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COMMITTEE ON OVERSIGHT AND GOVERNMENT REFORM
STAFF REPORT
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SURVEY OF STATE HOSPITAL ASSOCIATIONS: PRACTICES TO PREVENT HOSPITAL-ASSOCIATED BLOODSTREAM INFECTIONS

CHAIRMAN HENRY A. WAXMAN

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EXECUTIVE SUMMARY

According to the Centers for Disease Control and Prevention (CDC), hospital-associated infections are one of the top ten causes of death in this country. CDC researchers estimated that in 2002 there were approximately 1.7 million hospital-associated infections that resulted in approximately 99,000 deaths, caused substantial morbidity and suffering, and cost our nation billions of dollars**.** Most of the costs of these infections are borne by private insurers, Medicare and Medicaid, and patients and their families.

There are simple proven steps that can be taken to reduce one of the primary causes of hospital-associated infections, "central-line-associated bloodstream infections" (CLABSIs). These infections can result when large catheters inserted into veins in hospitalized patients become infected. Recent studies by Johns Hopkins University and the Michigan Hospital Association show that CLABSIs are almost entirely preventable if state hospital associations implement programs to promote preventative measures.

At the request of Chairman Henry Waxman, the Committee majority staff surveyed state hospital associations to assess the incidence of CLABSIs and efforts by state hospital associations to reduce the rate of CLABSIs. This report summarizes the results of the survey. It finds that despite strong evidence of effectiveness, only 14 state hospital associations reported adopting or planning to adopt the program to reduce CLABSIs used by the Michigan Hospital Association and Johns Hopkins University (the MHA/JHU program). These states are California, Michigan, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, and West Virginia.

The report also finds:

- **Only eight state hospital associations gather comprehensive data on CLABSI rates.** Surveillance is a key first step to any public health intervention and a major component of the proven intervention in Michigan. Without knowledge of the statewide rates, it is difficult for a hospital association to know the extent of a CLABSI problem or to identify institutions that need to take additional preventative measures. The eight state hospital associations which were able to provide the median and average rates for CLABSIs in the CDC standardized format are Michigan, Missouri, Nebraska, New Hampshire, South Carolina, Tennessee, Vermont, and Virginia. Iowa, Maine, and Rhode Island provided average rates but not the median. Another 12 state hospital associations report that they have begun collection of these data.

- **Every state hospital association is engaged in other activities to address hospital-associated infections.** Every state hospital association reported that it was engaged in some activities to reduce hospital-associated infections, such as efforts to reduce ventilator-associated pneumonias and surgical site skin infections.

- **If all state hospital associations were to implement the MHA/JHU program and achieve the same results, more than 15,000 lives and over $1 billion dollars could be saved annually.** Thirty-four state hospital associations did not report steps to implement the proven MHA/JHU program for reducing CLABSIs. If the remaining state hospital associations were to adopt the MHA/JHU program, as many as 15,680 additional lives and as much as $1.3 billion could be saved each year.

I. INTRODUCTION

According to the Centers for Disease Control and Prevention (CDC) hospital-associated infections are one of the top ten causes of death in this country.[1] CDC researchers estimated that in 2002 there were approximately 1.7 million hospital-associated infections that resulted in 98,987 deaths, caused substantial morbidity and suffering, and cost our nation billions of dollars.[2] Most of the costs of these infections are borne by private insurers, Medicare and Medicaid, and patients and their families.

One of the leading causes of these infections is "central-line-associated bloodstream infections" (CLABSIs). Hospitalized patients, especially those in intensive care units (ICUs), sometimes require the insertion of large catheters, known as central lines, into veins. These catheters can become infected and lead to a CLABSI. According to the CDC, there were over 248,000 hospital-associated bloodstream infections in 2002, which caused over 30,000 deaths.[3]

CLABSIs are almost entirely preventable if hospitals follow certain procedures. The current CDC guidelines for preventing catheter-related infections include 111 practice recommendations, of which 39 are "strongly recommended."[4] Dr. Peter Pronovost, a researcher at Johns Hopkins University School of Medicine, has identified five simple and inexpensive practices that reduce catheter infections. These five steps are:

1. Handwashing;
2. Full draping of the patient;
3. Cleaning the skin with proven cleansers;
4. Avoiding catheters in the groin if possible; and
5. Removing catheters as soon as possible.[5]

These steps are well-established practices that physicians and hospital infection control units should be encouraging. In his research, however, Dr. Pronovost found that doctors were skipping steps more than a third of the time.[6] To promote greater compliance, he and his

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[1] Government Accountability Office, Health-care-Associated Infections in Hospitals: Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections (Mar. 2008) (GAO/08-283).

