



# **Report and Recommendations on Implementation of a Statewide Hospital Hand Hygiene Campaign**

Prepared by the  
Healthcare-Associated Infections  
Advisory Committee  
and its  
Hand Hygiene and Infection Prevention  
Subcommittee

August 31, 2009

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Chair

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Executive Director



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## I. Introduction

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### Background

Hand hygiene is universally recognized as an essential component of any program to prevent healthcare-associated infections. To focus attention on the importance of hand hygiene in reducing healthcare-associated infections (HAI), the Maryland Health Care Commission's former Technical Advisory Committee on HAI recommended the development of a statewide hand hygiene campaign in conjunction with other recommendations.<sup>1</sup>

More recently, the Plan to Prevent Healthcare-Associated Infections released earlier this year by the U.S. Department of Health and Human Services (DHHS) states:

*Adherence to current prevention recommendations in healthcare settings has been generally suboptimal, even when knowledge of recommended practices is sufficient. Several lines of evidence suggest that merely increasing adherence to currently recommended practices can result in a dramatic reduction in infection rates, at least for some infection types. A better understanding of the barriers to adherence, and strategies to overcome those barriers, are needed to promote improvements.... Standardized methods (i.e., performance methods) that are feasible, valid, and reliable for measuring and reporting compliance with broad-based HAI prevention practices that must be practiced consistently by a large number of healthcare personnel (e.g., compliance with hand hygiene, isolation precautions, environmental cleaning practices) in order to prevent infections.*<sup>2</sup>

With a growing number of reported cases of the novel H1N1 influenza, commonly called Swine Flu, in the United States, the threat of a widespread outbreak is of great concern to state health officials.<sup>3</sup> Hand hygiene is at the forefront of preventive measures to curb healthcare-associated infections, including influenza.

### Healthcare-Associated Infections Advisory Committee

The importance of reducing preventable healthcare-associated infections has been recognized as a priority by Maryland legislators, hospitals, healthcare providers, and State health policy professionals. Under legislation adopted by the Maryland General Assembly, the Commission has undertaken a number of activities designed to collect and report data on HAIs. To assist in developing and implementing a plan for HAI data collection and reporting, the Commission appointed an HAI Advisory Committee consisting of representatives from acute

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<sup>1</sup> Technical Advisory Committee on Healthcare-Associated Infections, Developing a System for Collecting and Publicly Reporting Data on Healthcare-Associated Infections in Maryland, 2008.

<sup>2</sup> U.S. Department of Health and Human Services, Action Plan to Prevent Healthcare-Associated Infections, June 2009, p. 29-30.

<sup>3</sup> Novel H1N1 Flu Situation Update, Centers for Diseases Control and Prevention, August 7, 2009. Accessed at <http://www.cdc.gov/h1n1flu/update.htm#totalcases>

care hospitals, long term care facilities, ambulatory surgery centers, health insurers, the Maryland Patient Safety Center, the Society of Healthcare Epidemiology of America (SHEA), and the Association for Professionals in Infection Control and Epidemiology, Inc. (APIC). In addition, the Advisory Committee includes a public health lawyer and a patient/health care consumer. Figure 1 provides a list of HAI Advisory Committee members.

## **Purpose of this Report**

At their June 10, 2009 meeting, the Maryland Health Quality and Cost Council adopted a key recommendation from its Evidence-Based Medicine Work Group calling for the implementation of a statewide Hand Hygiene campaign. In October 2007, Governor O'Malley created the 14-member Maryland Health Quality and Cost Council through an Executive Order to focus priorities for improving health care in Maryland. The Council is chaired by Lieutenant Governor Anthony G. Brown. Department of Health and Mental Hygiene Secretary John M. Colmers serves as Vice Chair of the Council. The Council is tasked with developing strategic health policy reforms to improve the health of Maryland's residents, maximize the quality of health care services, and contain health care costs.

