

# Visualizing and Managing Infection Prevention Data

**+HAI** dashboard  
**via**

*simple visual analysis tools  
for healthcare infection  
prevention teams*



# HAI Prevention

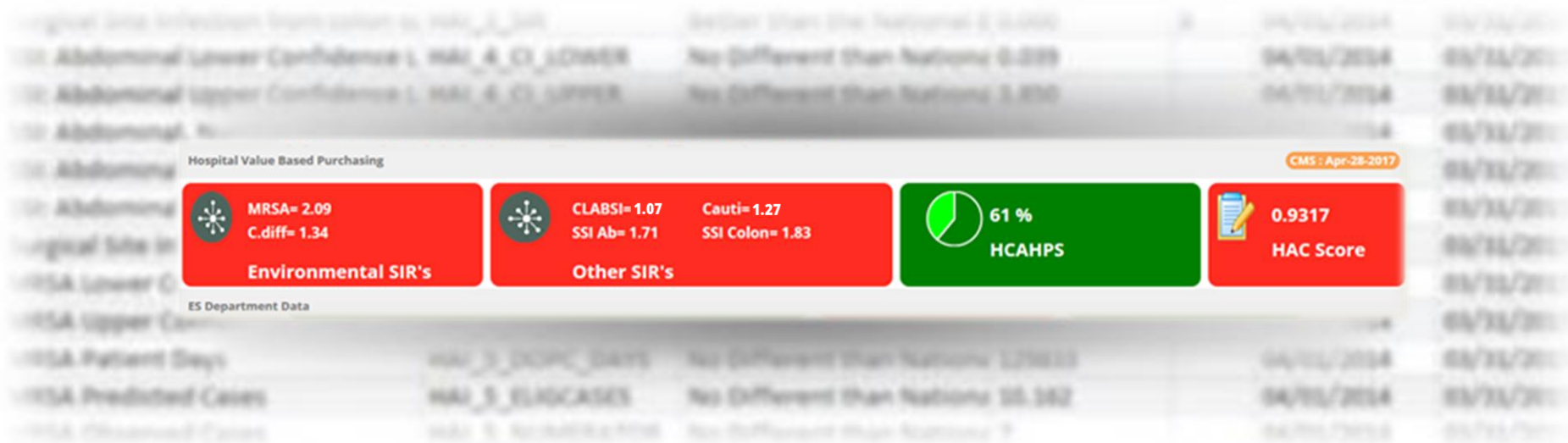


Email the Author

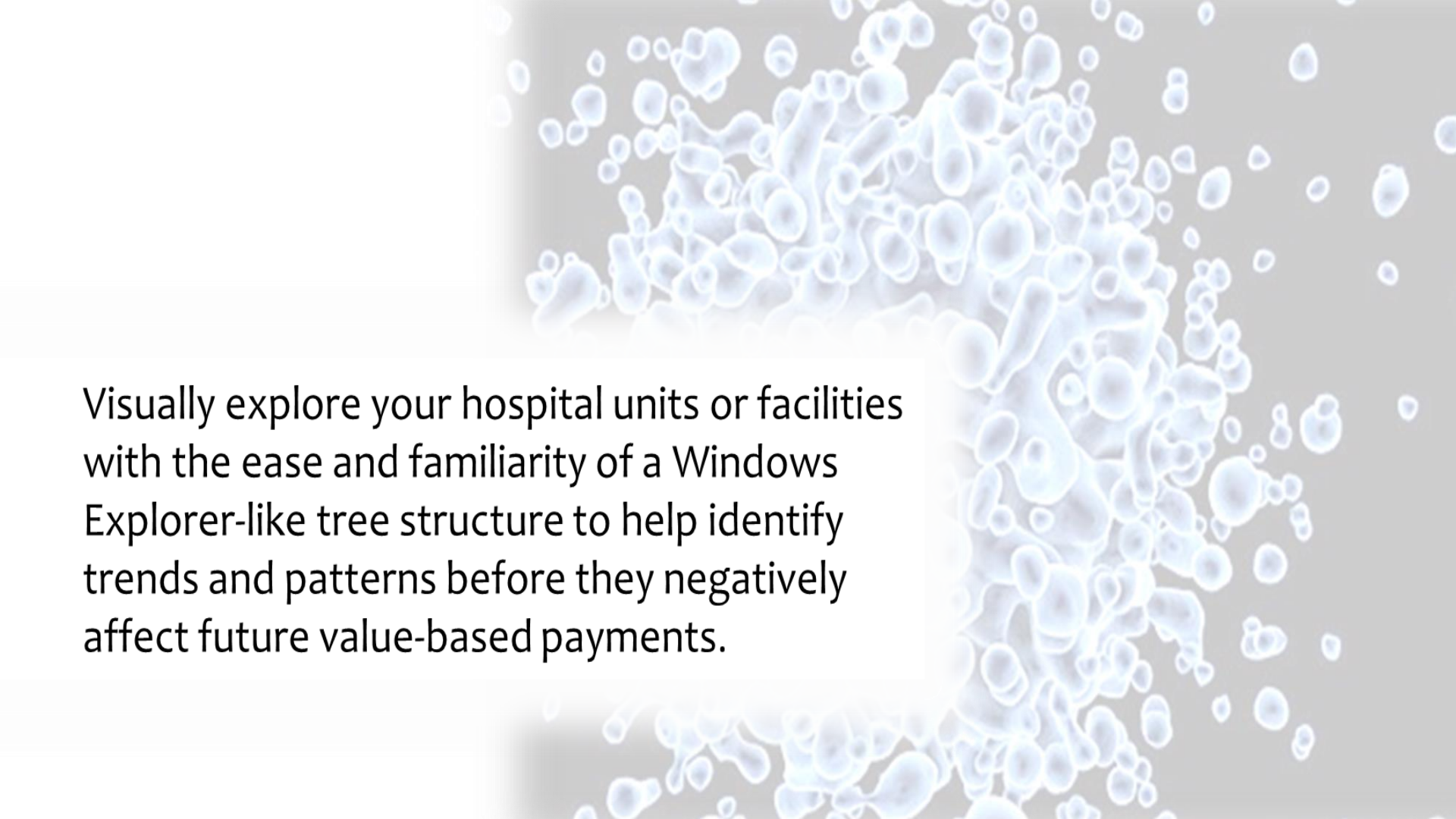


transforms dull and static **Centers for Medicare & Medicaid Services (CMS)** data into a visual and interactive world to help you make sense of infection prevention data.