[2] Klevens et al., *Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002,* Public Health Reports, at 160-166 (Mar. - Apr. 2007). According to a CDC review of the literature, published estimates for the annual cost of health care-associated infections to the public and private sectors are as high as $6.7 billion. Unpublished estimates by CDC economists, however, suggest that health care-associated infections add as much as $20 billion dollars in costs each year. E-mail from CDC Washington Program Analyst to Majority Staff, House Oversight and Government Reform Committee (Apr. 11, 2008).

[3] Klevens et al., *Estimating Health Care-Associated Infections and Deaths in U.S. Hospitals, 2002,* Public Health Reports, at 160-166 (Mar. - Apr. 2007).

[4] Government Accountability Office, Healthcare-Associated Infections in Hospitals: Leadership Needed from HHS to Prioritize Prevention Practices and Improve Data on These Infections (Mar. 2008) (GAO/08-283).

[5] Pronovost et al., An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU, New England Journal of Medicine (Dec. 28, 2006).

[6] *The Checklist*, The New Yorker (Dec. 10, 2007).

colleagues at Johns Hopkins University developed a program for state hospital associations to ensure that these five steps were followed every time. The program consisted of:

- Educating clinicians;
- Urging hospitals to create and use a "central line cart" so all supplies would be in one accessible location;
- Creating a checklist to ensure that all five steps were completed each time;
- Empowering hospital staffs to stop procedures if the checklist is not being followed;
- Ensuring that data are reported by hospitals according to the national CDC standards; and
- Providing monthly and quarterly feedback to hospitals on the rates of infections.[7]

In 2003, the Michigan Hospital Association (MHA) adopted the Johns Hopkins University program statewide. Hospital participants in this statewide program committed to participating in conference calls and meetings where team members share what they learned with other teams. The project also provided the hospitals with data support and reports.[8]

Within 18 months, the rate of CLABSIs in Michigan intensive care units dropped by 66%.[9] The typical hospital (the median performers) virtually eliminated these infections and outperformed more than 90% of hospitals nationwide.[10] The MHA estimates that during this 18-month project, they saved more than 1,729 lives and over $246 million, before taking into account the costs of administering the program.[11]

II. PURPOSE AND METHODOLOGY

On April 16, 2008, the Committee on Oversight and Government Reform held a hearing on hospital-associated infections. The Committee heard testimony from the Government Accountability Office (GAO) that leadership from the Secretary of Health and Human Services

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[7] Pronovost et al., An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU, New England Journal of Medicine (Dec. 28, 2006).

[8] MHA Keystone Center for Patient Safety and Quality, *Keystone ICU* (online at www.mhakeystonecenter.org/icu_overview.htm) (accessed Sept. 3, 2008).

[9] Pronovost et al., An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU, New England Journal of Medicine (Dec. 28, 2006).

[10] *The Checklist*, The New Yorker (Dec. 10, 2007).

[11] MHA Keystone Center for Patient Safety and Quality, *Keystone ICU* (online at www.mhakeystonecenter.org/icu_overview.htm) (accessed Sept. 3, 2008). According to MHA, "These impact estimates are based on projections from the Johns Hopkins Opportunity Calculator. This model applies estimates of the prevention of deaths and decreased hospital stay as extrapolated from published empirical studies. The estimated dollar savings is based on an average cost of a hospital day and an ICU day in Michigan from a sample of Michigan hospitals." This estimate does not account for increased administrative costs. According to testimony before the Committee on Oversight by John Labriola, the original grant from the Agency for Healthcare Research and Quality for the MHA/JHU program was $1 million; the hospitals also "contributed a match of in-kind contribution of staff time." House Committee on Oversight and Government Reform, *Healthcare-Associated Infections: A Preventable Epidemic*, 110th Cong. (Apr. 16, 2008).

