature, and “regulation” consists of legal requirements developed by executive agency pursuant to its enabling statutory authority.²⁹) Building on (1) data collected through a Joint Task Force of the Society for Healthcare Epidemiology of America and APIC³⁰ and (2) procedures developed by the Healthcare-Associated Infection Working Group’s Tool Kit for reporting HAI,³¹ the researchers systematically examined Web databases (eg, Lexis-Nexis, Westlaw, state legislative Web sites) and personal resources (in select cases in which Web-based information was not readily available) to develop a comprehensive summary of the substance and procedures of states’ mandatory HAI reporting.

Following this documentation, the researchers categorized the data collected for each state reporting process on the basis of (1) general authority requiring reporting of “diseases of public health importance” or specific, detailed legislative authority regarding the reporting of HAIs; (2) organisms and infection sites specifically enumerated (ie, case/intervention definition); (3) required hospital reporter; (4) detail in the report (aggregate for hospital vs individual case report); and (5) extent to which reports are released to the public with individual hospital identifiers. Based on previous studies of health regulations³² and experience in hospital-based infection control procedures,³³ these categories were deemed by the researchers as most likely to highlight the types of information of interest to those accessing the database, either to understand what is currently required in a given state or to consider possible regulatory reforms. This categorization was then analyzed from a comparative legal perspective to identify common themes among legislation and/or regulation governing the collection and reporting of HAI, to examine these similarities and differences to understand

political context, and, as a result, to uncover general empirical relationships among state legal efforts.

RESULTS

The state data have been organized in a Web-based table conducive to interstate regulatory comparison on the Web site of the Columbia Center for Health Policy (http://www.nursing.columbia.edu/chphsr/projects/law/public_health.html) and included as an Appendix to the present article. Based on an analysis of the categorizations of these laws and regulations, several patterns in hospital-based reporting become apparent.

HAI legislation has been proposed in almost all states, with several bills having now passed out of committee to receive the support of the legislature and become codified in state law. As of August 27, 2007, 24 states have adopted laws requiring the reporting of HAI rates, with an additional 7 states currently considering legislation that would require HAI reporting and 19 states employing detailed regulation in the absence of any legislative authorization specific to HAI. (Additionally, New York City has become the first city to disclose HAI rates, albeit in the absence of legislation, for all public hospitals.³⁴) Table 1 lists the states with adopted legislation, proposed legislation, and adopted regulations. It is important to note that some states categorized as “proposed legislation” already have adopted legislation or regulations on mandatory reporting (eg, Pennsylvania); however, because superseding legislation has been proposed, they were listed in this intermediate category.

States, based on experiences with voluntary reporting mechanisms since the 1970s, have moved in the last decade to institute systems of mandatory reporting through legislation. Every state that has passed legislation on HAI reporting has made such reporting mandatory by all regulated health care facilities. Beyond that commonality, states have instituted myriad legislative

and regulatory frameworks to assure and specify mandatory reporting of HAI.

Among the legislative schemes created through this process, the regulating agency responsible for HAI reporting is most often the state's department of health (or equivalent agency). There are exceptions to this whereby the state has created an independent agency to monitor HAIs. In Pennsylvania, for example, the Pennsylvania Health Care Cost Containment Council had been established in 1986 but was reauthorized in 2003 to include nosocomial infections in its existing review of hospital-based reporting.³⁵ In cases in which the state has declined to assume authority as the regulating agency (eg, Arizona, Colorado, Tennessee, and Virginia), laws have simply regulated the mandatory reporting of HAI by requiring participation in the CDC's voluntary National Healthcare Safety Network.

Within these reports to the regulating agency, regulation often mandates a delineation of reporting by organism and by infection site. Where the legislation is specific, legislators have specified these organisms to include pneumonia, MRSA, *Clostridium difficile*, and *Vancomycin-resistant enterococcus* (VRE) and infection sites to include surgical sites, blood stream, and the urinary tract. In most cases, however, legislation delegates authority to the regulating agency to determine (and revise when necessary) both the reportable organisms and infection sites through subsequent regulation.

