



Reinvesting the Benefits of Workforce Automation

EXECUTIVE SUMMARY

Workforce management is a priority for hospitals and healthcare networks to reduce costs and/ or re-assign staff to other functions. Automating workforce management has proven to drive efficiencies as well as improve patient satisfaction. Virtual Manager's HealthClean automation and efficiency platform was installed in three Crothall Environmental Service (EVS) locations. While the locations were diverse in geography, demographics, and size, the combined results netted an FTE reduction of 14.6%. The HealthClean FTE reduction returned over \$550,000 annually for location priorities. Some Clients invested in additional hardware and programs while others were able to re-assign Staff to other areas in need of additional help. Of course, the option to return some or all of the savings to the Operating Budget stands.

“Virtual Manager has become a great partner of Crothall Healthcare. Their HealthClean Software has tremendously impacted real-time compliance and performance outcomes with validated metrics and data. In addition, transferring needed and required documentation from hard copies to electronic versions has further enforced Crothall's commitment to a greener and more sustainable operation.”

— Eric Anderson,
National Director, Standards & Innovation

KEY LEARNINGS



Patient room work details, by protocol, are available in real-time and historically through automation software



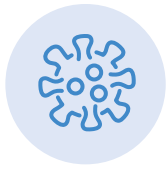
The program cut time per task and costs for key environmental services



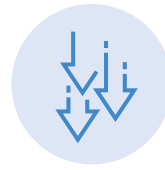
Supervisors can respond immediately to crises or priority changes



Hospitals can cut active FTE levels and redirect resources



Pandemic and labor shortage response can be augmented with Workforce automation



14.6% FTE reduction over 3 diverse sites

Inside the Problem: Workforce Management

Support services are essential to success in healthcare environments. Environmental services work to ensure clean surfaces and support efforts to mitigate infectious transmission that may impact hospital-acquired infections (HAIs). Since these resources are required, workforce management can optimize this investment.

Crothall performed a comprehensive workforce analysis to design the optimum staff size based on several factors, including preventive maintenance requirements, corrective maintenance requirements, and internal/external benchmarks. Crothall hired a 14-person team to cover all clinical engineering responsibilities at Riverside, including a seasoned clinical engineering director with more than 17 years of experience who had overseen 12 separate DNV system surveys. Crothall is funding the new director's DNV-GL Certified Healthcare Operations Professional (CHOP B) certification to bolster support for DNV accreditation further.

Switching from paper forms to electronic spreadsheets was the first step in elevating task management efficiency. Earlier improvements often addressed single aspects of managing the workforce, such as payroll or task assignment. Now, it is possible to streamline all aspects of workforce management automation in a single application.

Benefits of Automation

Automation software can simplify scheduling shifts, paid time off (PTO), and timesheet management. Directors and supervisors can confirm proper staffing levels for units and shifts with a single look. Of course, time savings and overhead cuts come with automating workforce management.

Labor productivity improves as downtime between and after tasks drops with automated monitoring. Data and metrics on staff are available immediately by individuals or teams with the right application. This information can also help hospitals adjust staffing levels and other resources and save on costs immediately.



HEALTH CLEAN



Inside the Product: HealthClean by Virtual Manager

Crothall Healthcare partnered with Virtual Manager to provide the HealthClean program. Virtual Manager is a software platform that unifies operations management duties and metrics in a single digital home. Staff in facilities or departments using HealthClean can address chronic issues related to efficiency and act faster in the moment to address high-priority tasks. Response to issues that arise improve as each Associate has immediate access to management for assistance when needed. Virtual Manager supports the capability to audit, deploy and verify monthly safety topics to drive a compliant Safety Program. In addition, operational leaders and Associates, within the same interface, have focused visibility to departmental and unit HCAHPS scores.