in addressing hospital-associated infections is "currently lacking."[12] GAO recommended that the Department of Health and Human Services (HHS) identify priorities for practice recommendations. GAO also noted that multiple data systems limit the ability of the Department to track this problem. A representative of HHS acknowledged at the hearing that "more work and leadership is needed to enhance patient safety in this regard."[13]

Following the hearing, Chairman Henry Waxman asked the Committee majority staff to survey state hospital associations to assess the incidence of CLABSIs and the implementation of the preventative measures developed by the Michigan Hospital Association and Johns Hopkins University (the MHA/JHU program).

On May 6, 2008, the Committee majority staff sent a survey to the hospital association of every state and the District of Columbia. This survey is the first survey of state hospital association efforts to reduce the rate of CLABSIs and the first national effort to disclose the rates of CLABSIs in the states that gather data. A copy of the survey letter appears at Appendix A.

The survey asked three questions:

1. If known, what are the median and overall rates of central line-associated bloodstream infections in the intensive care units in hospitals in your state, using standard definitions of CLABSIs as provided by the Centers for Disease Control and Prevention for the purpose of the National Healthcare Safety Network?[14]

2. If the rates are unknown or if the median rate is above zero, do you have plans to replicate the Michigan Hospital Association program in your state? If so, when do you anticipate initiating the program?

3. What other activities are your member hospitals taking to address healthcare-associated infections? Which infections are you targeting? What is your evidence of success?

Responses were categorized according to the definitions included in Appendix B and were summarized in a draft table. The Committee majority staff e-mailed this draft summary table, along with the definitions document, to each state hospital association. The associations were given the opportunity to identify any errors and to supplement their initial responses with additional information.

All 50 state hospital associations responded to the survey; only the association representing hospitals in the District of Columbia failed to provide any information. The full text of each response is posted on the Committee website at www.oversight.house.gov. Nineteen states responded to the opportunity to modify or confirm the draft summary table. Because the Committee did not independently verify the responses, every change requested by a state hospital

[12] House Committee on Oversight and Government Reform, *Healthcare-Associated Infections: A Preventable Epidemic*, 110th Cong. (Apr. 16, 2008).

[13] *Id.*

[14] CDC, National Healthcare Safety Network Manual Patient Safety Component Protocol, at 6 (Jan. 2008).

association was granted, except in two cases.[15] Appendix C contains a table summarizing the final results of the survey.

III. RESULTS

A. Current Efforts to Collect CLABSI Data

The Committee requested the rates for CLABSIs using standard CDC definitions. These rates are reported as the number of central line infections for every 1,000 central line-days. Each "central line-day" represents a patient with a central line in place for a day. The Committee requested both the average rate for the state (the total number of infections in the state divided by the total number of central line days) and the median rate (the rate for the hospital at the 50th percentile in the state).

The average rate is important because it indicates how many patients are experiencing CLABSIs. The median rate is important because it provides information on the success of the typical hospital in the state and is a good marker for the success in the broad outreach efforts across the state. It is possible for a state with a median of zero to still have a relatively high average rate if a few hospitals have a significant number of infections. Such a situation would suggest the need to focus resources on a few problem locations only.

Only eight state hospital associations were able to provide the average and median rates for CLABSIs in the CDC standardized format. Another three states provided their average rate only. These 11 states, and their reported rates for central line infections per 1000 central line-days, are:

- Iowa: average rate of 2.1
- Maine: average rate of 2.3
- Michigan: average rate of 1.4, median rate of 0.0
- Missouri: average rate of 2.3, median rate of 1.4
- Nebraska: average rate of 1.5, median rate of 0.0
- New Hampshire: average rate of 2.4, median rate of 0.0
- Rhode Island: average rate of 1.8
- South Carolina: average rate of 2.6, median rate of 1.5
- Tennessee: average rate of 1.7, median rate of 0.0
- Vermont: average rate of 2.4 for hospitals with a medical ICU, average rate of 2.0 for hospitals with a surgical ICU, average rate of 0.0 for hospitals with combined medical/surgical ICUs, median rate for all hospitals of 0.0
- Virginia: average rate of 2.1, median rate of 1.4

[15] Two state hospital associations requested that the response under the column entitled "Plans for Michigan Hospital Association Program?" be changed to "yes." However, neither of these state hospital associations reported plans for a "broad statewide effort to monitor or track CLABSI rates using CDC definitions in a majority of ICUs," one of two conditions necessary to be categorized as "yes" for this column.