States that have successfully mandated HAI reporting have, with certain exceptions (eg, Nebraska, Nevada), also required the release of that information on HAI rates to the public. Where they have done so, this publication of infection data has been done by way of both hospital-based data and aggregate state statistics. Although many states have accomplished this release of information through Internet posting, some state-regulating agencies are permitted to release the information only upon specific request (eg, Virginia).

DISCUSSION

Reviewing the legislative history of the laws specific to HAI reporting, bills have been more likely to become legislation where they give broad authority to the health department to design specific reporting regulations based on a general statutory language. This was the case among the 5 states that adopted enabling language from the Turning Point Model State Public Health Act,³⁶ which provides legislative language that the state should develop regulation on any "disease or condition of public importance." Among those states that have successfully legislated mandatory HAI reporting,

legislation was often preceded by the legislative empanelling of task forces or committees to study the issue. For example, Texas created an Advisory Panel on Health Care Associated Infections, which recommended a mandatory reporting system.³⁷ As in Texas, state-specific reports created through this expert collaboration^{38,39} would propose principles upon which mandatory reporting bills could then be drafted and legislation promulgated. Many states (eg, Alaska) that have not yet considered specific legislation have already convened an expert panel to study legislative proposals.

The most detailed legal requirements for the reporting of HAI have derived from a prolonged period of consideration of reform with the cooperation of hospital associations. Pennsylvania highlights this trend, employing a phased reporting requirement on hospitals, beginning in 2004 with specific surgical site infections and expanding reporting categories each year until hospitals were required to report all HAIs.⁴ Despite the promise of rapid change for this clear public health benefit, state hospital associations have often opposed these laws during their drafting and acted to slow or stop their implementation once regulations have been enacted. Three documented reasons appear to drive this resistance: fear of liability, reporting logistics, and questions of efficiency. First, public reporting is thought (often without justification) to lead to an increase in liability for hospitals in HAI cases.⁴⁰ Second, hospitals are concerned that data on hospital infection rates will not be reported or publicized in a way that presents an accurate picture of individual risk of infection, with hospitals conceivably varying in their reporting diligence and patients conceivably varying across hospitals in their propensity for infection.⁴ Finally, many in the health care and public health community fear that resources spent on inefficient surveillance may divert resources from patient care and prevention.⁴¹ Consequently, with the infrastructural changes necessary to meet new state reporting requirements,²⁶ it would be advantageous to incorporate health care organizations in the planning of reporting procedures to understand better the complexity and laboriousness of data collection and reporting and develop commitment from health care organizations through "ownership" of the resulting legislation.

In light of the range of approaches developed by states in addressing HAI reporting, regulatory reform efforts could benefit from the recent development of model legislation. With states having each previously approached this issue *de novo*, federalism has not led to improvements in public health protection because hospital associations have divided states in an apparent effort to weaken legislation and

regulation. Model legislative language, analogous to the Turning Point Model State Public Health Act,³⁶ would allow for the incorporation of best practices for public health in every state's laws, providing baseline protections in infection control legislation and requiring pressing justification for deviating from this language.⁴² APIC's *Model Legislation on Public Reporting of Healthcare-Associated Infections* should facilitate the improvement and standardization of state HAI regulations, a process that has begun in several states that have drawn on the APIC's work in drafting state legislation (eg, New Jersey). These model templates notwithstanding, current model legislation initiatives specify only the process of creating regulations, not the substance of those regulations, providing more of a general statement of principles than an enumeration of specific organisms and sites of infection to be collected and reported. For states to develop best practices in HAI control, substantive legislative and regulatory provisions for mandatory HAI reporting, based on the current state of HAI epidemiology, would make an even greater contribution.

Finally, whereas early adopting states employed legislative specificity in HAI reporting, current lawmaking practices give flexibility to the regulating agency through broad legislative delegation. For many states, regulation has proved to be a less politically cumbersome approach to law reform than statutory change, providing necessary legal specificity without the risk of legislative retrenchment inherent in opening a state's public health statutes to amendment. With this delegation to the regulating agency, this general legislative authority has expanded health department public health surveillance into the realm of quality control for the practice of medicine.⁴³ In confronting this uncharted terrain for health departments, it will be necessary to develop consensus on best practices for infection control in model regulations, providing an improved understanding of what state agencies must do to assure standardized reporting methods. Rather than simply giving token reference to the wide range of voluntary standards, model legislation should provide the normative judgments to select among standards and allow for uniform and consistent state approaches to key infection control activities.