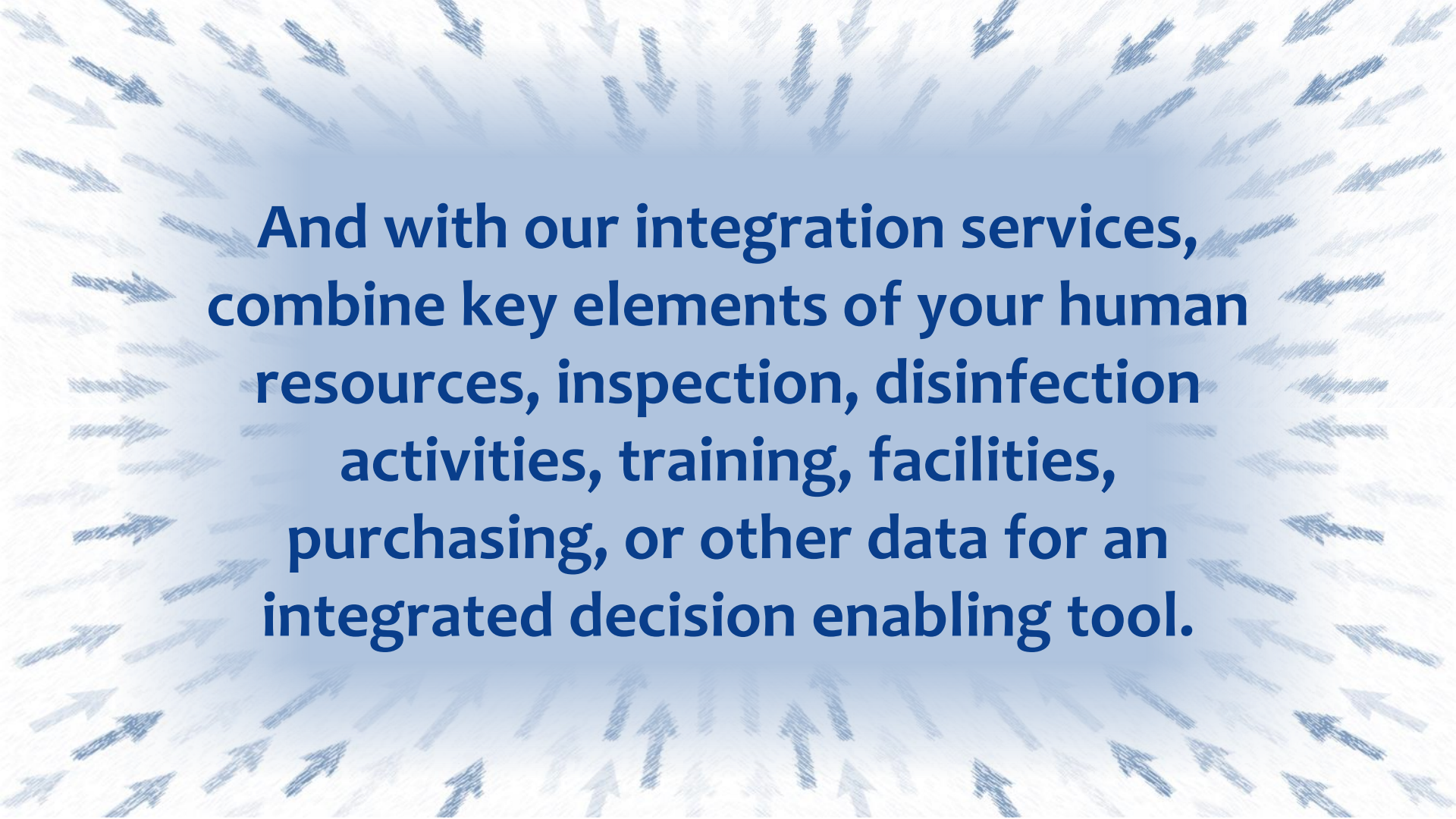
Select your hospital and see up-to-date CMS quarterly reporting\* in a single-screen dashboard with drilldown features.



*\* Any publically release CMS databases can be integrated.*



Visually explore your hospital units or facilities with the ease and familiarity of a Windows Explorer-like tree structure to help identify trends and patterns before they negatively affect future value-based payments.



**And with our integration services,  
combine key elements of your human  
resources, inspection, disinfection  
activities, training, facilities,  
purchasing, or other data for an  
integrated decision enabling tool.**



**First, let's look at our base,  
stand-alone product  
incorporating CMS data.**

# Key Interface Features:

Windows-like tree to explore and navigate

Flyouts on the tree for quick viewing of Key Performance Indicators (KPIs)

Tiles for drilling into more detailed data

# Easily See Summary Views of CMS Data

Unit Metrics											
Data Unavailable Good Warning Not Acceptable											
Hospital Name	HAC Score	C_Diff	MRSA	SSIAB	SSIColon	CAUTI	CLABSI	HCAHPS	Training	Inspections	HospitalId
Baystate Medical Center	0.93	1.34	2.09	1.71	1.83	0.55	0.51	61	307	67	230024
Childrens Hospital	-0.43	0.54	1.02		0.49	0.38	0.83	65	403	77	450638
Local Community College	-0.33	0.83	0.58			1.56	0.45	61	729	95	450716
Marine Biological Laboratory	0.43	1.03	2.28		1.55	2.27	1.24	61	2135	63	050551
Medical School	-0.63	1.06				0.38	0.24	63	90	55	450659
My Clinic Somewhere	-0.51	0.98	0.70			1.02		73	309	73	100183
Outpatient Hospital	0.03	1.00			0.35	0.52	1.12	70	99	90	100053
Presidential Hospital	-0.91	0.96						68	392	82	670060
State College Med Center	-0.10	0.64	0.22	0.68	0.29	1.12	0.47	65	178	51	050570
University Medical Center	0.48	0.79	2.12	1.06	1.11	0.17	1.09	66	87	92	230104

Summary of all units based on your reporting structure

Summary of a single selected unit.