Because the Committee's survey did not specify timeframes for reporting, the rates reported by state hospital associations are not necessarily for the same timeframe. Many reported data for the most recent year available; others reported association rates for a few months or did not specify the time period. Of the states that reported data consistent with CDC definitions, only Vermont had a lower average rate than the rates achieved by the MHA/JHU program.

Twelve state hospital associations reported that data collection has begun but that the rates requested were not yet available. The remaining 27 state hospital associations reported that they do not collect CLABSI data or did not respond to this question. Statewide surveillance is a major component of the MHA/JHU program. Without information about facility-specific and statewide rates, hospital administrators and ICU staff have little ability to know whether they have a CLABSI problem and, if so, its scope. They cannot know when continuing infections necessitate a change in practices at their facilities, and they cannot share data at the state level to facilitate dissemination of the most effective practices.

B. Adoption of the MHA/JHU Program

Despite evidence of the effectiveness of the MHA/JHU program in saving lives and reducing costs, only 13 state hospital associations reported adopting or planning to adopt a similar program to reduce CLABSIs. These states are California, Missouri, New Jersey, New York, North Carolina, Ohio, Oklahoma, Rhode Island, South Carolina, Tennessee, Vermont, Virginia, and West Virginia. Including Michigan, these 14 hospital associations represent states that include 42% percent of the U.S. population.[16]

Conversely, 34 states — representing 56% of the U.S. population — have not yet fully adopted the proven MHA/JHU program.[17] In some of these states, individual hospitals may have implemented portions of the MHA/JHU program, and patients in these hospitals would benefit from such efforts. The full MHA/JHU program, however, includes collaboration by hospitals across the state, data sharing, and accountability based on statewide surveillance. Full statewide implementation would ensure that more hospitals participated and would also allow for activities which were central to the success of the MHA/JHU program.

C. Other Activities to Address Hospital-Associated Infections

Every state hospital association reported that it was engaged in other activities to reduce hospital-associated infections. These activities were focused not just on CLABSIs but on other infections as well. Other causes of hospital-associated infections include ventilator-associated pneumonias, surgical site skin infections, and catheter-related urinary tract infections.

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[16] Kaiser Family Foundation, State Health Facts, Total Number of Residents, 2005-2006 (online at www.statehealthfacts.org/comparemaptable.jsp?ind=1&cat=1) (accessed July 25, 2008).

[17] States reporting a median rate of zero for CLABSIs (Nebraska, New Hampshire, Tennessee, and Vermont) were exempt from this question. Two states provided information for this question, but the status of the two remaining states (Nebraska and New Hampshire) is unknown, so these states are not included in this count. See Appendix C.

Most hospital associations cited work with the Institute for Healthcare Improvement (IHI), a nonprofit organization that helps hospitals and other health care systems implement ideas for improving the quality of care.[18] The IHI works with individual hospitals across the country and only recently began to develop regional group collaborative approaches. While the work of the IHI has created a foundation for quality improvement efforts, the specific impact of its initiatives is not yet demonstrated.

Some regions within states have also initiated collaboratives on quality. For example, the Beacon Collaborative in Northern California and the Greater New York Hospital Association of New York City have both engaged in collaborative efforts to reduce CLABSIs. Full data were not provided, but the median rate for the Beacon Collaborative was zero infections after 21 months of the collaborative effort, while the average rate for the Greater New York Hospital Association collaborative was 2.3.