CONCLUSION

This research allows examination of whether regulations specifying mandatory reporting are able to deal more effectively with the evolving issues of HAI or whether the interest in reporting institution-specific data requires specific legislation, either to support the reporting or to stymie countervailing lobbying in the

disclosure of information. The present results provide researchers with additional information to facilitate future research on questions of regulatory efficacy for HAI prevention and control. This project has created a Web-based system amenable to regular updating as regulations are promulgated, communicating its results and analysis to the public health community to assist in improving future regulatory reform efforts for HAI prevention and control. Because these laws have only recently been developed, with many bills currently pending in state legislatures or with regulations not yet enacted, it will be necessary to keep this legal tracking updated frequently, with real-time updates through Internet dissemination. With periodic updating of these nascent regulations in the database and communication to the public health and infection control communities, this project will inform policy makers of the various regulatory mechanisms that can be utilized as templates for mandatory reporting of HAI.

Given the dearth of research on the effect of mandatory hospital reporting systems on rates of infection, additional research is needed to assess the political and policy efforts undertaken in states to translate best practices for infection control into law and practice. With these mandatory reporting laws rapidly coming into force across the country, there exists a unique window of opportunity to assess the impact of mandatory reporting on infection control programs, practices, and infection rates over time. Through future analysis and ongoing legislative tracking in all 50 states, researchers can investigate how (1) HAI reporting is codified into state law (eg, obstacles to legal reform) and (2) modernized state HAI regulations can influence medical practice. In this latter consideration, despite enthusiastic support for the public release of performance measures and extensive adoption of quality measurement and reporting, there is little evidence of the effect of public reporting on the delivery of health care, and even less is known about how this reporting may improve HAI rates. Future research will be necessary to assess the longer term effects of mandatory HAI reporting on infection control departments' practices and their consequent effect on HAI rates.

It is a tragic irony of our health care system that patients have found harm in places of healing. In the past 30 years, however, thinking has evolved from fatalism about the inevitability of HAI to hospital-based efforts to control infection and now to legislative requirements to inform patients. Although institutional medical care can never be free of risk, there is growing awareness that the risks of HAI can be greatly diminished through improved processes of care and that the law may be the impetus for abating these infections that cut into the public's health.