The Council has prioritized conducting a statewide hand hygiene initiative and prevention of healthcare-associated infections as part of its work plan. To implement this recommendation, the Council requested consultation from the Healthcare-Associated Infections Advisory Committee of the Maryland Health Care Commission (Appendix A provides a Letter from Secretary Colmers requesting recommendations from the Commission's HAI Advisory Committee). Specifically, the Council requested recommendations regarding the guiding principles, methodology, and data collection for a statewide Hand Hygiene campaign to be implemented this fall. This *Report and Recommendations on Implementation of a Statewide Hospital Hand Hygiene Campaign* has been prepared by the HAI Advisory Committee and its Hand Hygiene and Infection Prevention Subcommittee in response to the request from the Maryland Health Quality and Cost Council.

## **About the Maryland Health Care Commission**

The Maryland Health Care Commission is a 15-member, independent commission, functioning administratively within the Maryland Department of Health and Mental Hygiene. The 15 Commissioners are appointed by the Governor with the advice and consent of the Maryland Senate. The Maryland General Assembly created the Commission in 1999 through the consolidation of two existing commissions to "establish a streamlined health care regulatory system within the State of Maryland in a manner such that a single State health policy can be better articulated, coordinated, and implemented in order to better serve the citizens of this State." The Commission is organized around five major areas: Center for Hospital Services; Center for Long-term Care and Community-Based Services; Center for Financing and Health Policy; Center for Information Services and Analysis; and Center for Health Information Technology.

**Figure 1**  
**Maryland Health Care Commission**  
**Center for Hospital Services**

**Healthcare-Associated Infections (HAI) Advisory Committee**

**Beverly Collins, M.D., MBA, MS**  
Medical Director, Healthcare Informatics  
CareFirst BlueCross BlueShield

**\*Jacqueline Daley, HBSc, MLT, CIC, CSPDS**  
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**Elizabeth P. (Libby) Fuss, RN, MS, CIC**  
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Carroll Hospital Center

**Andrea Hyatt**  
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**\*Sara E. Cosgrove, M.D., M.S.**  
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University of Maryland Medical System

**Anthony Harris, M.D., M.P.H.**  
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Director, Infection Prevention and Control  
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**Carol B. Payne**  
Consumer Representative  
Baltimore Office, HUD

*\*Members of the Hand Hygiene and  
Infection Prevention Subcommittee*

August 2009

The Center for Hospital Services is responsible for Hospital Quality Initiatives, including the Hospital Performance Evaluation Guide. The Maryland legislature adopted Senate Bill 135, Hospitals-Comparable Evaluation System-Health Care-Associated Infection Information in 2006. This law, which became effective July 1, 2006, requires that the Hospital Performance Evaluation Guide developed by the MHCC be expanded to include HAI information from hospitals. The legislation specifies that the system for reporting data must adhere to the current recommendations of the federal Centers for Disease Control and Prevention (CDC) and the CDC Healthcare Infection Control Practices Advisory Committee (HICPAC) regarding the public reporting of HAIs.

## II. Characteristics of an Optimal Hand Hygiene Program

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Reducing the risk of healthcare-associated infections is one of the Joint Commission's National Patient Safety Goals. To address this goal, hospitals are required to comply with CDC or WHO hand hygiene guidelines. The characteristics of an optimal hand hygiene program are outlined in Table 1. The World Health Organization guidelines for hand hygiene, which provide the foundation for measurement, define five opportunities for hand hygiene (Refer to Figure 2).

**Table 1. Characteristics of an Optimal Hand Hygiene Program**

<b>Program Foundation</b>	Institutional commitment at the highest levels at the hospital Under the guidance and control of Infection Prevention (IP)
<b>Hand Hygiene</b>	Hand hygiene (alcohol-based rub; soap and water) should take place at all five WHO moments: <ul style="list-style-type: none"><li>▪ Before touching a patient,</li><li>▪ Before clean/aseptic procedures,</li><li>▪ After body fluid exposure/risk,</li><li>▪ After touching a patient, and</li><li>▪ After touching patient surroundings</li></ul>
<b>Monitoring</b>	Non-IP staff should conduct the observations Standardized training should be implemented for all observers Observers should use a standardized tool with a minimum number of observations of at least 30 per unit per month All shifts and units should be monitored
<b>Impact</b>	Education and feedback should be provided to healthcare workers Implement a public campaign alerting patients, family members, and visitors to the efforts and stressing the importance of hand hygiene for everyone