SIR Summary

Input Assumptions

Analysis

CMS Data

	# Cases	SIR Rate	State Avg
c.diff	9	.83	0.894
MRSA	1	.58	0.886
SSIAB	0	Not Available	0.582
SSIColon	1	Not Available	0.877
Clabsi	1	.45	0.903
Cauti	2	1.56	0.84
Cleanliness Score		61	76
HAC Score		-.33	

Net Revenue

\$149,617,636

9,069 Discharges

% 10.5 Medicare

% 12.8 Medicaid

38,513 Patient Days

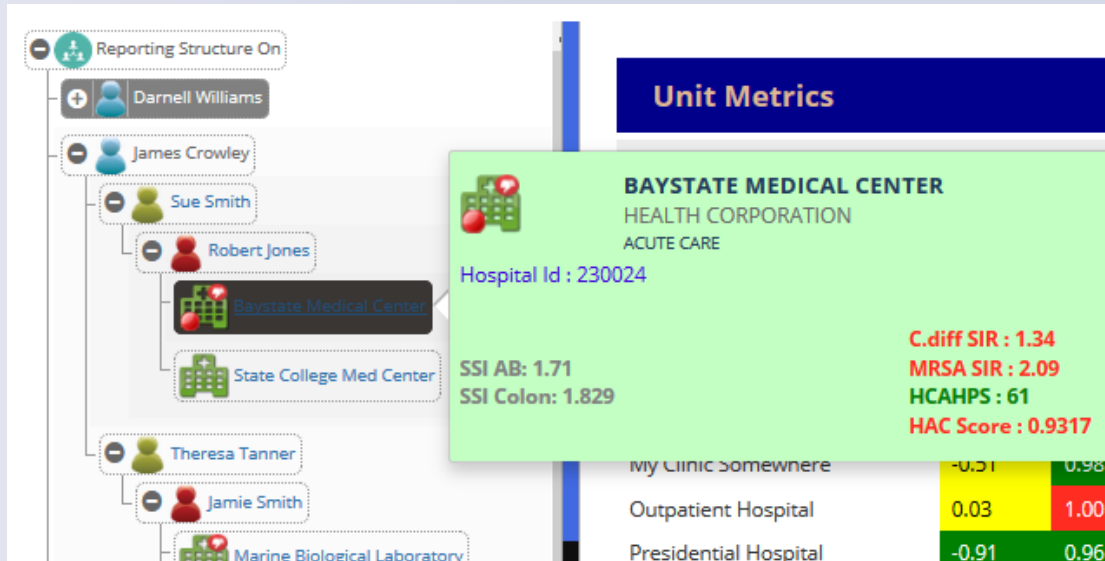
Observations (SWOT Analysis)

Strengths

Weaknesses



# Use the Tree Structure To Select Units or Groups

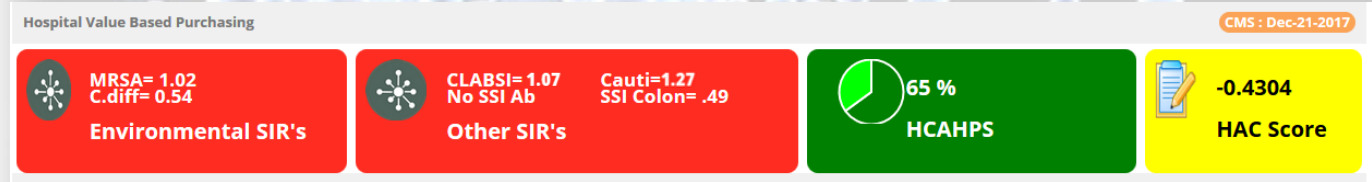


Hospitals can be arranged by system or integrated into your reporting structure (as shown).

Mouse hovers show flyout displays with instantaneous data such as SIR rates, HCAHPS, and HAC scores without interacting with the database.

Select a hospital from the tree to view the dashboard tiles.

## The selected hospital's scores in tiles:



*Red indicates the score is below your predefined threshold.*

*Green indicates the score is above your predefined threshold.*

*Yellow indicates the score is just above your predefined threshold.*

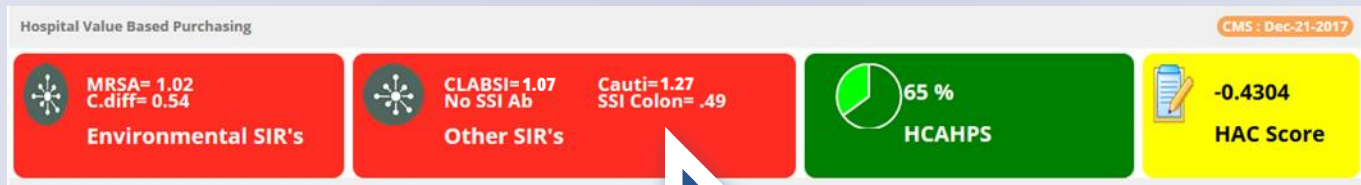
The main dashboard has tiles for major CMS data with visual clues.

\* Any publically release CMS databases can be integrated.

# Explore, Monitor, Analyze ...

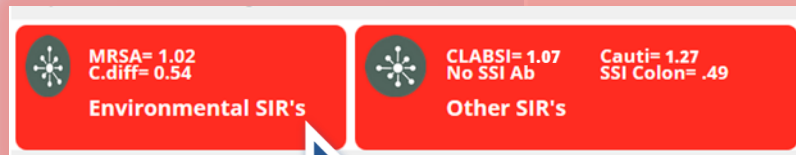
*drill down for details*

Click on any of the tiles to drill down for more information on critical infection rates, HAC scores, and satisfaction scores.