Home 2.0
My Tasks
Gold Team Dashboard
Site History
Maintenance History
SmartCheck History
Associate History
Admin
Training Module

Critical Information Dashboard
Help

Today
Yesterday
View
Roster Staffing Levels
Options

Unfinished Tasks

865

Finished Tasks

197

Finished Incomplete

3

Finished By System

0

Progress

64%

1st Shift Patient Care

Progress: 47%

Manager - 2 Faye Walston Current Task: Crothall Audits Under: 0/1 Est Time Left: 00 hrs 00 mins Progress: 60% Quality: A	Started: 11:16 Last Seen: 11:20 (1 mins) Tasks: 1/2 0/0 0 0 0	Manager - 5 Valerie Richardson Last Task: Crothall Audits Under: 0/18 Progress: 100% Quality: B	Started: 01:15 Finished: 04:34 Tasks: 18/18 0/0 0 0 0	106 - 5E/W + 4E/W Ancillary & Discharge Jessica Graves Current Task: Under: 0/14 Est Time Left: 03 hrs 40 mins Progress: 42% Quality: A	Started: 07:24 Last Seen: 11:10 (11 mins) Tasks: 14/33 0/0 9 0 0
108 - 9E/W + 8E/W Ancillary & Discharge Donna Colston Current Task: Under: 3/28 Est Time Left: 03 hrs 14 mins Progress: 62% Quality: A	Started: 07:47 Last Seen: 11:20 (1 mins) Tasks: 28/45 0/0 0 0 0	109 - 7E/W + 6E/W Ancillary & Discharge Brandon Baylor Current Task: Discharge Cleaning 829 Last Task: Discharge Cleaning 829 Under: 0/11 Est Time Left: 05 hrs 13 mins Progress: 28% Quality: A	Started: 07:29 Idle: 38 mins Tasks: 11/40 0/0 13 0 0	Master HPC List Connie Sheppard Current Task: 803 Under: 0/7 Est Time Left: 02 hrs 07 mins Progress: 39% Quality: A	Started: 07:41 Last Seen: 11:19 (2 mins) Tasks: 7/18 0/0 10 0 0



The software clearly shows where the Employee worked and whom they may have come in contact with during their work period.

Regulatory Technology (RegTech) Application

RegTech provides technologically advanced solutions to the demands of compliance. RegTech software can bring real-time insights, predictive analysis, and automation of processes protecting sensitive patient data. Benefits include regulatory reporting, risk management, compliance, and identity management/control driving increased efficiencies, cost savings, and visibility under frequent regulatory changes.

The HealthClean platform offers RegTech solutions. Documentation of cleaning and disinfecting work is accessible to all Regulatory Agencies. Frequency of cleaning, complete coverage, time spent, and other data is available by patient room and Crothall EVS associate over any period needed for analysis or review.

Pandemic Application

Verification of cleaning is critical in controlling infection transmission. HealthClean software confirms task completion by room and by staff member. Cluster mitigation can be achieved by verifying that Impression Areas (lobby, public restrooms, cafeterias, etc.) are properly disinfected as required by CDC Guidelines.

The HealthClean platform offers Contact-Tracing capabilities. The platform can identify all movements of a single Staff Member that may have become infected. The software clearly shows where the Employee worked and whom they may have come in contact with during their work period.

Crothall's HealthClean Program

Crothall brought the HealthClean program to three hospitals: University of Virginia Medical Center, University of Kentucky Medical Center, and MedStar Harbor Hospital. The ease of scheduling, managing, and studying the efficiency of environmental service professionals resulted in more than \$550,000 in annual savings across the three platforms and numerous other benefits that made support services more productive.

25%

UVA Medical Center now expects a 25% reduction in the duration of tasks handled the HealthClean.

UNIVERSITY OF VIRGINIA MEDICAL CENTER

Background: UVA

UVA Medical Center is a general hospital and Level I trauma center with more than 500 patient beds serving Charlottesville and the western Virginia region. Crothall has been managing EVS since 2007 and chose the campus as part of the HealthClean program in 2018. UVA Medical Center utilizes more than 300 full-time employees (FTEs) in EVS, managed by Crothall.

The hospital is a lean organization. It is based on a system designed to help teams of various skill sets deliver results with speed and efficiency. Many Crothall EVS managers are working towards certifications related to this working culture, which brings HealthClean in line with the hospital's processes and strategies.