D. Public Health Impacts

In a peer-reviewed journal article in the New England Journal of Medicine, Dr. Pronovost and his co-authors estimated that if the MHA/JHU program were in effect in every state, as many as 28,000 lives and $2.3 billion could be saved each year.[19] At that time, no state aside from Michigan had implemented the MHA/JHU program.

According to the Committee's survey, 14 state hospital associations report adopting or planning to adopt this proven MHA/JHU program for reducing CLABSIs. Patients in these 14 states can be expected to benefit from the MHA/JHU program. Hospital patients in the remaining 34 states, however, will not benefit from the lessons learned in the MHA/JHU program unless further action is taken.[20]

The majority staff asked Dr. Pronovost to develop a methodology for estimating the impact of further dissemination of the MHA/JHU program for reducing CLABSIs across the remaining 34 states.[21] Dr. Pronovost reported that the original estimate was still close to accurate, but a more conservative estimate could be obtained by proportionally reducing the original nationwide estimate to account for the fact that 14 states may have already received the benefits of the intervention. As recommended by Dr. Pronovost, the staff adjusted the national estimates in the New England Journal of Medicine based on the proportion of people that live in the remaining 34 states, which contain 56% of the United States population.

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[18] Institute for Healthcare Improvement Home Page (online at www.ihi.org) (accessed Sept. 7, 2008).

[19] Pronovost et al., An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU, New England Journal of Medicine (Dec. 28, 2006).

[20] Two state hospital associations requested that the response under the column entitled "Plans for Michigan Hospital Association Program?" be changed to "yes." However, neither of these state hospital associations reported plans for a "broad statewide effort to monitor or track CLABSI rates using CDC definitions in a majority of ICUs," one of two conditions necessary to be categorized as "yes" for this column.

[21] E-mail from Dr. Peter Pronovost to Majority Staff, House Committee on Oversight and Government Reform (July 26, 2008).

This resulted in an estimate that 15,680 lives and $1.3 billion in health-care costs could be saved annually by nationwide implementation of the MHA/JHU program.

E. Cost of MHA/JHU Intervention

One barrier to further dissemination of the MHA/JHU program appears to be funding. The MHA/JHU program received $1 million from the Agency for Healthcare Research and Quality over a period of two years. This was the total federal funding supplied to the project and was shared between the MHA and Johns Hopkins University.[22] Many of the state hospital associations expressed interest in the MHA/JHU program but cited a lack of federal or private resources needed to operate a similar program. Some specifically called on federal agencies to provide seed funding to enable similar programs to start up in additional states.

IV. CONCLUSION

The MHA/JHU project demonstrates that simple interventions initiated by state hospital associations can virtually eliminate a leading cause of hospital-associated infections. Despite the effectiveness of the MHA/JHU program, only 14 state hospital associations are currently implementing the program or planning to do so. An expanded nationwide intervention by state hospital associations would require a minimal investment of resources, but has the potential to save thousands of lives and over $1 billion in medical expenses.

[22] E-mail from Sam Watson, Executive Director, Michigan Hospital Association Keystone Center, to Majority Staff, House Oversight and Government Reform Committee (July 17, 2008). Private funding sources also included Blue Cross/Blue Shield and the hospitals themselves.

APPENDIX A: SAMPLE STATE LETTER

May 6, 2008

Dear

The Committee on Oversight and Government Reform has begun an investigation into healthcare-associated infections (HAI), an epidemic that causes an estimated 100,000 deaths each year in the United States. I am writing to request your assistance to help address this epidemic and to learn more about the efforts state hospital associations are taking in this effort.

At an April 16, 2008, hearing on this subject, the Committee heard testimony about the successful initiative by the Michigan Hospital Association that has been recognized in the *New England Journal of Medicine*.[1] Under this project, the average hospital in the state has virtually eliminated one form of HAI known as a central-line-associated bloodstream infection (CLABSI). Overall, the rate of such infections fell by 66% between March 2004 and September 2005.[2] According to Dr. Peter Pronovost of Johns Hopkins University, the architect of the project, this effort saved approximately 1,800 lives and $180 million.