# Explore, Monitor, Analyze ...

*drill down for details*

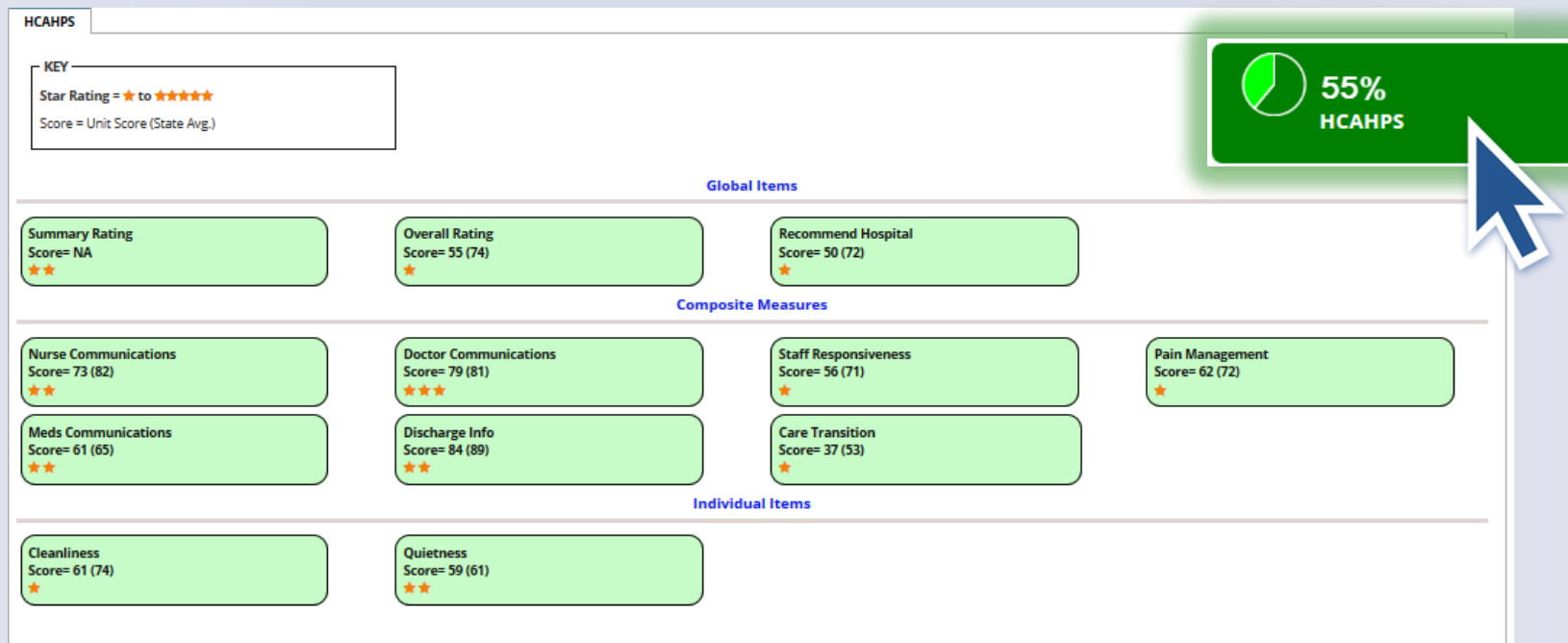


Easily view historical data to help identify trends and assign appropriate corrective actions.



# Explore, Monitor, Analyze ...

*drill down for details*

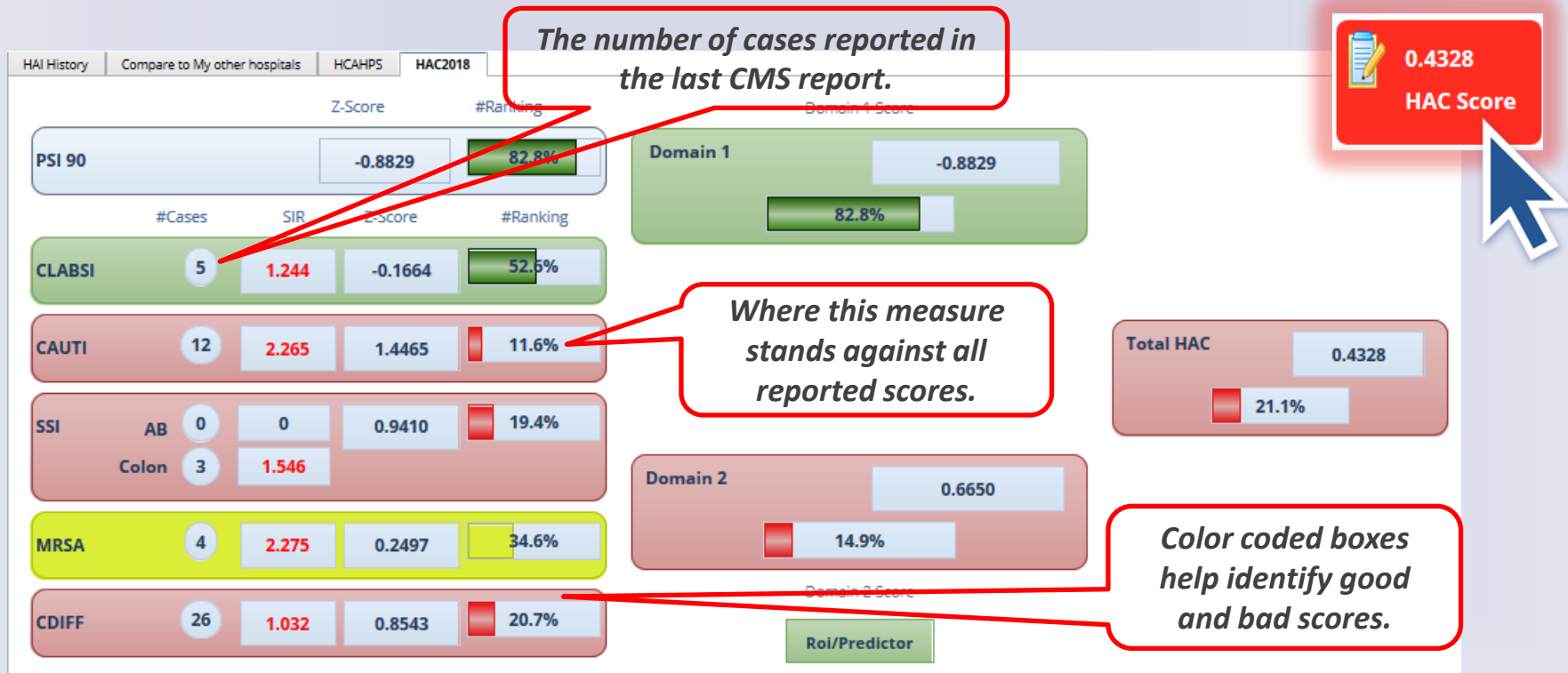


The CMS patient satisfaction survey is displayed by category for the current reported data.

# Explore, Monitor, Analyze ...

*drill down for details*

HAC 2018 scoring is displayed in a manner to help identify potential problem areas.





Set your own thresholds and  
warning conditions based on your  
business goals.



Set your own thresholds and warning conditions based on your business goals.



**Set:**

- What SIR rate values are Red, Yellow or Green?
- What HCAHPS or HAC scores should be colored?
- What SIR data do you want reported in flyouts?