Action

HealthClean was rolled out on three floors of the campus with stable HCAHPS score history and high discharge counts per day. Floors contain five or six units, often hosting up to 30 patients at any given time. Efficiencies driven by HealthClean reduced the required FTEs from 18 to 15 for these three floors.

The time required for the complete cleaning of a room was reduced by 25-30%. While each room and situation is unique, the reduction % between discharge and admission held steady across the units. The HealthClean software handled checklist distribution and task recording.



Reduced the required FTEs from 18 to 15



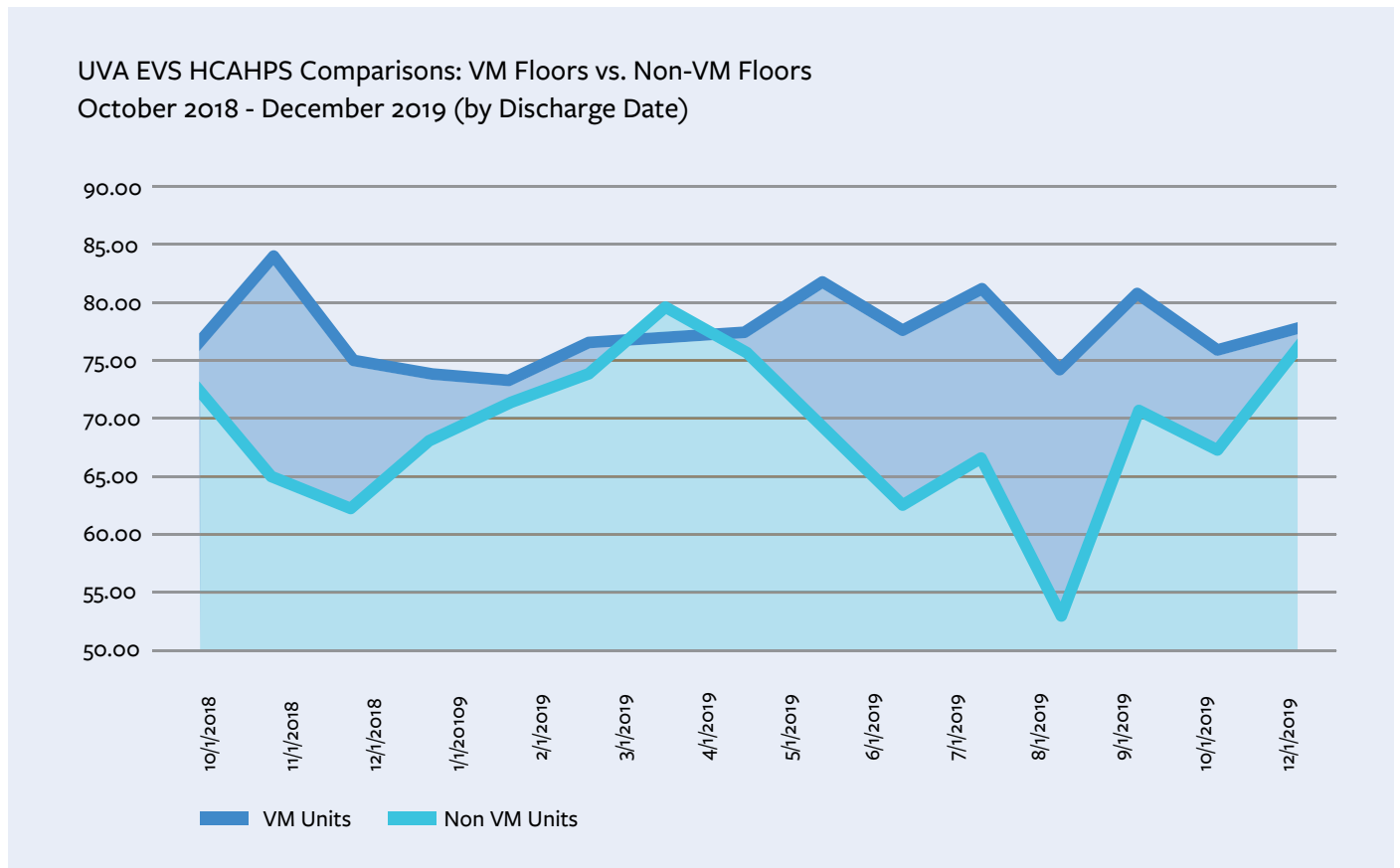
Reduced room cleaning time by 25-30%

The change with checklists alone saved EVS operations costs immediately. Each Housekeeping Associate requires one shift task assignment daily that seamlessly transitioned to tablet technology. The stress of managing the flow of paperwork has also been eliminated from EVS managers' life.