Figure 2  
World Health Organization Five Moments for Hand Hygiene





### III. Overview: Measuring Hand Hygiene Compliance

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To gain an understanding of the characteristics of current programs for monitoring compliance with hand hygiene guidelines, a *Survey of Maryland Hospital Hand Hygiene Monitoring* was conducted over the period August 5-11, 2009. (A copy of the survey tool is provided in Appendix B). The survey collected information on: hand hygiene opportunities measured; aspects of hand hygiene measured; categories of health care workers observed; frequency of monitoring; and types of staff conducting observations. Hospitals were also asked to forward a copy of their hand hygiene monitoring tool. The survey was prepared in an on-line format using the *SurveyMonkey* software. An electronic link to the survey was forwarded via e-mail to the Infection Preventionist(s) at each hospital on August 5, 2009. As of August 26, 2009, more than two-thirds (32) of Maryland hospitals had responded to the survey.

#### Overview of Maryland Hospitals

As of July 1, 2009, there are 47 non-Federal, acute general hospitals licensed to operate a total of 10,880 beds in Maryland. On average, acute general hospitals were licensed for 232 beds as of July 1, 2009. Table 2 shows the distribution of Maryland hospitals by total number of licensed beds.

**Table 2. Distribution of Acute General Hospitals by Number of Licensed Beds: Maryland, July 1, 2009**

Number of Licensed Beds	Number of Hospitals	Percent of Total	Number of Beds	Percent of Total
400+	4	8.5%	2,538	23.3%
300-399	9	19.2%	2,985	27.4%
200-299	13	27.7%	3,218	29.6%
100-199	12	25.5%	1,690	15.5%
50-99	5	10.6%	355	3.3%
<50	4	8.5%	94	0.9%
<b>Total</b>	<b>47</b>	<b>100.0%</b>	<b>10,880</b>	<b>100.0%</b>

Source: Maryland Health Care Commission, Annual Report on Hospital Services and Licensed Bed Capacity: Fiscal Year 2010.

#### Data Collection Tools

While all hospitals responding to the survey report the use of a data collection tool to observe and monitor hand hygiene compliance, there is no one standard tool used by Maryland hospitals.

## Hand Hygiene Opportunities Measured

There is considerable variation in the number and types of opportunities for hand hygiene measured by hospitals. The World Health Organization identifies five opportunities for hand hygiene<sup>4</sup>: before patient contact; before aseptic task; after body fluid exposure risk; after patient contact; and, after contact with patient surroundings. Hospitals were requested to indicate all of the opportunities for hand hygiene measured in their monitoring system. The format of the question provided the World Health Organization opportunities as well as categories for “Entry into Patient Environment”, “Exit from Patient Environment”, “During Patient Care”, and “Other”. The most frequent response regarding which opportunities for hand hygiene are measured was “After Patient Contact” followed by “Before Patient Contact” (Refer to Table 3). “After Contact with Patient Surroundings”, “Exit from the Patient Environment” and “Before Aseptic Task” were the next most frequent hand hygiene opportunities measured by hospitals responding to the survey. In responding to this question, several hospitals noted that “Before and After Patient Contact” reflected “Entry and Exit from the Patient Environment”.

Only 6 of the 32 hospitals responding to the survey reported measuring all five World Health Organization opportunities for hand hygiene. The majority of hospitals measured up to four opportunities reflecting before and after (either Entry/Exit from Patient Environment or Before/After Patient Contact) patient contact and “After Contact with Patient Surroundings”.