**Explore, Monitor, Analyze ...**

**... And  
Predict**



# Predict ...

## *HAC ROI Modeling Tool*

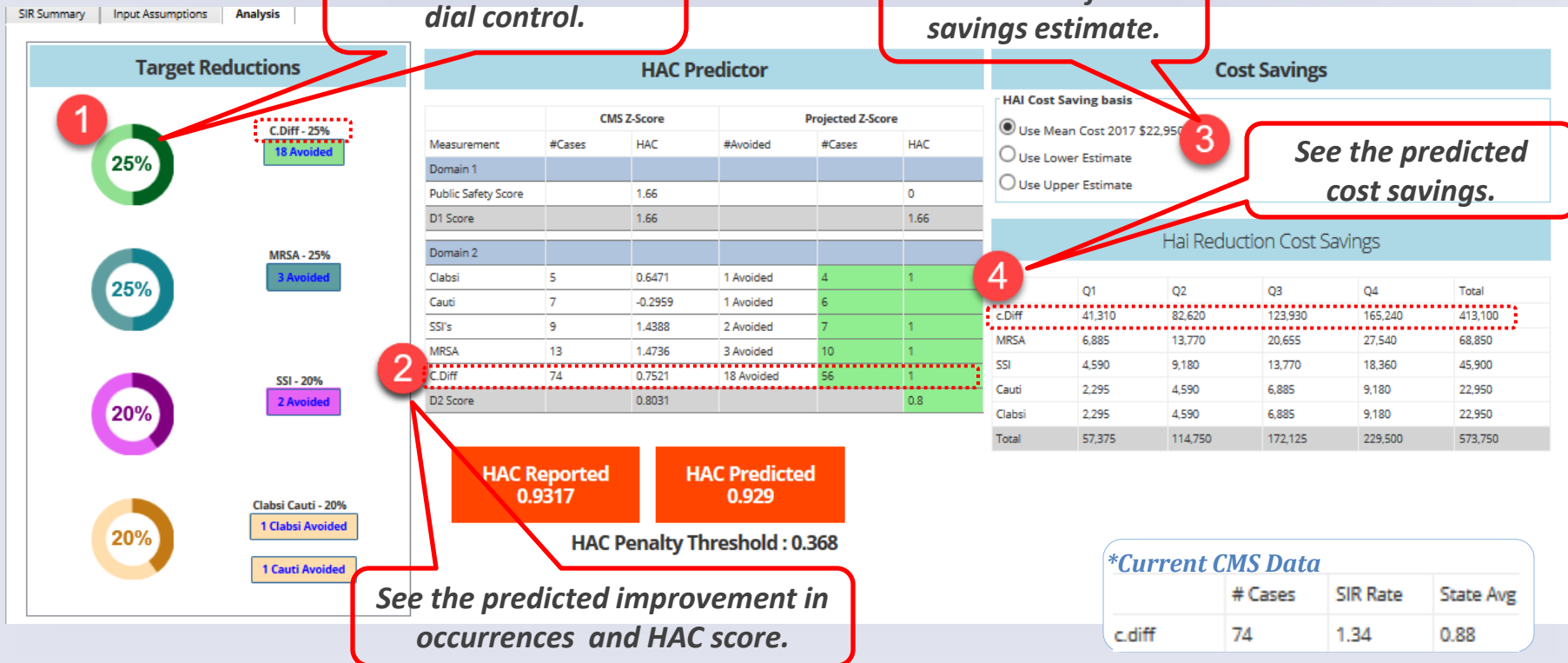
Using the latest industry studies, HALvia's HAC Return on Investment predictor can estimate the cost savings from eliminating CMS penalties for each infection category.

Use the tool to show the impact of implementing processes or technology to target infection types and how the reduced number of cases effects the HAC score and savings.



# Predict ...

*having trouble with c.diff infections\*?*



**Additionally ...**

Multiplatform: Windows, web applications  
and iOS and Android tablets



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Reporting functions

**And we're here to help you take the next step and integrate your specific key performance indicators with CMS data.**



# Integration Possibilities...

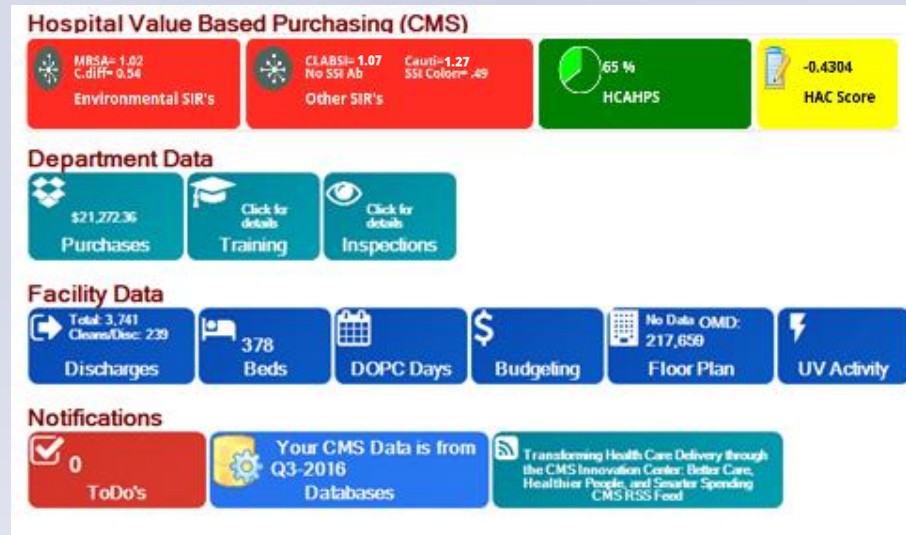
*integrating your data in the dashboard*

Besides CMS data, your internal systems can provide valuable information for the dashboard. Integrated information can be from your Human Resources, Facilities, Purchasing, Infection Prevention, Inspection or Training systems for example.