This improvement was steady and incremental with a consistent focus on process and efficiency trends tied to cleaning times since the pilot began. UVA Medical Center now expects a 25% reduction in the duration of tasks handled by HealthClean.

Benefits

The savings of 3.0 FTEs is more than \$100,000 annually. The budget for the FTE complement dropped by 16%. The reduction did not affect turnaround time in patient rooms or HCAHPS ratings related to cleanliness and patient satisfaction.



The savings allowed them to expand their UV program. The hospital uses ultraviolet light cleaning technology to reduce the incidence of hospital acquired infections (HAIs). The hospital was able to include all high-isolation and C. diff. infection treatment rooms for 24-hour coverage for the first time for potential HAI reduction.

UNIVERSITY OF KENTUCKY MEDICAL CENTER

Background: UK

UK HealthCare, the University of Kentucky's hospital system, instituted HealthClean in late 2019. The project blended perfectly with UK HealthCare's home-grown initiative to bring digital management to their internal tasks. Two units trained and instituted the software each week. Crothall manages a total of 330 Associates at UK.

Process validation is a large part of UK HealthCare's work culture. The institution has the goal of improving the speed and quality of environmental services for the satisfaction of patients as well as the inherent value of improved cleaning procedures.

325k

UK HealthCare saved \$325,000 annually, HCAHPS scores improved, and HAI incidence dropped with a specific reduction in C Diff.

Action

HealthClean brought the power of knowledge to a team eager to analyze it. Crothall managers were concerned about the potential gap between the time that EVS tasks take and the time that nurses notice a clean room. Analysis of room turnaround flagged issues like employees habitually spending more than the standards set for High Profile Cleaning. Those Associates were identified for additional training and coaching.

HealthClean made it easier for Crothall to correct problem processes. Overnight shift freshening and removal of trash was estimated at 90 seconds per room, but the results were not bearing that assumption. The software helped to determine that glove processes and other delays were adding another 60 seconds per room, which amounted to the time of two full-time employees per shift. Crothall managers were able to divert resources to compensate.

Bed throughput is a rapidly changing constant throughout the UK HealthCare system. This automation tool allowed Crothall managers to reassign technicians who are ahead of schedule by watching their work in real-time. The ability to move staff based on needs improved efficiencies as well as Clinical Staff satisfaction levels.



Training and coaching



Divert resources to compensate



Improved efficiencies and satisfaction levels



The Employee Analysis tab provides detailed analytics to determine how much time is spent per shift on productive tasks. The analytics focus is to bring visibility to the average idle time per task and the average number of tasks completed per day, reviewing individual performance over time. The graph at the bottom shows productivity trending positively over time.

Benefits

HealthClean efficiencies reduced 17 FTEs of the 98 FTEs. UK HealthCare saved \$325,000 annually, HCAHPS scores improved, and HAI incidence dropped with a specific reduction in C Diff. In addition, the Patient Experience team was able to identify rooms not cleaned and when they were cleaned as might impact visitation.

These EVS Teams complete around 180 assignments per day. Previously, all communications were documented or transmitted by paper, and each was accompanied by a one-page checklist. Now, all Task Lists and recordkeeping are recorded electronically, saving paper, time, and waste, driving sustainability efforts.

