

## PUBLIC REPORTING AND DISCLOSURE OF HAI RATES: POSITIVE IMPACT OR CONFUSION?

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Hosted by Dr. Walter Zingg  
Hôpitaux Universitaires de Genève

SUPPORT FOR THIS STUDY WAS PROVIDED BY A GRANT FROM THE ROBERT WOOD JOHNSON FOUNDATION'S PUBLIC HEALTH LAW RESEARCH PROGRAM.  
THE PRESENTERS HAVE NOTHING TO DISCLOSE.

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WHO Patient Safety Challenge Clean Care is Safer Care

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## OUTLINE

1. Background /Study Components
2. Infection Preventionist perspectives
3. Epidemiologist perspectives
4. State HAI Coordinator perspectives
5. Consumer websites usability
6. Consumer awareness, engagement, and intent

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## BACKGROUND

- Little is known about the extent to which the public actually knows about HAI information and if they use it.
- At the time of our study, 34 states have laws requiring hospitals to report HAI rates (shown in red).



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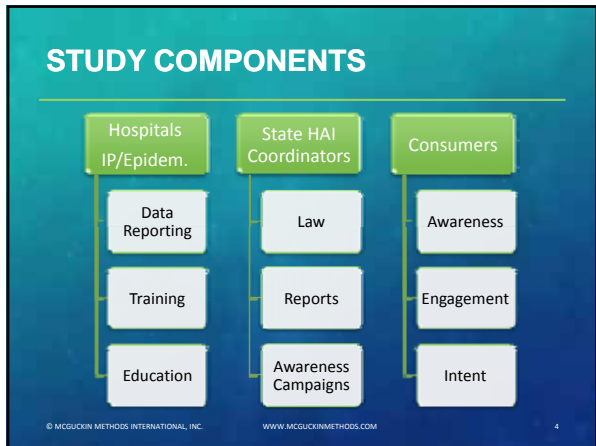
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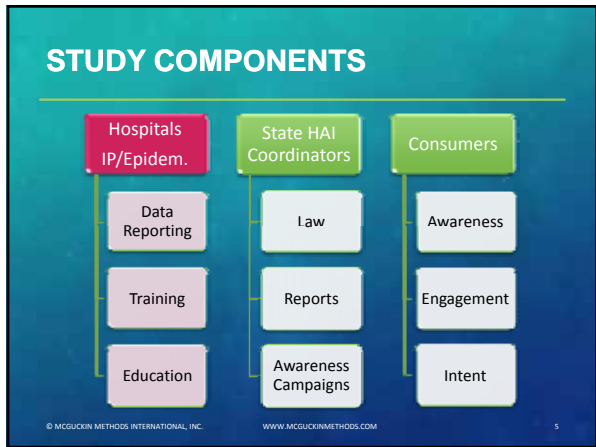
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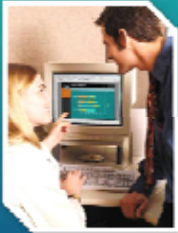
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### INFECTION PREVENTIONIST INTERVIEWS



**WHY:** - Key process stakeholders  
- State comparisons

**HOW:** - Phone interviews

**WHO:** - By Ms. Bunson, IP, CIC  
- APIC Chapter Presidents  
- MMI's IP Consortium

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## IP RESULTS

What is one word to describe how **your fellow IPs** in your state regard public reporting to consumers?

- Cumbersome
- Misunderstood
- Frustrating
- "Unvalidated"

Category	Percentage
Negative	68%
Positive	32%

- Good idea
- Transparency
- Quality-Improvement

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## IP RESULTS (CONT'D)

What is one word to describe how **consumers** in your state regard public reporting?

- Unused
- Misunderstood
- Oblivious
- Garbage!

Category	Percentage
Positive	16%
Negative	84%

- Usable
- Trustworthy

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## IP RESULTS (CONT'D)

If you were trying to improve consumer knowledge of HAI rates at hospitals, list 2 or 3 things you would do.

- Simplify
- Graphics not words
- TV
- Internet
- Facebook
- Hospital webs
- Doctors
- APIC consumer ed.