**Table 3. Opportunities for Hand Hygiene Measured by Maryland Hospitals**

Options	Percent	Number of Hospitals
Entry into Patient Environment	31.3%	10
Exit from Patient Environment	40.6%	13
Before Patient Contact*	78.1%	25
Before Aseptic Task*	43.8%	14
After Body Fluid Exposure Risk*	18.8%	6
After Patient Contact*	81.3%	26
After Contact with Patient Surroundings*	53.1%	17
During Patient Care	21.9%	7
Other (please specify)	25.0%	8
Answered Question		32
*Refers to World Health Organization “Five Moments for Hand Hygiene” The most common “Other” reported was after removing gloves		

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

<sup>4</sup> Sax, H., Allegranzi, B., Uckay, I., Larson, E., Boyce, J. and Pittet, D. ‘My five moments for hand hygiene’: a user-centered design approach to understand, train, monitor and report hand hygiene. *Journal of Hospital Infection* (2007) 67, 9-21.

## Aspects of Hand Hygiene Measured

All Maryland hospitals measure whether or not hand hygiene was observed (Refer to Table 4). Slightly less than one-half of those responding to the survey measured the type of product used, including alcohol-based rub or soap and water. A smaller number of hospitals observed the thoroughness of cleaning and appropriate use and removal of gloves.

**Table 4. Aspects of Hand Hygiene Measured**

Options	Percent	Number of Hospitals
Observed Cleaning Hands (Yes/No)	100.0%	32
Type of Product Used (Alcohol-based rub; soap and water)	43.8%	14
Thoroughness of Cleaning (Appropriate amount of product, proper amount of time)	34.4%	11
Glove Use (Appropriate use, proper removal)	37.5%	12
Other (please specify)	21.9%	7
Answered Question		32
“Other” responses included availability of soap/alcohol rub and paper towels and finger nail length.		

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

## Categories of Health Care Workers and Other Persons Observed

Nurses and physicians were the most frequently observed categories of health care workers in Maryland hospital hand hygiene monitoring programs. The next most frequently observed category was the category of Environmental Services staff. Only a small number of hospitals observed visitors and patient family members as part of their hand hygiene monitoring.

**Table 5. Categories of Health Care Workers and Other Persons Observed**

Options	Percent	Number of Hospitals
Nurses	96.9%	31
Physicians (Attending Physicians, Fellows, Residents, and Interns)	96.9%	31
Environmental Services	93.8%	30
Visitors/Patient Family Members	18.8%	6
Other (please specify)	87.5%	28
Answered Question		32
“Other” responses included all healthcare workers, all patient care givers, volunteers, dietary, housekeeping staff among others.		

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

## Units Regularly Monitored within the Hospital

All but one hospital reported monitoring inpatient units and intensive care units. The emergency department was monitored by 29 of the 32 reporting hospitals. Only about one-half of the responding hospitals reported monitoring outpatient clinics. Three-quarters of the hospitals monitored units on a monthly basis. Twenty of the 32 hospitals performed between 10 and 50 observations monthly with the majority performing between 10 and 30 observations.

**Table 6. Units Regularly Monitored within the Hospital**

Options	Weekly	Monthly	Quarterly	Periodic	Number of Hospitals
Inpatient Units	3	24	1	3	31
Newborn Nursery	1	18	0	3	22
Intensive Care Units	3	24	1	3	31
Neonatal Intensive Care Units	1	12	0	2	15
Emergency Department	1	23	1	4	29
Ambulatory Surgery	1	20	1	3	25
Outpatient Clinics	1	12	1	4	18
Other	0	5	0	1	6
				Answered Question	32

Most common "Other" was laboratory and radiology.

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

**Table 7. Minimum Number of Observations**

Observations	Percent	Number of Hospitals
Less than 10	12.5%	4
10 < 30	40.6%	13
30 < 50	21.9%	7
50 < 70	12.5%	4
70 or greater	12.5%	4
	Answered Question	32

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

**Table 8. Measurement Time Period**

<b>Options</b>	<b>Percent</b>	<b>Number of Hospitals</b>
Per week	6.3%	2
Per month	71.9%	23
Per quarter	15.6%	5
Other (please specify)	6.3%	2
Answered Question		32

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

### **Types of Staff Conducting Hand Hygiene Observations**

In addition to Infection Preventionist staff, the vast majority of hospitals used other hospital staff to observe and collect data on hand hygiene compliance. Thirteen of the 32 reporting hospitals used “Secret Shoppers” to collect hand hygiene data.