At the hearing the Committee also released a report by the Government Accountability Office (GAO) that focused on the efforts by the Department of Health and Human Services to reduce healthcare-associated infections. According to GAO, without stronger leadership, the

[1] Pronovost et al, *An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU,* New England Journal of Medicine (Dec. 28, 2006).

[2] Pronovost et al, *An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU,* New England Journal of Medicine (Dec. 28, 2006).

department "is unlikely to be able to effectively leverage its various methods to have a significant effect on the suffering and death caused by HAIs."[3]

The Michigan Hospital Association program indicates that even in the absence of federal leadership, efforts by state hospital associations can lead to a reduction in health care spending and lives saved. The infrastructure and successful collaborations created by such an effort can be helpful in any national effort to address HAIs.

I respectfully request that you provide the Committee with the following information:

1. If known, what are the median and overall rates of central line-associated bloodstream infections in the intensive care units in hospitals in your state, using standard definitions of CLABSIs as provided by the Centers for Disease Control (CDC) and prevention for the purpose of the National Healthcare Safety Network?[4]

2. If the rates are unknown or if the median rate is above zero, do you have plans to replicate the Michigan Hospital Association program in your state? If so, when do you anticipate initiating the program?

3. What other activities are your member hospitals taking to address healthcare-associated infections? Which infections are you targeting? What is your evidence of success?

The Committee on Oversight and Government Reform is the principal oversight committee in the House of Representatives and has broad oversight jurisdiction as set forth in House Rule X. An attachment to this letter provides additional information on how to respond to the Committee's request.

[3] U.S. Government Accountability Office, *Health-Care-Associated Infections in Hospitals: Leadership Needed from HHS to Prioritize Prevention Activities and Improve Data on these Infections*, 40 (March, 2008) (GAO-08-283).

[4] CDC, *National Healthcare Safety Network Manual Patient Safety Component Protocol, 6* (Jan. 2008) (online at: http://www.cdc.gov/ncidod/dhqp/pdf/nhsn/NHSN_Manual_PatientSafetyProtocol_CURRENT.pdf).

Please respond to this request by May 30, 2008. Please send a copy of your response to the majority office at 2157 Rayburn House Office Building, Washington, DC 20515 and a copy to the minority office at B350A Rayburn House Office Building, Washington, DC 20515. Please also submit a response via email to Sarah.Despres@mail.house.gov. If you have any questions, please contact Dr. Stephen Cha or Sarah Despres of the Committee staff at (202) 225-5056. Thank you for your cooperation in this matter.

Sincerely,

Henry A. Waxman
Chairman

cc: Tom Davis
Ranking Minority Member

APPENDIX B: DEFINITIONS FOR RESPONSE TERMS

Column I/II: Median and overall average rate of CLABSI (per 1000 catheter days)

These columns summarize answers to the question: "If known, what are the median and overall rates of central line-associated bloodstream infections in the intensive care units in hospitals in your state, using standard definitions of CLABSIs as provided by the Centers for Disease Control and Prevention for the purpose of the National Healthcare Safety Network."

Responses in these columns were classified as follows:

- **Not Provided:** Indicates that responsive information was not provided. If the state provided data, but the data were not consistent with CDC definitions, the response was classified as "not provided" and denoted with an asterisk.
- **Data Not Collected By Respondent:** Data on CLABSI rates in ICUs are not currently being collected by the respondent for a majority of the ICUs in a state. This includes states in which data is available at a city or individual hospital level, but rate information is not available for the majority of the ICUs in the state.
- **Data Collection Has Begun:** Indicates that statewide data collection has begun for CLABSI rates in ICUs using CDC definitions, but data are not yet available.
- Median and overall "average" rates were reported if representative of a majority of the ICUs or ICU beds in the state.

Column III: Plans for Michigan Hospital Association Program?

This column summarizes answers to the question: "If rates are unknown or if the median rate is above zero, do you have plans to replicate the Michigan Hospital Association program in your state? If so, when do you anticipate initiating the program?"

