**Program Outcomes Guaranteed**

Our programmatic approach optimizes workflows across multiple touchpoints within hospitals by backing up results and partnering to guarantee improved outcomes. Our commitment to measurable results allows us to ensure sustained savings and strong return on investment.

**ABOUT ECOLAB HEALTHCARE**

Ecolab Healthcare is driven to help health systems and hospitals realize clinical, operational and financial value through repeatable and measurable workflows. Our standardized processes and digital dashboards provide actionable insights and opportunities for corrective actions that help reduce the costs and inefficiencies of infections, while improving margins and keeping patients and staff safe.

To learn how our analytics-driven solutions and standardized processes can help your organization, visit [www.ecolab.com/healthcare](http://www.ecolab.com/healthcare)

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Learn more about the Ecolab Program Guarantees for improved hand hygiene compliance and HAI reductions by speaking with your Ecolab account executive.
## Ecolab® Hand Hygiene Program

Leading health organizations have stated that hand hygiene is the most important measure to avoid transmission of harmful pathogens. It is also the simplest, most effective method for preventing healthcare-associated infections (HAIs). However, studies show that healthcare workers are compliant less than 40% of the time.¹

The Ecolab® Hand Hygiene Program is a complete offering that helps you monitor and standardize processes to drive measurable improvements in clinical, operational and financial metrics. This program’s Compliance Monitoring System allows you to accurately record hand hygiene events by individual, holding each healthcare worker accountable for their compliance and providing actionable guidance for improvement. This helps you achieve and sustain results, deliver better patient outcomes, provide a safer working environment for staff and protect margins for your hospital. Since 2016, the Compliance Monitoring System has captured over 128 million hand hygiene product dispenses, supplied badges to over 14,000 healthcare employees and monitored over 11,000 hospital beds.

### Program Benefits

<table>
<thead>
<tr>
<th>Process Standardization &amp; Consistency</th>
<th>Reduce Risk &amp; Financial Impact of HAIs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a Safer Environment</td>
<td>Enhance Operational Efficiencies</td>
</tr>
<tr>
<td>Increase Staff &amp; Patient Satisfaction</td>
<td>Ensure Regulatory Compliance</td>
</tr>
</tbody>
</table>

1. Data available in Hand Hygiene Program Peer-Reviewed Studies document

## Foundational Program Components

### INNOVATIVE PRODUCTS

- Advanced chemistry and technology to create cleaner and safer environments
  - Bed kits create patient zones around beds to indicate if hand hygiene is performed before and after patient contact
  - Proprietary badge technology to record every patient interaction and provide immediate feedback via visual and audio cues
  - Nexa™ touch-free or manual dispensers with beacons to track individual dispensing activity
  - Proprietary hand soaps and sanitizers for a high standard of compliance and cleanliness

### ANALYTICS & ACTIONABLE INSIGHTS

- Digital dashboards gather millions of data points to drive standardization, measure compliance and pinpoint where corrective action is needed
  - Customizable dashboards provide actionable insights at the system, hospital, unit, role or individual level
  - Tracking of day and night shift hand hygiene trends over time for the entire hospital
  - Compliance, equipment and infection reports, including Contact Investigator to identify staff exposure risk and Isolation Room designation to ensure hospital protocol is followed

### CONSULTATION & SERVICE

- On-site Ecolab experts deploy solutions, monitor progress and analyze performance metrics
  - Regular check-ins and coaching consultations to evaluate current practices and identify areas for improvement

### TRAINING & PROCESS SUPPORT

- Professional training for your staff to drive standardization, manage corrective actions and assist with change management
  - Ongoing, in-person and online CE training aligned to evidence-based practices ensures program success
  - Administrator and manager level training for digital dashboard and data analytics reporting
  - Printed training resources and facility signage to help drive staff education, adoption and compliance across your organization
  - Environmental Services and Facilities training for equipment

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1. Data available in Hand Hygiene Program Peer-Reviewed Studies document
Customizable, clinician-friendly dashboards collect data on individual hand hygiene behaviors, measure compliance and pinpoint precisely where corrective action is needed, down to a department, team or individual level. These actionable insights allow department managers, clinicians and other authorized users to lead process improvements where they are needed most, standardize workflows and keep patients and staff safe.