**Table 9. Types of Staff Conducting Hand Hygiene Observations**

<b>Options</b>	<b>Percent</b>	<b>Number of Hospitals</b>
Infection Preventionists	65.6%	21
Other Infection Prevention Staff	9.4%	3
Other Hospital Staff	93.8%	30
Patients	3.1%	1
Secret Shoppers	40.6%	13
Other (please specify)	31.3%	10
Answered Question		32

“Other” responses included department managers and unit-based auditors.

Source: Maryland Health Care Commission, Survey of Maryland Hospital Hand Hygiene Monitoring, August 2009.

## IV. Recommendations

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In response to the request from Secretary Colmers, the Healthcare-Associated Infections Advisory Committee and its Subcommittee on Hand Hygiene and Infection Prevention have developed recommendations regarding the guiding principles, public education, measurement of hand hygiene compliance, and data collection and implementation for a statewide Hand Hygiene Campaign to be implemented this fall.

### **Principles to Guide the Development of a Hospital Hand Hygiene Campaign in Maryland**

To guide the development of a hospital Hand Hygiene Campaign in Maryland, the Healthcare-Associated Infections Advisory Committee recommends the following principles:

1. A statewide Hand Hygiene Campaign should be of value to participating hospitals in promoting infection prevention and control; be part of a larger public health initiative to promote and spread community awareness about the benefits of hand hygiene; and, inform State health policy efforts designed to improve quality and reduce the burden of illness.
2. A statewide Hand Hygiene Campaign should complement and strengthen the on-going work of all Maryland hospitals to promote adherence to hand hygiene guidelines. All Maryland hospitals should participate in the statewide hand hygiene campaign.
3. A statewide Hand Hygiene Campaign should adopt a uniform approach for measuring and reporting hand hygiene compliance that can be rapidly implemented, and provide performance measure benchmarks to participating hospitals that can drive improvement.
4. The development of a statewide Hand Hygiene Campaign should include: support for training; provisions for enhancing the infrastructure required to report and analyze hand hygiene data; and, an evaluation of the impact of the campaign and recommendations for sustaining an on-going program, including an assessment of the role of public reporting in promoting and maintaining adherence to hand hygiene guidelines.

## **Public Education**

***Recommendation 1. In conjunction with the statewide hospital Hand Hygiene Campaign, the Maryland Council on Health Quality and Cost, and the Commission's Healthcare-Associated Infections Advisory Committee should develop a public awareness campaign to emphasize the importance of hand hygiene in preventing HAIs, including influenza.***

Hand hygiene is everyone's responsibility. A key component of an effective statewide program to promote hand hygiene is a public awareness campaign that educates the community at large about the role of hand hygiene in preventing infections, especially influenza. The launch of a Maryland hospital Hand Hygiene Campaign provides a unique opportunity to prioritize the development of a community education initiative focusing on the importance of hand hygiene. These parallel efforts can be mutually reinforcing.

## **Measurement of Hand Hygiene Compliance**

***Recommendation 2. The Healthcare-Associated Infections Advisory Committee recommends that hospital hand hygiene programs be supervised by Infection Preventionists.***

***Recommendation 3. The Healthcare-Associated Infections Advisory Committee recommends that hospital programs measuring adherence to hand hygiene protocols be required to use trained non-Infection Preventionist staff to conduct observations.***

Infection Preventionists should lead the development and implementation of hand hygiene programs and on-going efforts to monitor adherence to recommended hand hygiene guidelines within hospitals. Direct observation of hand hygiene behavior of health care workers, which is currently used by all Maryland hospitals, is considered the "gold standard" of methods to measure adherence to hand hygiene protocols.<sup>5</sup> Data collected in the Survey of Maryland Hospital Hand Hygiene Monitoring indicates that many hospitals use Infection Preventionists and Infection Prevention staff to collect observational data on compliance with hand hygiene guidelines. While infection prevention staff clearly have the expertise to assess hand hygiene at their institution, it is preferable to have non-infection prevention staff, whose purpose is unknown to the staff being observed, conduct hand hygiene surveys to minimize the "Hawthorne effect" and improve the validity of the data collected.