Category	Percentage
Response	50%
No Answer	50%

- Half respondents did not have any suggestions

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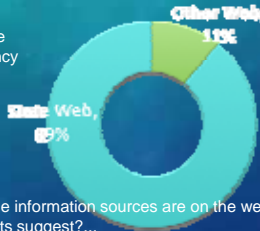
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## IP RESULTS (CONT'D)

If your state has mandatory public disclosure of HAI rates, where would a consumer get this information?

- Official State Health Agency Websites



- State Health Quality Commission Websites or the like.

IPs suggest the information sources are on the web. What do the Epidemiologists suggest?...

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## EPIDEMIOLOGIST SURVEY

- Partnered with SHEA Research Network
- Online survey
  - Healthcare worker use
  - Consumer understanding



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## EPIDEMIOLOGIST RESPONSES

- 165 invites to SRN members
- 53 responses from reporting states
  - 31%: 1-300 beds
  - 25%: 301-500 beds
  - 44%: 500+ beds
- April-May 2013

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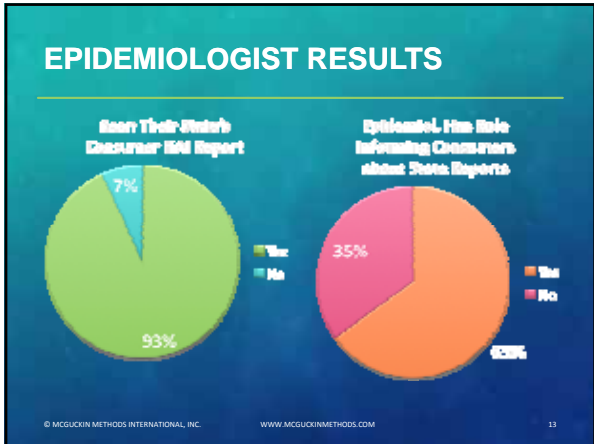
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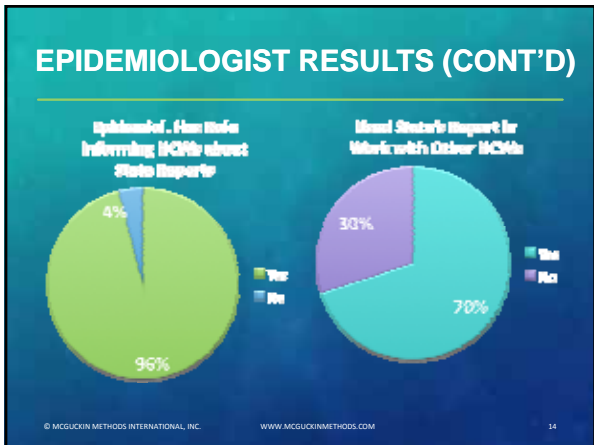
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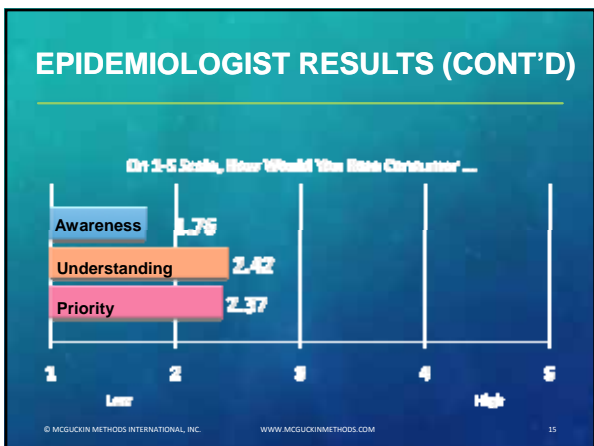
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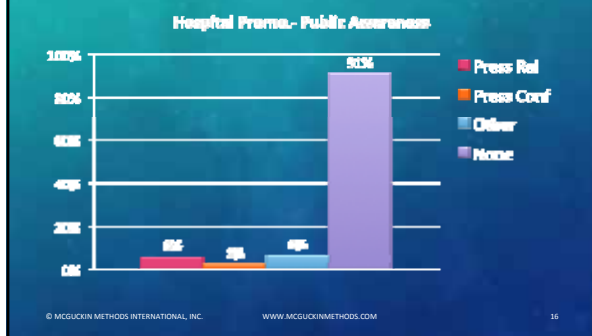
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## EPIDEMIOLOGIST RESULTS (CONT'D)




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## EPIDEMIOLOGIST TAKEAWAY

From which of the following sources can consumers learn about your facility's HAI rates?