**QUICK ACCESS DASHBOARD**

- **Facility-Level Trends**
  - 7-Day Missed Opportunity Breakdown: Provides actionable suggestions for improvement.
  - 12-Week Rolling Compliance Tracker: Visibility to long-term trends.
  - Current Active Departments: Data by active department during the current shift.

**Facility-Level Trends**

- **7-Day Shift Compliance Trendline:** Compliance by total, day and night shifts.
- **7-Day Role Compliance Comparison:** Compliance by role, organized by number of patient interactions.

**IN-DEPTH REPORTING**

- **Quick Access Dashboard**
  - **Department Trend Report:** Option to select department and date range.
  - **Individual Report Cards:** Real-time visibility into who is on shift and what their compliance levels are.
  - **Last 100 Events:** Detailed report by individual showing event-level detail to communicate transparency and enable improvement.

- **Contact Investigator:** Visibility to every badged employee who interacted with a patient, avoiding potential for unknown spread of infection.
- **Current Active Employees:** Real-time visibility into who is on shift and what their compliance levels are.
In 2015, the Hand Hygiene Compliance Monitoring System was installed in 5 full hospitals ranging in size from 247 to 385 beds. A retrospective analysis of infection rates 2 years after installation shows a decrease in total annual rates of healthcare-associated infections (HAIs) across all 5 hospitals.

### Case Study 1

#### Setting

5 hospitals | 1,609 beds | Florida

#### Outcomes

<table>
<thead>
<tr>
<th>HAI</th>
<th>Ancillary Cost/infection</th>
<th>Number of Infections Reduced</th>
<th>Estimated Reduction in Cost for 2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLABSI</td>
<td>$70,000[^2]</td>
<td>20</td>
<td>$1,400,000</td>
</tr>
<tr>
<td>MRSA</td>
<td>$14,000[^3]</td>
<td>11</td>
<td>$154,000</td>
</tr>
<tr>
<td>CAUTI</td>
<td>$1,700 (non-ICU) - $10,000 (ICU)</td>
<td>12</td>
<td>$20,400 - $102,000</td>
</tr>
<tr>
<td>C. diff</td>
<td>$34,000[^3]</td>
<td>69</td>
<td>$2,346,000</td>
</tr>
</tbody>
</table>

Total Savings: $3,920,400 - $4,020,000

Compliance levels have risen to 86%-90% and have been sustained

Fewer HAIs delivered an estimated savings of between $3.92 and $4.02M across all 5 hospitals and roughly 1,200 patient days

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2. Ecolab data on file
3. No data was available for CAUTI in 2015. CAUTI data included in 2015 was collected in 2014.

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**Dispensing activity increased from an average of 1,577 dispensers to 2,426**

Baseline compliance 61.5% | Post-implementation compliance sustained at >90%

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**Case Study 2**

353-bed hospital | 6-month trial | 20-bed surgical/medical hem-onc unit | Minneapolis, MN

#### Hospital Challenges

Hand hygiene compliance was historically measured by time-consuming direct observation

Device-associated infections persisted despite 95% hand hygiene compliance reported by secret shoppers

No method for determining individual hand hygiene compliance

#### Ecolab Solutions

Performed a 2-week baseline compliance measurement reporting actual compliance at 61.5%

Provided on-site best practice training on hand hygiene and Compliance Monitoring for all staff

Introduced new Compliance Monitoring System

Compliance Monitoring bed kits to create a zone around the patient that monitors employee hand hygiene events before and after patient contact

Employee badges to measure and record hand hygiene events by individual, providing visual and audio hand hygiene reminders

NexA™ dispensers with beacons to communicate with Compliance Monitoring employee badges

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Boc B, Swanson S, Olson D, Jones C. Bringing Hand Hygiene to the Next Level. Abstract presented at APIC-MN September 27-28, 2018, Minneapolis, MN.