# HAlvia Dashboard in Action ...

*single screen*

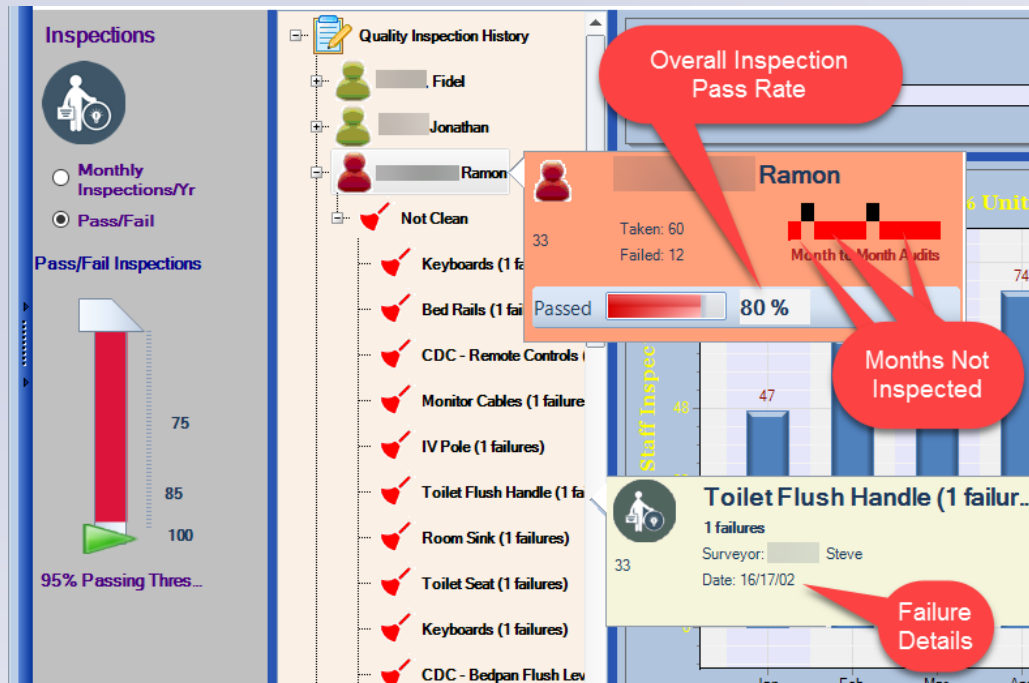
Review infection rates, compare hospital systems, assign corrective actions through integrated training management and drill down into quality inspections, facilities and human resources data from a common dashboard system using a single screen.



# HALvia Dashboard in Action ...

## *quality inspections & human resources example*

Quality inspections can be reviewed to determine how EVS staff members have performed. Use the pass/fail slider to easily identify if a staff member has failed your threshold with color coded icons.

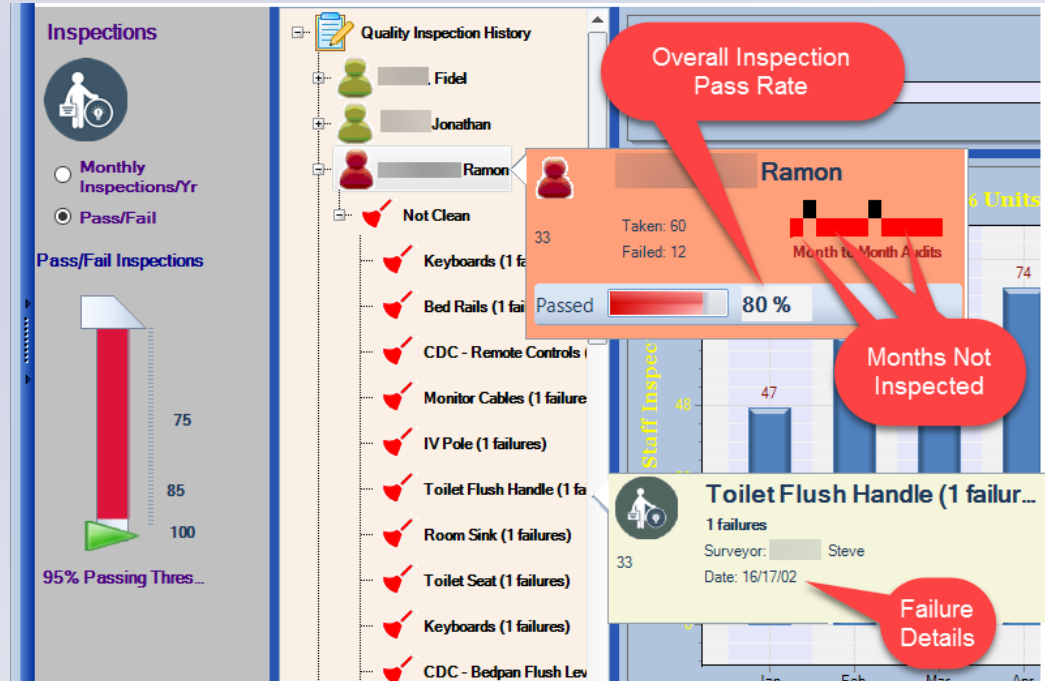


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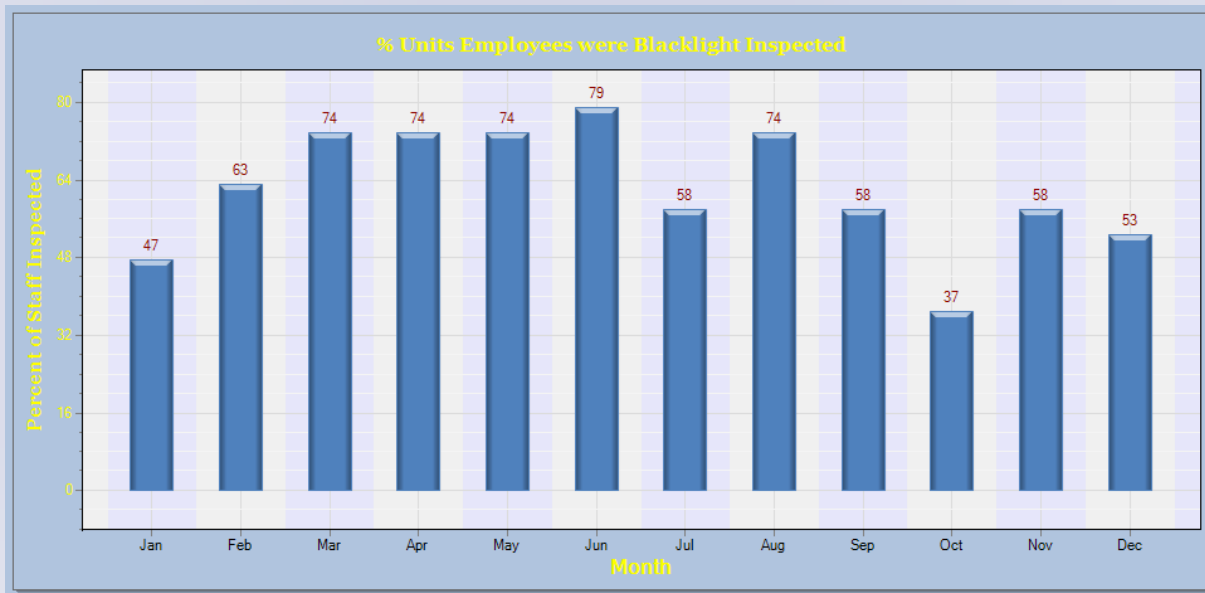
Use flyouts to provide detailed data with no transaction against the database for truly real-time analytics, performances and decision making.