Official state reports	85%
HospitalCompare website	74%
Hospital personnel	28%
Physician or other HCW	25%
Local News Source	17%
Hospital Website	15%
Don't know	4%

Remember earlier slide... IPs cited 100% web sources

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## EPIDEMIOLOGIST TAKEAWAY (CONT'D)

Which departments at your hospital are involved in providing information on HAI rates to patients?

Infection Prevention	81%
Quality Assurance	36%
Patient Safety	28%
Administration	23%
None	17%

Note: Final slide has verbatim improvements for awareness and understanding

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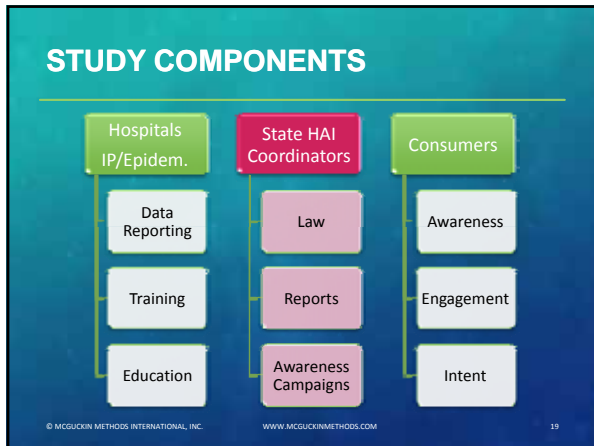
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- ## STATE HAI COORDINATOR INTERVIEWS
- 32 States have disclosed reports at time of study
  - Phone and Internet interviews, 28 states
    - Design and disclosure
    - Awareness promotions
    - Consumer feedback
  - 1 declined interview, 2 did not respond
    - Information used from websites
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## DATA ON STATE REPORTS

Prevalence Measure	Comparison Group	Standardized Ratio (95% CI)	Statistical Significance	Standardized Ratio (95% CI)	Statistical Significance	Clinical Significance (Relative to Reference)	Performance by Facility	Performance by State	Performance by Region
UTI	...	0.8	...	0.8	...	...	**	**	**
...	...	...	...	...	...	...	**	**	**
...	...	...	...	...	...	...	*	**	*

**Words/Numbers**

**Colors/Symbols**

**Graphs/Charts**

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## EXAMPLE 1

- Interactive website
- You choose the region within the state
- Rank by 1-3 stars
- Click on hospital name to get actual rate data

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- State web map
- Green = average HAI rates; Red = above average HAI rates
- Click to enlarge region
- Mouse-over for pop-up note on rate data

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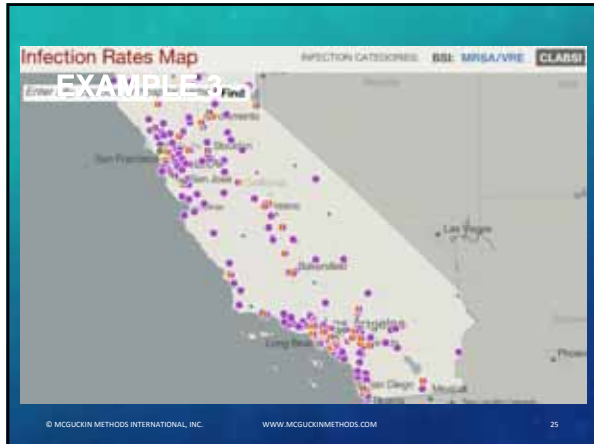
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## STATE RESULTS

Who determined format?

- 8 states used a template/model
- 15 cited state advisory committee
- 10 states used other states' reports

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## STATE RESULTS (CONT'D)

- 25 states have consumers on advisory board
  - 7 of those had laws requiring consumer participation
  - 9 Used consumers in report design
    - Regional panel for multistate
    - Multiple panels for different educ. levels

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## STATE RESULTS (CONT'D)

- Raising Public Awareness
  - 15 Press Release
  - 3 Press Conference
  - 4 Statewide Public Awareness Campaign
  - 4 Facebook, 3 Twitter, 1 RSS Feed

**We Want Your Feedback**  
 We are interested in improving our website and want your feedback so that we can provide you with quality information that is easy to access. Please take a few minutes to share your opinion about this site. Your responses will be kept strictly confidential.