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References

- Kleves RM, Edwards JR, Richards C Jr, Horan TC, Gaynes RP, Pollock DA, et al. Estimating health care-associated infections and deaths in U.S. hospitals, 2002. *Public Health Rep* 2007;122:160-6.
- Centers for Disease Control and Prevention (CDC). Monitoring hospital-acquired infections to promote patient safety—United States, 1990-1999. *MMWR* 2000;49:149-53.
- Pittet D, Donaldson L. Challenging the world: patient safety and health care-associated infection. *Int J Qual Health Care* 2006;18:4-8.
- Becker C. Hospital-acquired infection reporting laws and legislation. *AORN J* 2006;83:1394-402.
- McKibben L, Fowler G, Horan T, Brennan PJ. Ensuring rational public reporting systems for health care-associated infections: systematic literature review and evaluation recommendations. *Am J Infect Control* 2006;34:142-9.
- Nolan P. Unclean hands: holding hospitals responsible for hospital-acquired infections. *Columbia J Law Social Problems* 2000;135-40.
- Nash DB. Hospital-acquired infections: raising the anchoring heuristic. *Am J Med Qual* 2006;21:5S-6S.
- Centers for Disease Control and Prevention (CDC). Hand hygiene in health care settings. Available at: <http://www.cdc.gov/handhygiene/>. 2002. Accessed June 15, 2008.
- Larson EL. APIC Guidelines Committee. APIC guideline for hand-washing and hand antisepsis in health care settings. *Am J Infect Control* 1995;23:251-69.
- Centers for Disease Control and Prevention (CDC). Overview of health care-associated MRSA. Available at: www.cdc.gov/ncidod/dhqp/ar_mrsa.html. 2007. Accessed
- Stone PW, Gupta A, Loughrey M, et al. Attributable costs and length of stay of an extended-spectrum β -lactamase-producing *Klebsiella pneumoniae* outbreak in a neonatal intensive care unit. *Infect Control Hosp Epidemiol* 2003;24:601-6.
- National Quality Forum. National voluntary consensus standards for the reporting of healthcare-associated infection data. Available at: www.qualityforum.org/txnqfprojectssummaryHAI11-18-05rynl.pdf. 2005. Accessed
- Murphy D, Whiting J. Dispelling the myths: the true cost of healthcare-associated infections. APIC 2007. Available at: <http://www.hfma.org/NR/rdonlyres/FEE9226Z-8F44-41E6-B410-4AFA4E0Z00B6/0/400546APICDispellingtheMythsTrueCostofInfections.pdf>. Accessed June 15, 2008.
- Stone PW, Braccia D, Larson E. Systematic review of economic analyses of health care-associated infections. *Am J Infect Control* 2005;33:501-9.
- Graves N. Economics and preventing hospital-acquired infection. *Emerg Infect Dis* 2004;10:561.
- Gaynes RP, Solomon S. Improving hospital-acquired infection rates: the CDC experience. *Jt Comm J Qual Improv* 1996;22:457-67.
- Cardo DM, Brennan PJ, Peaden D, Khabbaz R. Mandatory reporting of hospital-acquired infections: steps for success. *J Law Med Ethics* 2005;33:86-8.
- National Nosocomial Infections Surveillance (NNIS). National Nosocomial Infections Surveillance System Report, data summary from January 1992 through June 2004. *Am J Infect Control* 2004;32:470-85.
- Goldberg DS. Studies point to hospitals' role in prevalence of hospital-acquired infections. *Health Law Perspectives*. Available at: <http://www.law.uh.edu/healthlaw/perspectives/search2.asp>. 2007. Accessed
- United States Department of Health and Human Services (HHS). Healthy people 2010/US Department of Health and Human Services. Conference edition. Washington, DC: US Department of Health and Human Services; 2000.
- Penn Pub L 31 No. 14, 2003.
- Fla Stat Tit XXIX ch 408.5, 2004.
- Consumers Union. 2007 Legislative session: hospital-acquired infection public reporting bills. Available at: http://www.consumersunion.org/campaigns/2007_SHI_chart.pdf (last updated September 6, 2007). 2007. Accessed
- Committee to Reduce Infection Deaths 2007. Available at: www.hospitalinfection.org. Accessed
- Edmond MB, Bearman GML. Mandatory public reporting in the USA: an example to follow? *J Hosp Infect* 2007;65(Suppl 2):182-8.
- Association for Professionals in Infection Control and Epidemiology (APIC). APIC position on mandatory public reporting of health care-associated infections. Available at: http://www.apic.org/Content/NavigationMenu/GovernmentAdvocacy/PositionPapers/MandRpt_posnPaoper_2005.pdf. 2005. Accessed
- Association for Professionals in Infection Control and Epidemiology (APIC). Model legislation on public reporting of health care-associated infections. Available at: http://www.shea-online.org/Assets/files/Model_Legislation_-_APIC_IDSA_SHEA.pdf. 2006. Accessed
- Association for Professionals in Infection Control and Epidemiology (APIC). Government advocacy: legislation in progress. Available at: http://www.apic.org/scriptcontent/custom/dyncontent/legislation/index.cfm?section=government_advocacy. 2007. Accessed
- Gostin LO. *Public Health Law: Power, duty, restraint*. Berkeley: University of California Press; 2000.
- Weber SG, Huang SS, Oriola S, Huskins WC, Noskin GA, Harri-man K, et al. Society for Healthcare Epidemiology of America, and Association of Professionals in Infection control and Epidemiology. Legislative mandates for use of active surveillance cultures to screen for methicillin-resistant *Staphylococcus aureus* and vancomycin-resistant enterococci: position statement from the joint SHEA and APIC task force. *Infect Control Hosp Epidemiol* 2007;28:589-93.
- Healthcare-Associated Infection Working Group. Essentials of public reporting of healthcare-associated infections: a tool kit. Available at: http://www.shea-online.org/Assets/files/Essentials_of_Public_Reporting_Toolkit.pdf. Accessed June 15, 2008.
- Meier BM, Gebbie KM, Hodge JG. Contrasting experiences of state public health law reform pursuant to the Turning Point Model State Public Health Act. *Public Health Rep* 2007;122:559-63.
- Stone PW, Horan T, Shih HC, Mooney-Kane C, Larson EL. Comparison of healthcare associated infections using two different mechanisms for public reporting. *Am J Infect Control* 2007;35:145-9.
- New York City Health and Hospitals Corporation. City public hospitals disclose quality, safety record of performance for patients: first in NY State to voluntarily post mortality rates, infection control efforts and other performance indicators. September 7, 2007. Available at: <http://www.nyc.gov/html/hhc/html/pressroom/press-release-20070907.shtml>. Accessed
- Pennsylvania Health Care Cost Containment Council (PHC4). Available at: www.phc4.org. 2007. Accessed
- Turning Point Public Health Statute Modernization National Collaborative. The Turning Point Model State Public Health Act. 2004. Available at: <http://www.hss.state.ak.us/dph/improving/turningpoint/MSPHA.htm>. Accessed
- Advisory Panel on Health Care-Associated Infections, Texas Department of State Health Services. Recommendations and key findings. Available at: www.dshs.state.tx.us/legislative/HAIPanelReport.pdf. 2007.
- JSI Research and Training Institute. Prevention and control of health-care-associated infections in Massachusetts: report from the Expert Panel convened by the Betsy Lehman Center for Patient Safety and

