

The background of the slide is a microscopic image showing numerous blue, rod-shaped bacteria, likely Bacillus subtilis, against a dark background. The bacteria are oriented in various directions, some appearing as single rods and others in small clusters.

# Infection Prevention Through Integrated Data Analytics and Training

*For Healthcare Environmental Services*



Email the Author



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# 722,000

*annual HAIs in U.S. acute care hospitals*

*--"HAI Prevalence Survey", CDC*



# 75,000

*annual deaths due to HAIs in U.S. acute care hospitals*

*--"HAI Prevalence Survey", CDC*

A dense collage of numerous small, square and rectangular photographs of people of various ages, ethnicities, and genders. The images are in grayscale or muted colors, creating a textured, mosaic-like background. The faces are arranged in a way that they overlap and fill the entire frame, with the central text overlaid on top.

# 1 in 25

***patients who will contract at least one  
infection during a hospital stay***

*--"HAI Data and Statistics", CDC*

**So What Do All  
Those HAIs  
Cost?**



**\$28-48**  
**Billion**  
**Annually**

*--"Economic burden of healthcare-associated infections:  
an American perspective", Patricia Stone, for NIH and  
the Agency for Healthcare Research and Quality*

# There are Many Elements of Infection Prevention

*Healthcare Worker Vaccinations*

*Isolation*

*Patient Risk Assessment*

*Hand Hygiene*

*Environmental Cleaning*

*Effective Disinfectants*

*Standard Precautions*

*Avoid Intubation*

*Protocol Adherence*

# There are Many Elements of Infection Prevention

*Healthcare Worker Vaccinations*

*Isolation*

*Patient Risk Assessment*

*Hand Hygiene*

***Environmental Cleaning***

*Effective Disinfectants*

*Standard Precautions*

*Avoid Intubation*

*Protocol Adherence*

***is often overlooked.***



**“Contaminated hospital surfaces play an important role in the transmission of dangerous pathogens**



...including *Clostridium difficile* [C.diff], and antibiotic-resistant organisms such as methicillin-resistant *Staphylococcus aureus* (MRSA) and vancomycin-resistant enterococci (VRE). Therefore, *appropriate disinfection of those surfaces and equipment which patients and healthcare personnel touch is necessary to reduce exposure.*”

--“*Environmental Cleaning for the Prevention of Healthcare-Associated Infections (HAI)*”, U.S. Department of Health and Human Services’ Agency for Healthcare Research and Quality’

*And clean surfaces start with  
environmental services workers.*

**“Environmental services is not  
being recognized as the incredibly  
important patient safety initiative  
it is.”**



*--Dr. Michael Gardam, director of infection prevention and control at Toronto's University Health Network in, "How hospitals are on the front lines in a new era of germ warfare," The Globe and Mail*