[Return to the Website Survey](#)

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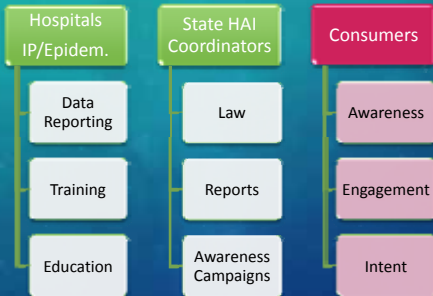
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## STUDY COMPONENTS




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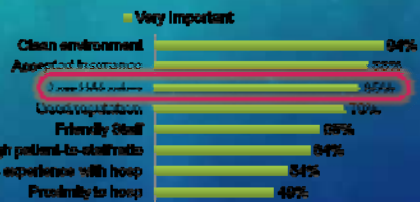
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## BACKGROUND: 2006 SURVEY OF CONSUMER ATTITUDES

1,000 respondents asked to rank each factor as "very, somewhat, or not important" when choosing a hospital



McGuckin M, Waterman R, Shubin A. Consumer attitudes about health care-acquired infections and hand hygiene. Am J Med Qual. 2006 Sep-Oct;21(5):342-6.

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## CURRENT CONSUMER SURVEY METHODS

- Non-incentive random phone survey of 3,000 consumers in 48 States/DC
- Time: Three waves, April – May 2012
- Age: 18 years and older
- Gender: 50/50 (m/f) response pool

Contracted with ORC/International

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## CONSUMER METHODS (CONT'D)

Design: 12 questions in three parts:

1. Demographics
2. Awareness of law and HAI reports
3. Decision-making and HAI data

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## CONSUMER METHODS (CONT'D)

### DATA ANALYSIS\*

- Standard socioeconomic/demographics and location (State)
- Sub-grouped by whether or not their state of residence had a publicly available.
- Awareness and engagement analyzed for respondents from states with HAI reporting,
- Intent to seek information for all respondents.

\* All p-values are for a Pearson chi-squared test for differences.

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## CONSUMER RESULTS

- 3,031 responses
  - 1895 from states where HAI data was disclosed to public by April 2012 (25 states, shown red)



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## CONSUMER RESULTS (CONT'D)

		Awareness	Engagement	Intention
Sex	Male	37%	10%	48%
	Female	42%	15%	55%
		Females more aware <sup>1</sup>	Females more engaged <sup>2</sup>	Females more intent <sup>3</sup>
Age	18-34	31%	8%	53%
	36-64	42%	14%	52%
	65+	38%	11%	52%
		Older more aware <sup>4</sup>	Older more engaged <sup>5</sup>	Not significant <sup>6</sup>

<sup>1</sup>P = 0.0248 <sup>2</sup>P=0.0011 <sup>3</sup>P=0.0002 <sup>4</sup>P = 0.0143 <sup>5</sup>P = 0.0183 <sup>6</sup>P = 0.8620

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## CONSUMER RESULTS (CONT'D)

		Awareness	Engagement	Intention
Educ	High Sch	32%	8%	58%
	College	40%	12%	50%
	Post Grad	47%	18%	47%
		More educ more aware <sup>1</sup>	More educ more engaged <sup>2</sup>	More educ less intent <sup>3</sup>
Inc	<\$25,000	30%	9%	60%
	\$25-59,999	39%	12%	55%
	\$60-99,999	41%	12%	48%
	\$100,000+	46%	16%	43%
		More income more aware <sup>4</sup>	Not significant <sup>5</sup>	More income less intent <sup>6</sup>

<sup>1</sup>P < 0.0001 <sup>2</sup>P < 0.0001 <sup>3</sup>P < 0.0001 <sup>4</sup>P = 0.0007 <sup>5</sup>P = 0.0928 <sup>6</sup>P < 0.0001

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## CONSUMER RESULTS (CONT'D)

		Awareness	Engagement	Intention
Prior infection (self or fam)	Yes	205 (48%)	96 (23%)	391 (59%)
	No	539 (37%)	137 (9%)	1143 (50%)
		Prior infection more aware <sup>1</sup>	Prior infection more engaged <sup>2</sup>	Prior infection more intent <sup>3</sup>

<sup>1</sup>P=0.0001 <sup>2</sup>P < 0.0001 <sup>3</sup>P<0.0001

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## CONSUMER RESULTS (CONT'D)

		Of all respondents that are aware of public reports (n=1895)
Which two factors would you consider most important in choosing a hospital?	Recommendation from Physician, Nurse, other health professional	46%
	Reputation	37%
	Insurance coverage	34%
	Location or convenience	31%
	Recommendation from friends or family	20%
	Hospital infection rate	14%

In contrast, (2006) 85% of respondents said HAI rates were an important factor in choosing hospital. Importance vs. Priority.