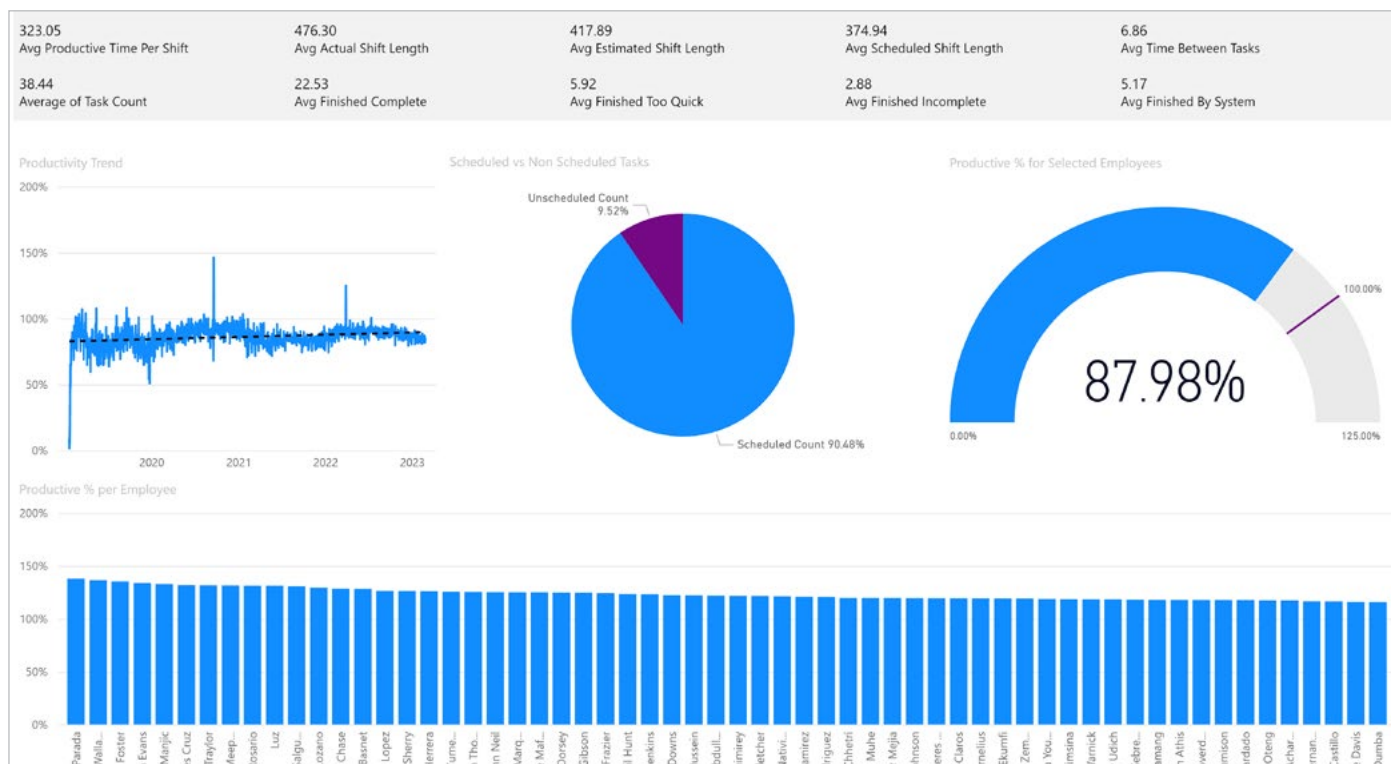
MEDSTAR HARBOR HOSPITAL

Background: MedStar

MedStar Harbor Hospital is a 150-bed acute care hospital in Baltimore, MD. The hospital became the nation's first full campus automated Workforce Management run by Virtual Manager 24 hours a day. Their three-shift system required a week of training and preparation for managers and front-line associates.

Action

HealthClean identified efficiencies available in both room and discharge cleaning. Cleaning time standards had been unitized based on traditional task assignments for an occupied room and discharge cleaning. HealthClean analysis allowed Crothall Management to reduce standard room cleaning by 20% and discharge cleaning by 25% with full compliance to room quality standards and no interruptions in quality expectations.



The Monthly Team Analysis tab provides analytics to identify the most productive employees and those that need additional support. Additionally, information on the average number of tasks completed per employee and idle times per task is also provided.

The software helped redistribute workloads throughout teams. Some full-time employees were three to four hours ahead of others on completing checklists. This information incentivized the other employees and allowed Crothall EVS managers to move the more productive Staff to needed locations and tasks.