- Medical Error Reduction. Available at: http://www.jsi.com/Managed/Docs/Publications/HealthCareServices/prevention_control_hai.pdf. Accessed June 15, 2008.
39. Texas Department of State Health Services. Recommendations and Key Findings Advisory Panel on Health Care-Associated Infections, Submitted to meet the reporting requirements of SB 872, 79th Legislature, Regular Session. Available at: <http://www.dshs.state.tx.us/legislative/HAIPanelReport.pdf>. 2007. Accessed
 40. Miller JM. Commentary: liability relating to contracting infectious diseases in hospitals. *J Legislative Med* 2004;25:211.
 41. Werner RM, Asch DA. The unintended consequences of publicly reporting quality information. *J Am Med Assoc* 2005;293:1239-44.
 42. Institute of Medicine. The future of the public's health in the 21st century. Washington, DC: Institute of Medicine; 2003.
 43. Fairchild AL, Bayer R, Lopez V. Public health meets the quality movement. On file with author. 2007.

APPENDIX: State HAI Reporting Guidelines

Jurisdiction	Regulatory authority	Citation of authority L=legislation (L)=pending R=regulation N=neither	Hospital-Acquired Infections							Details of report (Required hospital reporter/ role of infection control dept)	Public access to information contained in report		Comments	
			By organism				By infection site				Determined by agency	General		By hospital
			Pneumonia	MRSA	C. difficile	VRE	Surgical site	UTIs	Blood stream					
AL	Dept. of Health*	(L) SB 409, Reg. Sess. (AL. 2007)	X				X	X	X	X		X	X	Active bill currently before the Senate Health Committee Hospitals required to collect data and will face civil sanctions for failure to comply Both voluntary and mandatory reporting requirements
AK	Dept. of Health	L 2007 AL SJR 19, LR038								X	Reporting by any health care provider as determined by the Dept. of Health			Legislature put forth a resolution stipulating the creation of task force for the development of recommendations for hospitals to disclose infection rates One of 5 states that have adopted the Turning Point Model Health Act. Required to report any "disease or condition of public importance". Have neither considered HAI reporting laws nor passed any legislation taking this matter into consideration
AZ	Dept. of Health	R AZ Admin Code §R-9-6-201-SR9-6-207 (Supp 93-04)		X					X	X	Reporting by health care providers and clinical laboratories	X		Director of clinical laboratories must report MRSA under R9-6-204 Table 3 However Dept of Health, through the Arizona Administrative Code, requires reporting of diseases as defined by the CDC.
AR	Dept. of Health	L AR Code Ann § 9-1201-§ 9- 1206 (2007)					X					X		Both voluntary and mandatory reporting requirements