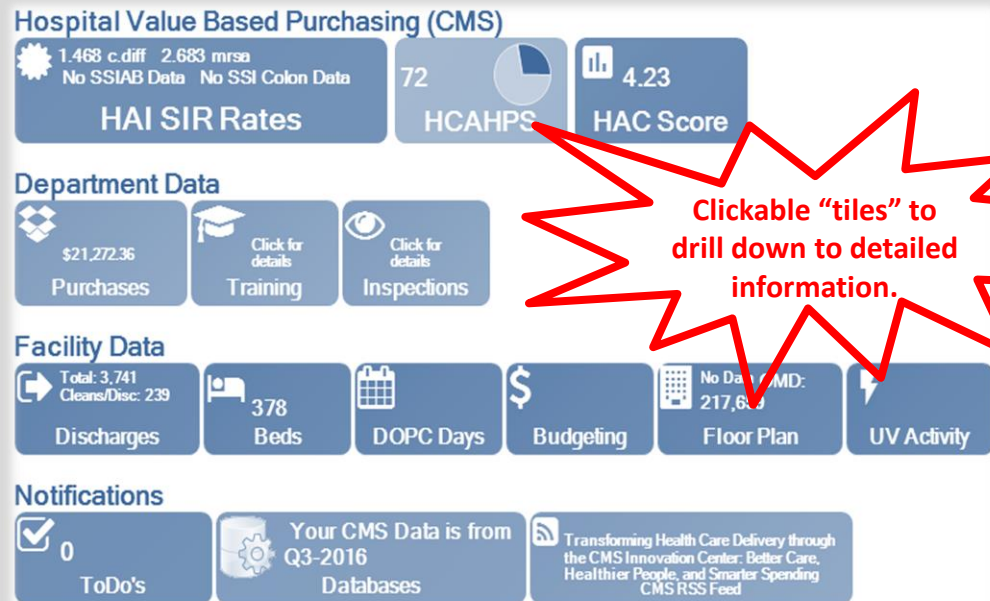


# Battle HAIs with





*single solution for environmental services leaders to analyze and monitor key HAI indicators and integrate online infection prevention training to keep their staff top notch and increase profit*





SSI Colon= .82   SSI Ab=.75  
MRSA= 0.67   C.diff= 0.80

HAI SIR Rates

72



HCAHPS



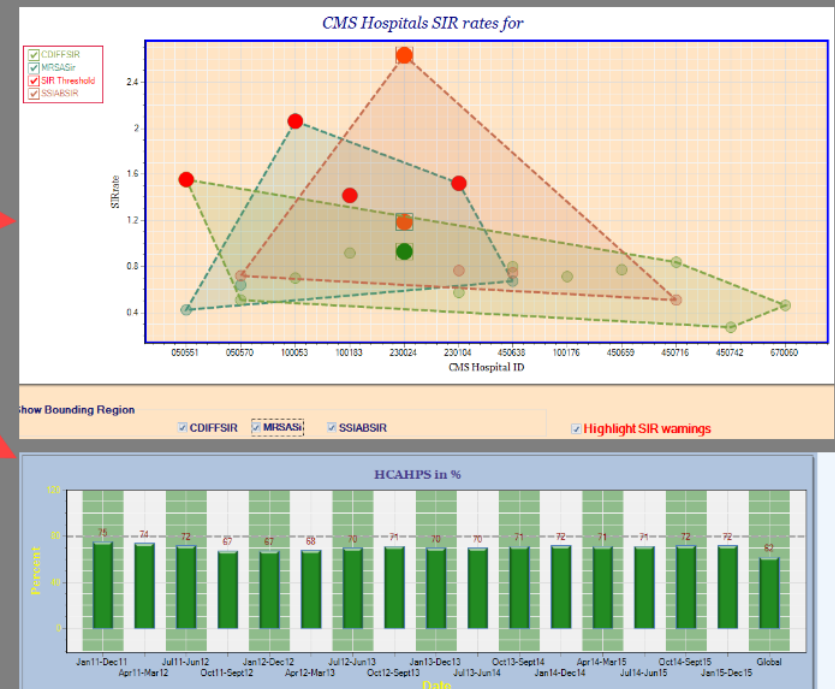
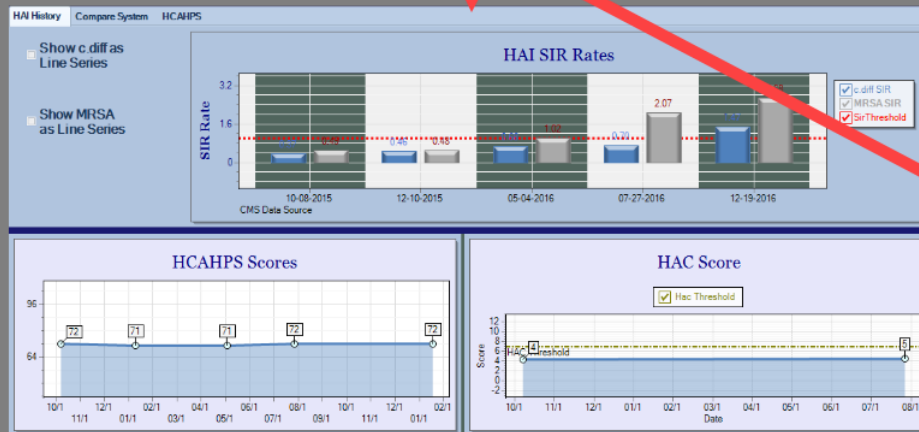
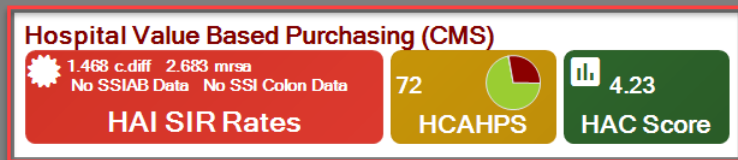
5.25