Responses were categorized as "yes" if **both** of the following conditions were met:

- The state has, or plans to have, a broad statewide effort to monitor and track CLABSI rates using CDC definitions in a majority of ICUs, regardless of whether such rates are publicly reported; AND
- The state has, or plans to have, a broad statewide effort to implement in a majority of ICUs the evidence-based process-based recommendations similar to that described in Pronovost et al., *An Intervention to Decrease Catheter-Related Bloodstream Infections in the ICU*, NEJM (Dec. 28, 2006).

Column IV: Other Activities to Address HAIs?

This column summarizes answers to the question: "What other activities are your member hospitals taking to address healthcare-associated infections? Which infections are you targeting? What is your evidence of success?

Responses were categorized as "yes" if the state reported other activities to address healthcare-associated infections.

APPENDIX C: STATE RESPONSES

State Name	Catheter infection rates provided by respondent?	Plans for Michigan Hospital Association Program?	Other Activities to Address HAIs?
Alabama	Not Provided	Not Provided	Yes
Alaska	Data Not Collected by Respondent	No	Yes
Arizona	Not Provided	No	Yes
Arkansas	Data Not Collected by Respondent	No	Yes
California	Data Collection Has Begun	**Yes**	Yes
Colorado	Data Collection Has Begun	Not Provided	Yes
Connecticut	Data Collection Has Begun	No	Yes
Delaware	Not Provided	Not Provided	Yes
District of Columbia	***Did Not Respond***	***Did Not Respond***	***Did Not Respond***
Florida	Data Not Collected by Respondent	No	Yes
Georgia	Data Not Collected by Respondent	No	Yes
Hawaii	Data Not Collected by Respondent	No	Yes
Idaho	Data Not Collected by Respondent	No	Yes
Illinois	Data Collection Has Begun	No	Yes
Indiana	Data Not Collected by Respondent	No	Yes
Iowa	**Average rate provided**	Not Provided	Yes
Kansas	Data Not Collected by Respondent	Not Provided	Yes
Kentucky	Data Not Collected by Respondent	No	Yes
Louisiana	Data Not Collected by Respondent	No	Yes
Maine	**Average rate provided**	No	Yes
Maryland	Not Provided	Not Provided	Yes
Massachusetts	Data Collection Has Begun	Not Provided	Yes
Michigan	**Median and average rates provided**	Not Applicable	Yes
Minnesota	Data Not Collected by Respondent	No	Yes
Mississippi	Data Not Collected by Respondent	No	Yes
Missouri	**Median and average rates provided**	**Yes**	Yes
Montana	Data Not Collected by Respondent	No	Yes
Nebraska	**Median and average rates provided**	Not Applicable**	Yes
Nevada	Not Provided*	No	Yes
New Hampshire	**Median and average rates provided**	Not Applicable**	Yes
New Jersey	Data Not Collected by Respondent	**Yes**	Yes
New Mexico	Data Not Collected by Respondent	No	Yes
New York	Data Collection Has Begun	**Yes**	Yes
North Carolina	Data Collection Has Begun	**Yes**	Yes
North Dakota	Data Not Collected by Respondent	No	Yes
Ohio	Data Not Collected by Respondent	**Yes**	Yes

Oklahoma	Data Collection Has Begun	**Yes**	Yes
Oregon	Data Not Collected by Respondent	No	Yes
Pennsylvania	Data Collection Has Begun	Not Provided	Yes
Rhode Island	**Average rate provided**	**Yes**	Yes
South Carolina	**Median and average rates provided**	**Yes**	Yes
South Dakota	Data Not Collected by Respondent	No	Yes
Tennessee	**Median and average rates provided**	**Yes****	Yes
Texas	Data Not Collected by Respondent	No	Yes
Utah	Data Collection Has Begun	Not Provided	Yes
Vermont	**Median and average rates provided**	**Yes****	Yes
Virginia	**Median and average rates provided**	**Yes**	Yes
Washington	Data Collection Has Begun	Not Provided	Yes
West Virginia	Data Collection Has Begun	**Yes**	Yes
Wisconsin	Data Not Collected by Respondent	Not Provided	Yes
Wyoming	Not Provided	Not Provided	Yes

* = Data were not provided in the manner requested by the Committee.
** = Because median rates were already zero, these states were exempted from answering this question. Any answers that were supplied by such states are reported.