# HAAlvia Dashboard in Action ...

*quality inspections & human resources example*

Analyze the overall percent of staff with inspections with this month-to-month auditing of staff for a specific facility.



# HAAlvia Dashboard in Action ...

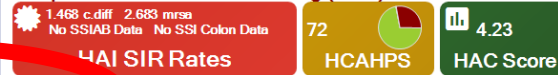
*quality inspections & human resources example*

Need an easy way to obtain inspection data? Get rid of paper forms and use our **HAAlvia Mobile** forms application or any other popular forms capture application to capture inspection data directly into the dashboard system as inspections are completed.



**HAAlvia** mobile

## Hospital Value Based Purchasing (CMS)



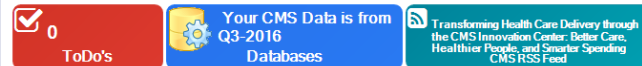
## Department Data



## Facility Data



## Notifications



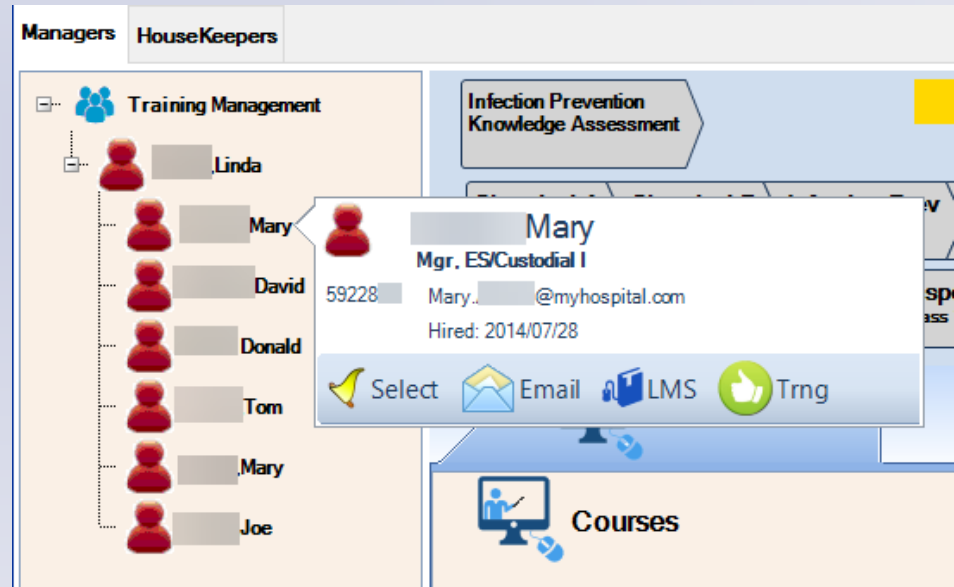


# HAAlvia Dashboard in Action ...

*learning management or training system & human resources data*

Now that you have identified issues, you can assign staff to take online courses to address failed audit problems if your LMS system and HR are integrated.

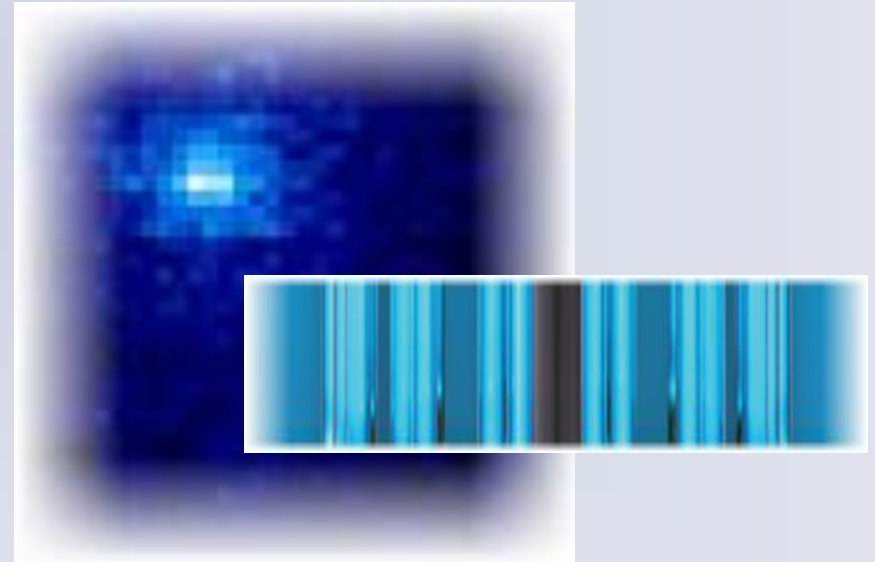
Also easily communicate to staff from the dashboard by using flyouts to tag users for later events, send emails, or send phone text messages.