HAC Score

**Easily track CMS infection and customer satisfaction scores such as HAI SIR, HCAHPS, HAC and more over time by facility**



# Customize visualization cues to maximize understanding of your key metrics



*Use bar charts, scatter charts, pie charts, etc. and color coding to suit your needs*

# Integrate environmental services employee performance information

## ES Department Data



20,452

Purchases



Click for  
Details

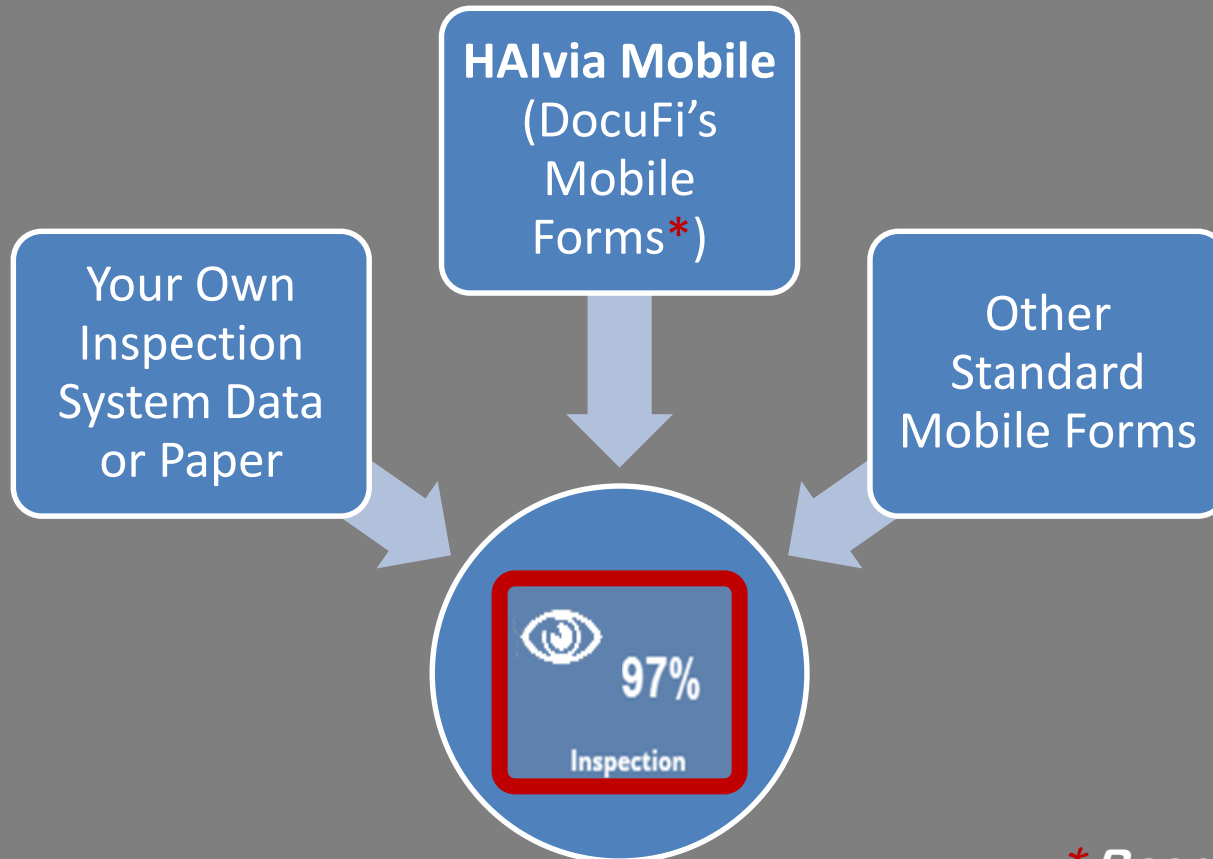
Training



97%

Inspection

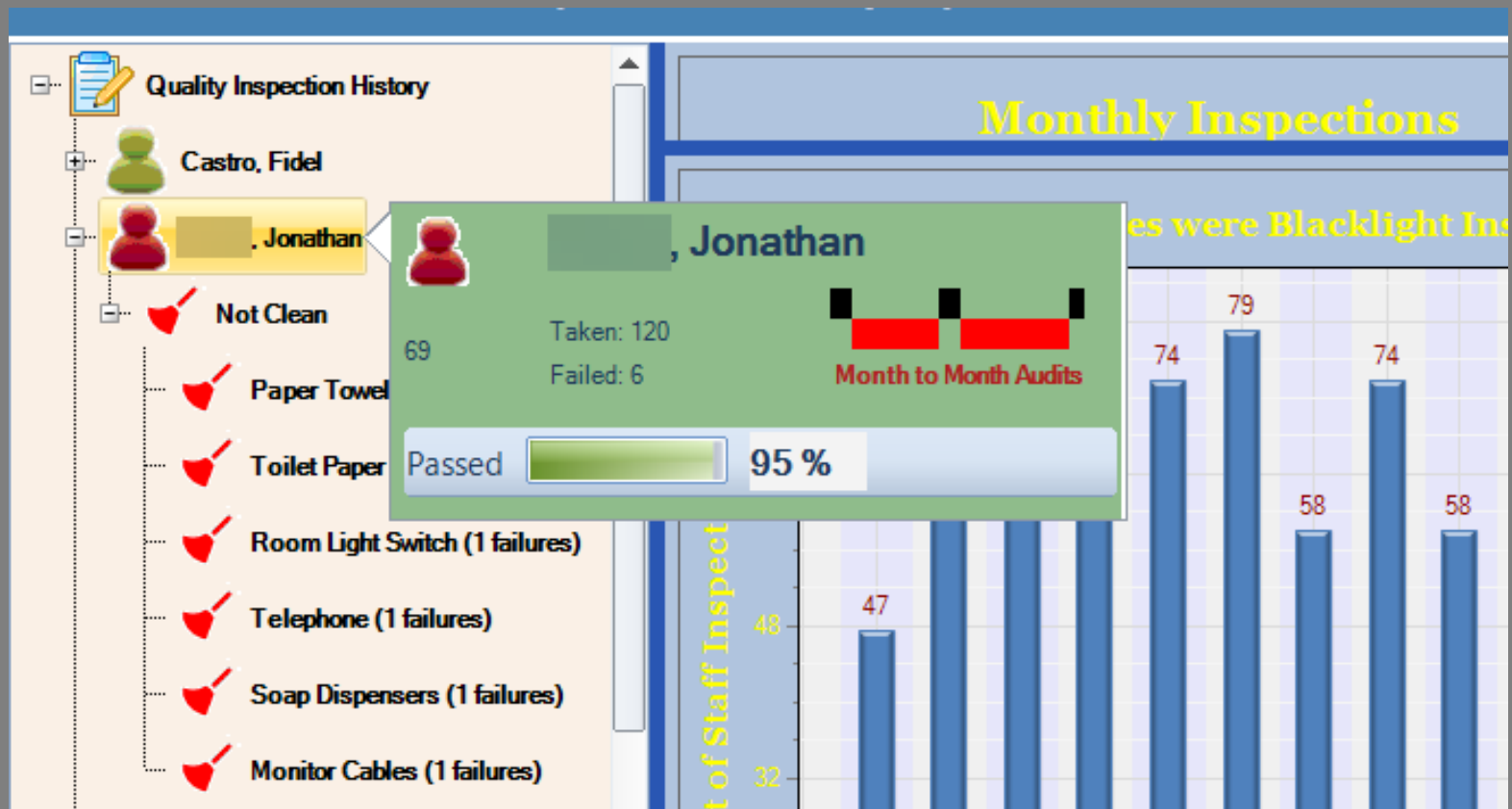
# *We'll work with multiple sources of inspection data*