Continued

Jurisdiction	Regulatory authority	Citation of authority L=legislation (L)=pending R=regulation N=neither	Hospital-Acquired Infections							Details of report (Required hospital reporter/ role of infection control dept)	Public access to information contained in report		Comments	
			By organism				By infection site				Determined by agency	General		By hospital
			Pneumonia	MRSA	C. difficile	VRE	Surgical site	UTIs	Blood stream					
CA	Dept. of Health Serv.	L CA Code Health & Safety §1288.5 §1288.9 (2006)	X				X	X	X	Infection Control department oversees hospital measures to prevent infections (L & R)	X	X	The public reporting is based on the CDC's "Guidance to Public Reporting," but only includes process measures relating to the rate at which prevention practices are used. The reporting requirements do not include the Guidance "outcome" measures, such as hospital infection rates, which would reveal whether hospital policies are actually reducing infections.	
CO	Dept. of Public Health*	LCO Rev. Stat. § 25-3 601-§25-3 607 (2006)					X	X	X	Reporting by person certified in infection control (L)	X	X*	*An advisory committee will assist the department *Physicians who diagnose HAI, upon follow-up with patients must report those infections to the facility in which the reportable procedure was done.	
CT	Dept. of Health*	L 2006 CT Pub. Acts 102 (Reg. Sess.)							X		X	X	One of 5 states that have adopted the Turning Point Model Health Act. Required to report any "disease or condition of public importance". *A committee will advise the department on specifics regarding the types of outcome and process measures to be collected, as well as how these are to be collected and reported.	
DE	Dept. of Health and Social Serv.	L H.B. 47 14th Leg. Reg Sess. (DE 2007) substituted by HS I					X	X	X		X	X	HB47 substituted by HSI, which passed the House and the Senate, and was signed by the Governor on July 12, 2007.	
FL	Agency for Health care Admin*	L FL., Stat. Tit. XXIX ch. 408.5 (2004) FL. Stat. Tit. XXIX, ch 408.061 § 1(a)					X	X	X		X	X	*Florida issues hospital-specific reports using the Agency for Health care Research and Quality (AHRQ) Patient Safety Indicators (PSI) scale.	
GA	Hospital Health Care Stand. Comm. for Prevention of HAIs*	L S.J. Res. 22 36th Leg. Gen. Sess. (Ga. 2007)							X				All proposed bills have failed to pass. However, the Georgia Senate created the Health care Standards Commission for Prevention of HAIs. *The commission will study safety standards, best practices, infection rates and causes	

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Jurisdiction	Regulatory authority	Citation of authority L=legislation (L)=pending R=regulation N=neither	Hospital-Acquired Infections							Details of report (Required hospital reporter/ role of infection control dept)	Public access to information contained in report		Comments	
			By organism				By infection site				Determined by agency	General		By hospital
			Pneumonia	MRSA	C. difficile	VRE	Surgical site	UTIs	Blood stream					
HI	Dept. of Health	R HI Admin Rules ch 11-156 (2001)*										All proposed bills have failed to pass. Both proposed bills would have required public reporting. *Only listed communicable diseases and those that represent a risk to the general public are mandated to be reported by health care providers, laboratorians, and hospital administrators.		
ID	Dept. of Health and Welfare	R ID Admin. Code IDAPA Section 16.02.10 (supp. 2007)*										Have yet to consider and/or pass any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians, and hospital administrators.		
IL	Dept. of Health	L 210 IL Comp. Stat. 86 (2005)X S.B. 0233 95th Leg., Reg. Sess.(IL. 2007) enacted P.L. 95-0312*	X			X		X			X	X	Requires 2 or more infection measures to be reported as stipulated by the state's Department of Public Health. The report should include process and outcome measures relating to infection rates in designated critical care units. The measures are to be based on those developed by national quality organizations and agencies. The bill also requires reporting of nurse staffing ratios. *Makes provisions for the screening and reporting MRSA. All hospitals are required to establish an MRSA control program.	
IN	Dept. of Health	R IN Admin. Code tit. 410 (2007)*											All proposed bills have failed to pass. Of the proposed bills SB513 and HB 1592 required public reporting of infection rates. SB 531 gives a committee and agency the authority to determine what infection information should be reported. * State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators.	