# HALvia Dashboard in Action ...

*monitor disinfectant devices*

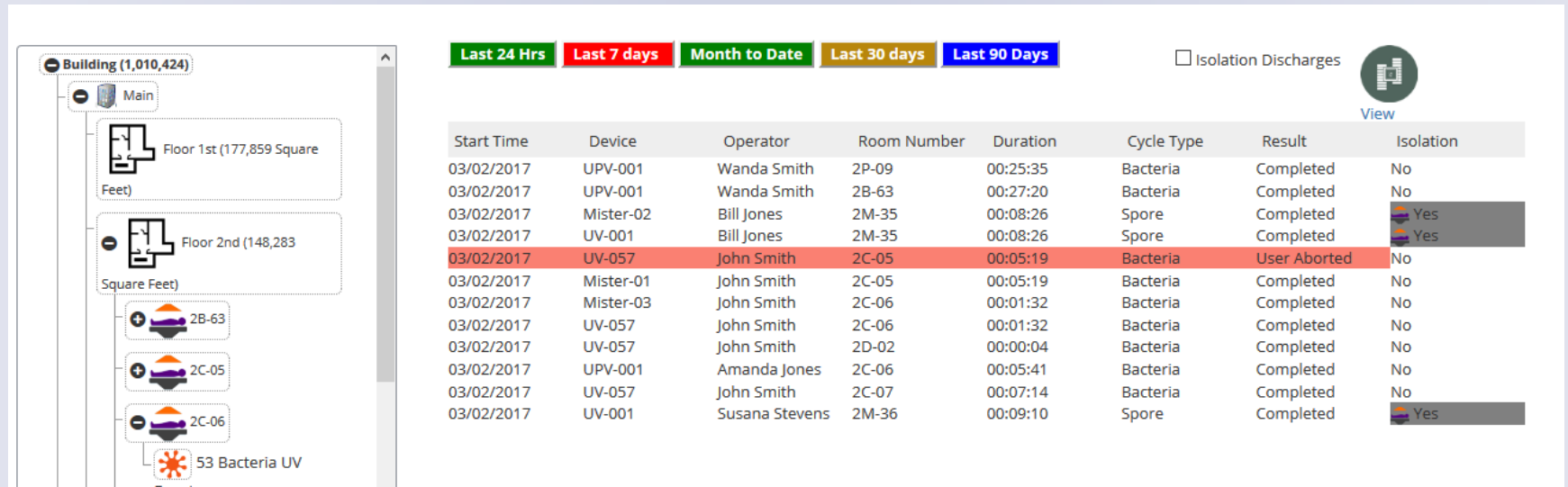
Using disinfection devices such as UV or misting systems in patient rooms or operating rooms? Integrate data from these systems such as location, date, time, length of emission, and operator. Visualization of this data can help spot infection trends to drive improved protocols.



# HAlvia Dashboard in Action ...

*monitor disinfectant devices*

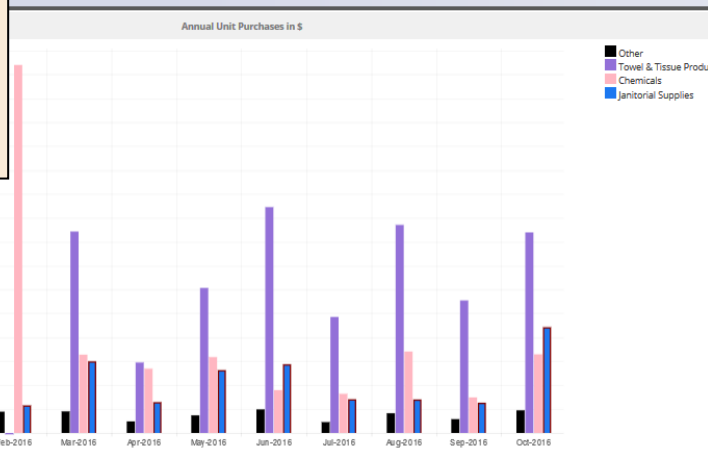
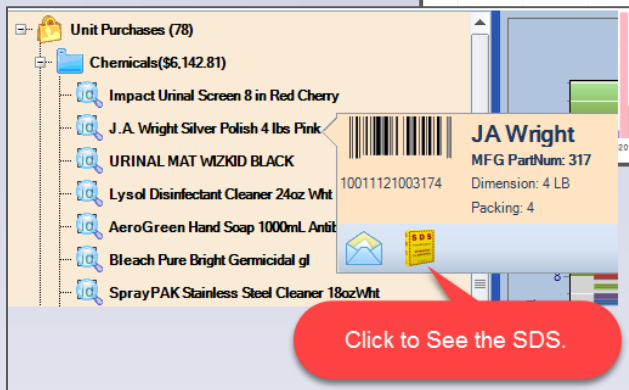
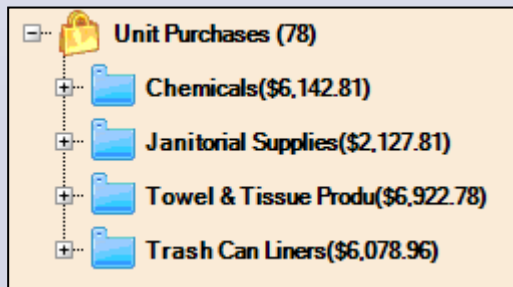
Easily monitor the disinfection events for individual rooms captured from mobile or data-enabled UV devices to ensure auditable records are easily accessible..



# HALvia Dashboard in Action ...

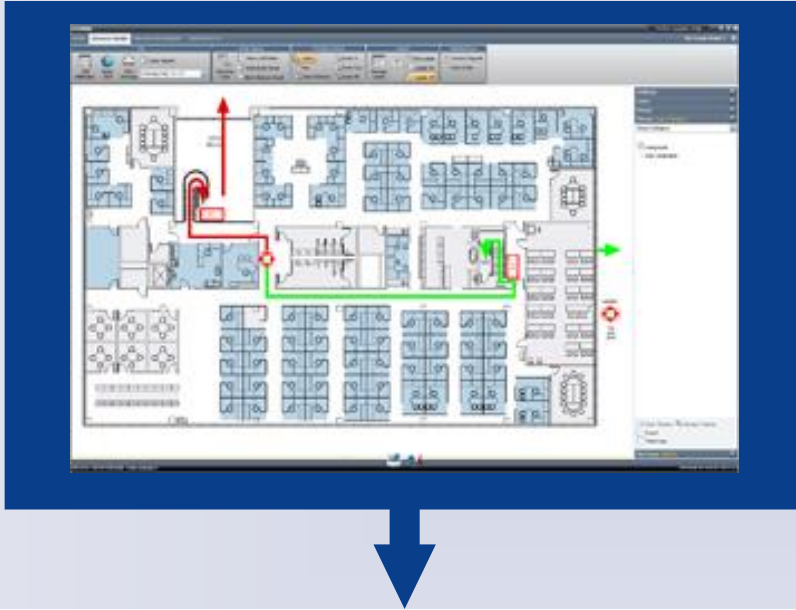
Integrate data from your purchasing system to visualize your spending and easily access product information.

*purchasing example*



# HAlvia Dashboard in Action ...

## *space/facilities management*



Our integration of facilities management software helps facility professionals achieve significant facilities related cost savings.

EvolveFM provides real-time insight into available and used space, information that can be used to make better decisions faster.

Our integration can automate the creation, processing and closing of work requests/work orders for ES and facilities maintenance workers.

### Facility Data



# HALvia Dashboard in Action ...

*other possible integrations*





*Visualizing and Managing  
Infection Prevention Data*

***Increase your value-based  
payments, call HALvia.***

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capture application provider  
and developer.

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