Start times no longer involved guesswork for managers. HealthClean records tasks with timestamps so gaps in productivity can be spotted. Problems can also be identified as employee problems or allocation issues with the available data.



Redistribute workloads throughout teams



Gaps in productivity spotted

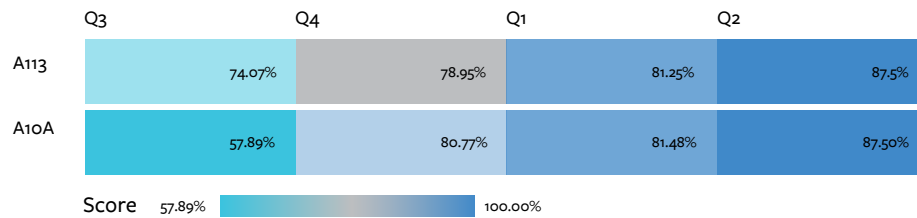
Managers can now make connections between EVS productivity and client-valued metrics such as HCAHPS scores by comparing time frames.

Benefits

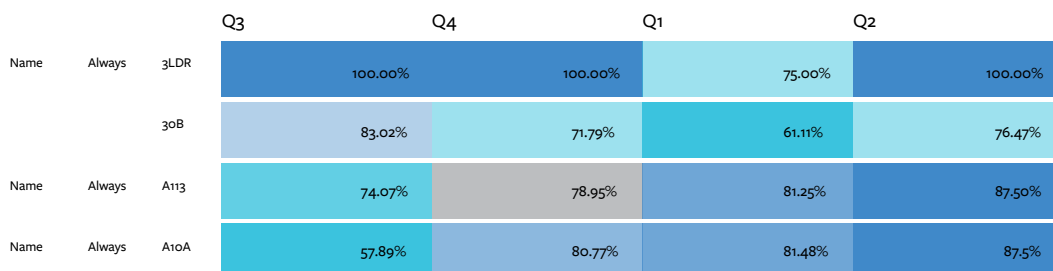
HealthClean helped trim the department by 10 percent. With just over 65 FTEs before the introduction of the software, Crothall was able to reduce headcount by 6.5 FTEs. Three of these positions received new duty lists to MedStar Harbor Hospital elsewhere – the other 3.5 FTE positions were removed saving \$133,000 annually.

Employee engagement has also improved with a data-driven approach. Managers can now make connections between EVS productivity and client-valued metrics such as HCAHPS scores by comparing time frames. All types of staff members receive recognition and performance-based rewards with their work records available at a glance.

HCAHPS Score for the higher productivity housekeeper by quarter



HCAHPS Score for the higher productivity housekeeper



“Our partnership with Compass One and Crothall Healthcare since 2018 has optimized workforce automation, creating new opportunities for growth and success. As the leader in workforce automation, we are honored to advance workforce management for hospitals and healthcare networks with the best-in-class support service provider.

Our solutions bring value to real-time data for intelligent staffing allocation models, regulatory governance, and digitized reporting where our partners can attain tremendous results. With a passion for workforce equity solutions, data reporting, efficiencies, and operational governance support, we continue to advance our product development for the healthcare and non-healthcare industries.”

— Tony Morocco, CEO, Virtual Manager



CONCLUSION

Workforce management automation is an obvious choice for administrators looking to save staffing costs, re-invest those savings and improve operations. As healthcare costs climb, hospitals and other healthcare providers are looking for new ways to make quality clinical services more efficient. Virtual Manager’s HealthClean is one of the first all-inclusive healthcare workforce management software platforms that unites all the disparate elements of workforce management.



Partner with Crothall Healthcare

Maintain a safe environment for patients in your healthcare facility with hospital-grade cleaning and disinfecting solutions. Contact us to learn more about the benefits of standardizing your outsourced environmental services to one provider with Crothall Healthcare.

“Virtual Manager has been a great addition to support the operational management of EVS at our hospital. This technology has allowed us to optimize our workforce and in real-time track and adjust throughout the day.”

— Mark Nussbaum, Chief Operating Officer,
Allegheny General Hospital

Contact Us



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