***Recommendation 4. The Healthcare-Associated Infections Advisory Committee recommends that hospital programs measuring adherence to hand hygiene protocols be required to use trained observers to perform data collection. A formal, statewide program should be developed to train observers to ensure the collection of consistent and reliable data on hand hygiene adherence.***

The role and training of independent observers is a key aspect of developing reliable data to measure adherence to hand hygiene protocols. The goal of training observers is to ensure that different observers within and across hospitals document hand hygiene observations in a

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<sup>5</sup> The Joint Commission. *Measuring Hand Hygiene Adherence: Overcoming the Challenges*. 2009. page 19.

consistent manner. A statewide training program should provide standard educational materials and the ability to test inter-observer reliability.

**Recommendation 5. The Healthcare-Associated Infections Advisory Committee recommends that hospital programs be required initially, at a minimum, to collect data on adherence to hand hygiene protocols: after touching a patient or touching a patient's surroundings; by major discipline of health care worker, including nurses, physicians, environmental services, food services, and ancillary support staff who enter patient environments; and, for inpatient and intensive care units and the emergency department. There should be a minimum of 30 observations per month for each unit.**

While there are a variety of tools currently in use for monitoring hand hygiene compliance in Maryland hospitals, no one of which is generally accepted as standard, there are many common elements that could provide the foundation for a statewide Hand Hygiene Campaign. Those common elements provide important baseline information necessary to establish performance improvement targets. As evidenced by the WHO “Five Moments” approach, there are multiple opportunities for hand hygiene and the Advisory Committee encourages hospitals to promote hand hygiene comprehensively and to observe compliance to the greatest extent feasible. Nevertheless, given the urgent need to initiate a statewide Hand Hygiene Campaign in the fall, the Advisory Committee recommends a core minimum data set to monitor compliance that includes data on adherence to hand hygiene after a health care worker has contact with a patient or inanimate objects in the immediate vicinity of the patient. Monitoring adherence to hand hygiene after patient care is a component of the Center for Disease Control and Prevention’s National Healthcare Safety Network (NHSN).<sup>6</sup> The NHSN has been adopted by the Maryland Health Care Commission for public reporting of selected data on healthcare-associated infections, including central line-associated blood stream infections (CLABSI).<sup>7</sup> The core minimum data set to measure compliance should also include observations for major categories of health care workers involved in patient care. These observations should occur on inpatient units, including intensive care units, and in the emergency department. After initial experience, consideration should be given to expanding the core data set to include observations before patient care.

#### **Data Collection and Implementation**

**Recommendation 6. The Healthcare-Associated Infections Advisory Committee and its Hand Hygiene and Prevention Subcommittee should work with the Maryland Patient Safety Center (MPSC) to implement a statewide Hand Hygiene Campaign. The MPSC: should identify a limited number (e.g., 2-3) of existing tools that could be used to support a statewide hand hygiene campaign; develop a common approach to calculate adherence rates that provides comparable data across hospitals; define the minimum number of inpatient units to be reported by**

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<sup>6</sup> “Monitoring Adherence to Hand Hygiene” is an optional reporting feature regarding Prevention Process Measures Surveillance in the Multidrug-resistant Organism (MDRO) and *Clostridium difficile*-Associated Disease (CDAD) Module. The NHSN Manual. Patient Safety Component. December 16, 2008, pages 11-12.

<sup>7</sup> The NHSN system will also be used by Maryland to collect data on selected Surgical Site Infections (SSI). A proposal to initiate data collection for hip replacement, knee replacement and coronary artery bypass graft surgery SSIs effective January 1, 2010 has been posted for comment on the MHCC website.