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			By organism				By infection site				General	By hospital	
			Pneumonia	MRSA	C. difficile	VRE	Surgical site	UTIs	Blood stream				
IA	Dept. of Public Health	R IA Admin. Code tit. 641 (2007)										Have yet to pass any pertinent legislation *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators.	
KS	Dept. of Health	R KS Admin. Regs. 28-1-2(supp. 2007)* KS Admin. Regs. 28-1-4(supp. 2007)*										All proposed bills have failed to pass before crossover deadline. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians, and hospital administrators	
KY	Cabinet for Health and Family Services	R 214 KY Admin. Regs. 214.010 (2005)*										Have yet to pass any pertinent legislation. *Physicians and families are to report certain diseases as determined by the Cabinet for Health and Family and Services.	
LA	Dept. of Health and Hospital, Office of Public Health	R LA Admin. Code. tit. 51,101-119 (2007)*										Have yet to pass any pertinent legislation *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators.	
ME	Dept. of Health and Human Services	R Code ME. R.§10-144 ch. 258 (2007)*										Have yet to pass any pertinent legislation *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators.	
MD	Health-Care Commn.	L MD Code Ann. Health §19-134 (2006)		X					X		X		
MA	Dept. of Health	(L) H.B. 2207 Leg. Reg. Sess.(Ma. 2007)*	X			X	X	X		X		Active bills currently under consideration *Proposed act promoting disclosure of HAIs	
MI	Dept. of Health	(L) H.B. 4158 Leg. Reg. Sess. (Mi 2007)						X	X		X	General Provisions for reporting HAIs	
MN	Dept. of Health/ MN Hospital Assn.	L 2007 Minn. Laws ch. 147, Art. 9, 144.565 Subd. 5, § 17		X					X		X	Reportable infections will be those endorsed by the National Quality Forum. State will additionally require quality of care and patient safety reports	

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MS	State Board of Health	L MS Code Ann. §41-23-1 (2000)*											Have yet to pass any pertinent legislation *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians, and hospital administrators	
MO	Dept. of Health & Senior Services	L MO Rev. Stat. § 192 (2006)	X	X	X	X		X			X	X		
MT	Dept. of Public Health & Human Services	R MT Admin. R. 37.114 (2006)											*State makes provisions for certain listed diseases to be reportable by health care providers laboratorians, and hospital administrators	
NE	Dept. of Health	L 2005 NE Laws 301 §41					X		X				Reports not to be shared with the general public	
NV	Health Division of the Dept. of Human Res.	L NV Rev. Stat. Ann. §441A.(2005)											Reports not to be shared with the general public. Certain medical facilities are required to report HAIs as sentinel events	
NH	Dept. of Health and Human Services	L NH Rev. Stat. Ann. §151:33 (2006)					X	X	X			X	Required hospitals to report infection rates as well as measures they use to prevent infections	
NJ	Commissioner of Health and Senior Services	(L) S.147/919 212th Leg. Gen. Sess. (Nj. 2007)	X	X			X	X	X	X	X	X	S919 was combined with S147 on June 6, 2007, S147 passed the Senate and the Assembly on June 21, 2007. Not only would it require public reporting of HAIs rates, it would also require disclosure to the public of each hospital's numbers on certain medical errors known as "never events."	
NM	Dept. of Health	R NM Admin. Code tit. §7 4.3 (2006)*											All bills failed to pass before crossover deadline. *State makes provisions for certain listed disease to be reportable by health care provider, laboratorians and hospital administrators	
NY	Dept. of Health	L NY Pub. Health Law §2819(2005)					X	X	X		X	X		