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## CONSUMER RESULTS (CONT'D)

- Where are they most likely to seek information on HAI when choosing a hospital in the future? red=most likely; blue = least likely



P=0.0009

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## CONSUMER RESULTS (CONT'D)

- What can hospitals do to help move states to have more intent?
  - Ownership
  - Consumer empowerment
  - Process
  - Opportunities for APIC chapters

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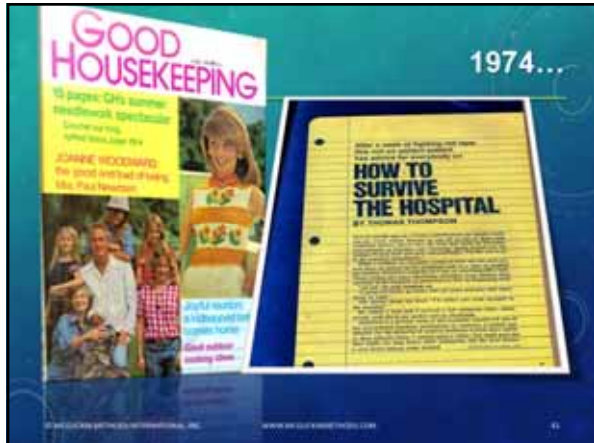
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- More public awareness needed
- IPs and Epidemiologists are key factors in all steps when supporting a program
- Consumers need to be consulted.
- Many "top lists" out there...

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### ADDITIONAL INFORMATION

- McGuckin M, Govednik J, Hyman D and Black B. Public reporting of healthcare-associated infections: Epidemiologists perspectives. *Infection Control and Hospital Epidemiology*, November 2013. 1201-1203.
- McGuckin M, Govednik J, Hyman D and Black B. (2013b) Public reporting of healthcare-associated infection rates: Are consumers aware and engaged? *American Journal of Medical Quality*. January/February 2014. 83-5.
- Govednik J, McGuckin M, Bunson J, Hyman D and Black BS. Healthcare-Associated Infection Reports: How do states include and inform the public? Do people notice? *Patient Safety and Quality Healthcare*. November/December 2013. 24-31.

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### THANK YOU

- We thank the Robert Wood Johnson Foundation for their support
- **RWJF Grant Title:** Does Mandatory Public Reporting Affect Hospital Infection Rates?
- **Grant I.D.:** 6375
- [Maryanne@mcguckinmethods.com](mailto:Maryanne@mcguckinmethods.com)
- [Govednik@hhreports.com](mailto:Govednik@hhreports.com)

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**APPENDIX: EPIDEMIOLOGIST SUGGESTIONS FOR IMPROVED CONSUMER AWARENESS, UNDERSTANDING**

**What changes would you suggest to increase the public/consumer's awareness, use, and understandability of your state's HAI reports or website?**