***each hospital; and, develop a training program to support the collection of valid hand hygiene compliance data.***

The Maryland Patient Safety Center (MPSC) has played an important role in statewide HAI prevention initiatives in recent years. The Commission established the MPSC, which is a joint endeavor of the Maryland Hospital Association and the Delmarva Foundation, in January 2004. The Center was subsequently re-designated by MHCC as the State's patient safety center for an additional five years—through 2014. The MPSC has undertaken a number of collaboratives designed to address HAI. In 2005, MPSC sponsored an ICU Safety and Culture Collaborative aimed at eliminating preventable death and illness associated with healthcare-associated blood stream infections and pneumonia in patients on ventilators. In 2008-9, MPSC expanded the use of Positive Deviance (PD) and CDC-defined standardized outcomes measurement to decrease the number of people infected with MRSA as a result of their interactions with participating healthcare facilities and to expand boundaries of infection prevention responsibility to include every profession and vocation within our targeted healthcare settings. The MPSC, which is represented on the HAI Advisory Committee, should serve as the lead agency in implementing a statewide Hand Hygiene Campaign.

The urgent need to implement a statewide Hand Hygiene Campaign this fall to combat novel H1N1 influenza combined with the several strong hand hygiene monitoring tools currently in use in Maryland suggests that initial work should focus on identifying 2-3 existing tools that could be used on a statewide basis. This approach has the advantage of building on the strength of existing work to improve hand hygiene. At the same time, there is a need to develop a common approach to calculate adherence rates that provides comparable data across hospitals; define the minimum number of required inpatient units; and, develop a training program to support the collection of valid hand hygiene compliance data.

**Appendix A:**  
**Letter from Secretary Colmers to HAI**  
**Advisory Committee Members**



STATE OF MARYLAND  
**DHMH**

Maryland Department of Health and Mental Hygiene  
201 W. Preston Street • Baltimore, Maryland 21201

Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – John M. Colmers, Secretary

July 29, 2009

Letter to HAI Advisory  
Committee Members

I am writing to you as a member of the Maryland Health Care Commission's Healthcare-Associated Infections Advisory Committee to seek your assistance in implementing a key recommendation adopted by the Maryland Health Quality and Cost Council. At its June 10 meeting, the Council adopted a recommendation from its Evidence-Based Medicine Work Group calling for the implementation of a statewide Hand Hygiene campaign. The President of the Maryland Hospital Association, Ms. Carmella Coyle, has agreed to support this project.

The Council members felt the most expeditious way to develop a high caliber Hand Hygiene campaign was to obtain consultation from the group of experts already in place: the Maryland Health Care Commission's Healthcare Associated Infections Advisory Committee. I would like to ask you to advise the Lt. Governor and myself on the guiding principles, methodology, and data collection for a statewide hospital hand hygiene campaign to be implemented this fall.

Because I believe we may be facing a public health emergency this fall, I would like to receive your recommendations by August 31<sup>st</sup>. The Hand Hygiene initiative, which was originally conceived as the Work Group's most immediate focus, has now become urgent due to the threat of swine-origin H1N1 influenza. Our next Council meeting is September 25, 2009. I would like to announce a plan to implement this initiative on that date.

Thank you for your help with this important project. I look forward to your input. If you have any question about this project, please feel free to call Mary Mussman, MD, MPH, at 410-767-5468, or email at [mmussman@dhmh.state.md.us](mailto:mmussman@dhmh.state.md.us).

Sincerely,

John Colmers, Secretary, Maryland Department of Health and Mental Hygiene  
Vice Chair, Maryland Health Quality and Cost Council

cc: Lt. Governor Anthony Brown  
Chair, Maryland Health Quality and Cost Council

Toll Free 1-877-4MD-DHMH • TTY for Disabled – Maryland Relay Service 1-800-735-2258  
Web Site: [www.dhmb.state.md.us](http://www.dhmb.state.md.us)