*\* Based on the CDC Environmental Checklist*



# *Use inspection data for performance improvement actions for cleaning staff*



**Automatically launch integrated on-line training based on individual employee needs**

ES Department Data



20,452

Purchases



Click for  
Details

Training



97%

Inspection

# *Track historical training and integrate online training to launch based on inspection data or testing*

The screenshot displays two side-by-side panels from a 'Training Management' system. The left panel, titled 'Classes taken in the last year', lists three courses: 'Basic Cleaning 9-12-16', 'Infection Prevention for Housekeeping 10-11-16', and 'Improving the Patient Experience 10-23-16'. The right panel, titled 'HouseKeeper Course Management', shows a progress bar with stages: Orientation (green), Mandatory (green), Basic Skills (red), Position Specific (red), Safety Training (red), and Customer Service (red). Below the progress bar is a table with columns: CourseItem, Course Name, Type, and Date Completed. A key indicates 'Completed' in green and 'Not Completed' in red.

**Historical Training**

**Online Training**

The screenshot shows a user profile for 'Ramon' with a 'Not Clean' status. The profile includes a progress bar for 'Passed' at 80%. Below the profile, a list of inspection items is shown: 'Keyboards (1 failure)', 'Bed Rails (1 failure)', 'CDC - Remote Controls (1 failure)', and 'Monitor Cables (1 failure)'. A callout box provides details for 'Keyboards (1 failures)', showing '1 failures', 'Surveyor: Mr. Steve', and 'Date: 16/17/02'.

**Keyboards (1 failures)**  
1 failures  
Surveyor: Mr. Steve  
Date: 16/17/02

*"You have been asked to view the Basic Cleaning Video."*



# Track other key data such as Purchasing and Facilities



20,452

Purchases

Facility Statistics



Total: 2,510  
Cleans/Disc: 180

Discharges



173

Beds



DOPC Days



Budgeting



226,324

Floor Plan



UV Activity

# *Drill down for details and charts*



226,324

Floor Plan



20,452

Purchases

## Purchasing Tree

1

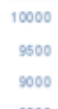


Email the Manufacturer's Rep.

4

## Item Flyout

2



Ecolab  
MFG P  
Dimer  
Packin

3

## Building (915,424)

### Main



Floor 1st (177,859 Square Feet)



Floor 2nd (148,283 Square Feet)



Floor 3rd (159,791 Square Feet)

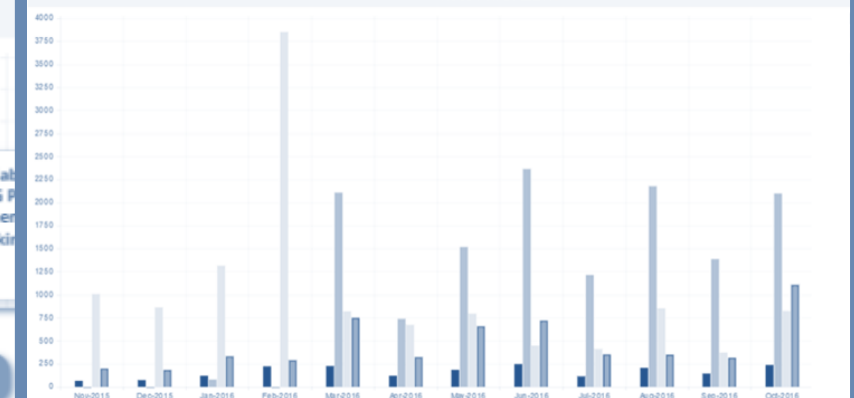


Floor Ground (154,777 Square Feet)

### East Wing

### West Wing

Annual Unit Purchases in \$



**“CMS continues to raise the bar on quality and patient perception of care, making it critical for organizations to have a foundation in place that can withstand the even tougher ones [value-based purchasing measures] waiting in the future. Simply maintaining results is not enough...”**

“CMS continues to raise the bar on quality and patient perception of care, making it critical for organizations to have a foundation in place that can withstand the even tougher ones [value-based purchasing measures] waiting in the future. Simply maintaining results is not enough...

**...The Safety domain was added in FY 2017 (to the CMS Value-Based Purchasing program) and includes Patient Safety Indicators and Healthcare-Associated Infections (HAI) measures. The Safety domain accounts for 20 percent of reimbursement.”**

*--"The impact of Value-Based Purchasing for your organization", The Studer Group*





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patient experience  
improvement using  
the HAlvia  
Dashboard**

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## *Visualizing and Managing Infection Prevention for Environmental Services*

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