Clarity about rates for surveillance vs. actual events.  
 There needs to be active interaction between healthcare providers, epidemiologists and administrators of a healthcare facility and its patients to provide real time and accurate information on patient safety (and not comparisons of "apples and oranges."  
 The consumers need to understand how the hospitals are compared and by what metrics we use to calculate the SIR.  
 Public information announcements, press releases directly to media from state.  
 The state report is only released on a year - to - year basis, so the data sometimes seems "old". I understand the need for validation and standardization which takes time, but a more timely report would be nice too.  
 There has been very little publicity, so most people won't think to access it. Additionally, many people have little choice about where they are hospitalized -- much more affected by insurance and ambulance traffic.  
 My hospital receives patients from at least 3 states, so comparisons at the state level are not very useful. We do comparisons with similar-type hospitals and national level.  
 Promoting the website  
 Improve visibility and access on the state website. Difficult to navigate to the page.  
 The site is limited and well focused. There are almost no statistically relevant differences. Good news = The public sees we are doing something. Bad News = Almost no body cares and the few that do have no idea about it's relevance, accuracy and sensitivity. The public thinks that it represents "accountability" but they have no idea or interest in understanding the complexity of the issues.  
 Give a better sense of what differences are real. People focus on the second decimal place, or on the number of stars, without getting a clear story over the course of years.  
 Education  
 Role of risk stratification  
 Eliminate their reporting and use single, nationwide reporting process (eg NHSN, CMS)  
 Many facilities in our state are small. Perhaps we should treat all critical access hospitals in an area as a group and work on them as a group to improve rates. 25% of all hospitals in the US are CAH.  
 Need to: 1) report HAI as that matter (ie audits) 2) present them in an easy to understand format  
 Adds on TV and radio  
 Our state does not have such a site. If it did I hope there would be some means of data verification and risk stratification.  
 National, standardized reports so every state doesn't reinvent the not-so-great wheel, so you can see reports by national, regional, state, city, hospital etc.

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**What changes would you suggest to increase the public/consumer's awareness, use, and understandability of your state's HAI reports or website?**

Consumer education about basic statistics is crucial to understanding and comparing data other than a basic higher/lower or equal to other institution breakdown.  
 The state website was supposed to have a lot of education for the public and explanations about rates, and why they may not be comparable between hospitals, but they did not follow through with all of those initial requirements.  
 Inform how the data are collected  
 In general, such reports need to be statistically valid - not the garbage that many of the publicly reported data are, e.g. HCHAPS. HAI reports usually are, but patients tend to focus on numbers and do not understand what statistically insignificant differences mean.  
 Ours were recently revised, with our input, to have a "consumer-level" and "detail-level" reports. The consumer level is pretty basic and color-coded to make it more easily understood, and I think is a step in the right direction. The discussion of precision vs. statistical significance I think is still difficult for lay people to understand.  
 First step is (funded) research to evaluate approaches to improve the accessibility and usefulness to consumers of this data.  
 We provide a nice description of how the data are calculated with information about how to interpret the data. I think our state spent a lot of time upfront (with various stakeholders) developing the website so it would be consumer friendly. I think it would be a good model for other states.  
 Make them relevant to the consumer, ensure reliability of reporting by the hospitals  
 The rates of HAI can be misleading and knowing the actual numbers, complexity/comorbidities/severity needs to be taken into account at the time of interpretation of the HAI reports.  
 Explain the problem in simple real terms  
 The descriptions in the sample report are understandable only to persons with knowledge of SIR and other rates. Not oriented toward first level consumers and patients.  
 I don't think such an increase is necessary, valid or of any value.  
 More promotion and more user friendly.  
 Make public aware that there are major methodological problems with data that make it difficult to compare hospital data side by side.  
 Better explanations of the data - there's a bar graph "your hospital" vs. "other hospitals" where at first glance you look terrible but it turns out the confidence intervals overlap so there is statistically no difference in your rates - but the public doesn't get that.

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## 2014 WHO Teleclass Schedule

Clean Care is Safer Care

<p>January 29 <b>Innovation and Implementation strategic approaches to reduce catheter-related bacteraemia: The results of a European multicentre study (PROHIBIT)</b> <i>Dr. Walter Zingg, Switzerland</i></p> <p>March 7 <b>How to prevent the spread of multiresistant bacteria</b> <i>Dr. Stephan Harbarth, Switzerland</i></p> <p>April 9 <b>Highlights on SSI prevention: The new CDC guidelines and more</b> <i>Dr. Joseph Solomkin, USA</i></p>	<p>May 5 <b>Special lecture for International Hand Hygiene Day</b> <i>Prof. Didier Pittet, Switzerland</i></p> <p>September 3 <b>New WHO global campaign to eliminate unsafe therapeutic injections</b> <i>Dr. Benedetta Allegranzi, Switzerland</i></p> <p>October 8 <b>Public reporting and disclosure of HAI rates: Positive impact or confusion?</b> <i>Dr. Maryanne McGuckin &amp; Mr. John Govednik, USA</i></p> <p>November 5 <b>Global application of behaviour change models and infection control strategies</b> <i>Dr. Michael Borg, Malta</i></p>
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