**Appendix B:**  
**Survey of Maryland Hospital Hand Hygiene Monitoring**

**Summary of Responses to the  
Survey of Maryland Hospital Hand Hygiene Monitoring  
(Received as of 8.26.09)**

Hospitals Reporting: 32

- Baltimore Washington Medical Center
- Bon Secours Hospital
- Calvert Memorial Hospital
- Carroll Hospital Center
- Chester River Hospital Center
- Doctors Community Hospital
- Dorchester General Hospital
- Fort Washington Medical Center
- Franklin Square Hospital
- Frederick Memorial Hospital
- Good Samaritan Hospital
- Greater Baltimore Medical Center
- Harbor Hospital
- Harford Memorial
- Holy Cross Hospital of Silver Spring
- Johns Hopkins Hospital
- Maryland General Hospital
- Memorial Hospital and Medical Center of Cumberland
- Memorial Hospital at Easton
- Mercy Medical Center
- Montgomery General Hospital
- Peninsula Regional Medical Center
- Saint Agnes Hospital
- Saint Joseph Medical Center
- Saint Mary's Hospital
- Shady Grove Adventist Hospital
- Sinai Hospital of Baltimore
- Suburban Hospital
- Union Memorial Hospital
- University of Maryland Hospital
- Upper Chesapeake Medical Center
- Washington Adventist Hospital

# Survey of Maryland Hospital Hand Hygiene Monitoring

## Introduction

The Commission's Healthcare-Associated Infections Advisory Committee is working with the Governor's Health Quality and Cost Council to implement a statewide hand hygiene campaign in the Fall. Earlier this year, the Commission polled Maryland hospitals to determine the number of hospitals that currently have a hand hygiene initiative underway or have future plans to implement a hand hygiene initiative. As a follow-up to that poll, the Commission requests your assistance in completing this *Survey of Maryland Hospital Hand Hygiene Monitoring* for your hospital. The information collected in the survey, which covers key aspects of hand hygiene data elements and measurement, will be used by the Advisory Committee and Council in planning a future statewide hand hygiene initiative. We would appreciate your response to the survey by **Friday, August 7, 2009**.

## Hospital and Contact Information

Hospital Name

Date of Survey Completion

Name of Person Completing the Survey

Title of Person Completing the Survey

Telephone Number

## Measurement of Hand Hygiene Compliance

1. Does your hospital use a data collection tool to monitor hand hygiene compliance?

- ☐ Yes
- ☐ No
- ☐ Other (Please specify)

If you answer NO, please Exit the survey. If YES, please answer questions 2-7.

2. In monitoring hand hygiene compliance at your hospital, which opportunities for hand hygiene do you measure? (Please check all that apply)

- ☐ Entry into Patient Environment
- ☐ Exit from Patient Environment
- ☐ Before Patient Contact
- ☐ Before Aseptic Task
- ☐ After Body Fluid Exposure Risk
- ☐ After Patient Contact
- ☐ After Contact with Patient Surroundings
- ☐ During Patient Care
- ☐ Other (Please specify)

3. What aspects of hand hygiene are measured? (Please check all that apply)

- ☐ Observed Cleaning Hands (Yes/No)
- ☐ Type of Product Used (Alcohol-based rub; soap and water)
- ☐ Thoroughness of Cleaning (Appropriate amount of product, proper amount of time)
- ☐ Glove Use (Appropriate use, proper removal)
- ☐ Other (Please specify)

4. On the Hand Hygiene Monitoring Tool used by your hospital, what categories of Health Care Workers and other persons are observed? (Please check all that apply)

☐ Nurses  
☐ Physicians ( Attending Physicians, Fellows, Residents, and Interns)  
☐ Environmental Services  
☐ Visitors/patient family Members  
☐ Other (Please specify: )

5. For all units within the hospital that are regularly monitored with the Hand Hygiene Monitoring Tool, please specify the frequency of monitoring.

<u>Unit</u>	<u>Frequency of Monitoring</u>			
	<u>Weekly</u>	<u>Monthly</u>	<u>Quarterly</u>	<u>Periodic</u>
Inpatient Units				
Newborn Nursery				
Intensive Care Units				
Neonatal Intensive Care Units				
Emergency Department				
Ambulatory Surgery				
Outpatient Clinics				
Other (Please specify: )				

6. For units regularly monitored, what is the recommended minimum number of observations used by your hospital?

Observations

Measurement Time Period:

☐ Weekly  
☐ Monthly  
☐ Quarterly  
☐ Other (Please specify: )

7. What types of staff conduct hand hygiene observations at your hospital? (Please check all that apply)

☐ Infection Preventionists  
☐ Other Infection Prevention Staff  
☐ Other Hospital Staff  
☐ Patients  
☐ Secret Shoppers  
☐ Other (Please specify: )