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NC	Dept. of Health	L H 1738, Leg. Gen. Sess. (NCX 2007)					X	X	X		*	*	*Bill creates an advisory commission to make recommendations in 2009 for a public reporting system and proposed legislation for public disclosure.	
ND	State Dept. of Health	R ND Admin. Code Health and Safety §208 (2003)*											Have yet to consider any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators	
OH	Dept. of Health/ Hospital Meas. Advisory Council	R OH Admin. Code §3727.312 (2006)							X		X	X	Creation of a hospital measures advisory council to oversee collection and reporting of hospital quality measure and hospital-acquired infection measures.	
OK	Dept. of Health	R OK Admin. Code §310.515 (2006)* OK Admin. Code 310:667-40-11(C)(2)(E)*											Have yet to consider any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians, and hospital administrators. **State emergency hospital must document HAIs, but disclosure is restricted and only made consistent with state or federal laws, or pursuant to court order.	
OR	Dept. of Admin. Services	L H.B. 2524 74 th Leg. Gen. Sess. (Or. 2007)					X	X	X	X		X	X	HB2524 was signed by the Governor on July 27, 2007.
PA	Health Care Cost Containment Council	L, (L) P.L. 31 No. 14 (PA 2003)* H.B.700. Leg. Reg. Sess. (PA 2007)*	X										X	*Enacted legislation designed to decrease and/or contain health care costs by collecting and disseminating data that would make the participants of the health care system publicly accountable **Comprehensive provisions aimed at eliminating HAIs and medical errors. Requires hospitals to track and report infection and medical error trends and to use evidence based universal surveillance

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RI	Dept. of Health	L RI.Gen. Laws. 23-17.17(2006) SB0650 (2007)*							x			Voluntary reporting only Requires existing hospital quality steering committee to consider adding measures associated with HALs to the state hospital quality of care reports. *Bill required public reporting of HALs held and recommended for future study		
SC	Dept. of Health and Environ. Control	L SC Code Unann. §44-7-2410 (2006)	x				x	x	x			*A committee, which will include consumer representation, will advise the Dept. on methodology for collecting, analyzing, and disclosing information		
SD	Dept. of Health	R SD Admin. R 44:20:02:0 (2006)*										Have yet to pass any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians, and hospital administrators		
TN	Dept. of Health	L TN Code Ann. 68-11-263 (2006)					X*	X**			X	*Surgical infection rate data to be reported through the CDC. **The department will only publish central line bloodstream infection in intensive care units		
TX	Dept. of Health	L TX. HB 1398 amending TX. Health & Safety Code Ann. 98-001 et. seg. (2007)	X				X	X	X		X			
UT	Dept. of Health.	R UT Admin. Code §26-6-1 (2007)										Have yet to consider any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators		
VT	Health Care Admin.	L VT Stat. Ann. tit.18 § 9405b (2006)					X		X		X	X		

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VA	Board of Health	L VA Code Ann. § 32.1-§35.1 (2005)								X*	X**		*Only acute care hospitals must report nosocomial infection rates through the CDC. There are no specifics on what will be collected or how. **Information made available to the public upon request	
WA	Dept. of Health.	(L) HB. 1106 60th Leg. Reg. Sess. (WA 2007)	X				X	X			X	X	Requires disclosure of rate at which patients acquire certain infections during treatment. Data will initially be obtained on central line associated bloodstream infections in intensive care units (from July 1,2008), then ventilator-associated pneumonia (from January 1,2009), and then surgical site infections for certain procedures (from January 1, 2010). By December 1,2009, the Dept. of Health will start publishing a report comparing HAIs rates at hospitals in the state	
WV	Dept. of Health	R WV Code ST. R.											All proposed bills have failed to pass before crossover deadlines. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators	
WI	Dept. of Health	R WI Admin. Code HFS §145 (2003)											Have yet to enact any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators.	
WY	Dept. of Health	R WY Rules and Regs. ch. 11 §5289 (2006)											Have yet to enact any pertinent legislation. *State makes provisions for certain listed diseases to be reportable by health care providers, laboratorians and hospital administrators	