

Support Your Environmental Services Team with the Tools They Need for Success

Presented By:

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Who Am I

- Graduate of University of Southern Maine, B.S. Economics
- Been in the Healthcare field for 20 years, Bayer, Converge Dx, Diagnostic Laboratory Medicine, Hillyard.
- Been fortunate to have seen most pathogens under a microscope.
- CIC and T-CHEST certifications
- Former Portland Pirate Goaltender.
- President of The Samantha C. Smith Foundation: www.scsfund.org

Agenda

- Recruit and Retain EVS Staff plus other HCP's?
- How many FTE's does it take to clean and disinfect a facility?
- Cleaning Strategies to improve cleaning outcomes.
- Health Care Trends.

Questions, But Do you have the Answers?

- How many people should it take to clean our facility?
- How much product should we be using?
- How can we improve productivity?
- How do we improve quality?
- How do we meet compliance?
- How can we lower our cleaning costs?
- How can we train and retain staff?
- How do we reduce just one HAI?
- How do we stay tag free in EVS?


How do you Recruit NOW?

- LinkedIn – Maybe?
- Facebook – Maybe?
- Instagram – Should be!
- Snapchat – Ditto!!
- Mobile Friendly?
- Employee referral program?

Problem: State of Labor

- Employee's jumping ship
- Not enough Labor in the pool
- Sign on Bonus' elsewhere!
- Increase wages per hour!
- Better benefits!

The Competition



Se necesitan trabajadores horita! ¡Bono de contratación de \$ 5,000!

Walmart ★★★★★ 225,925 reviews
Raymond, NH 03077
\$21.95 - \$25.05 an hour - Full-time, Part-time
Employer actively reviewed job 5 days ago

[Apply Now](#)

Urgently hiring

Job details

Salary

\$21.95 - \$25.05 an hour

Job Type

Full-time
Part-time

Number of hires for this role

10+

\$45,000 + yr.

HEALTH FACILITIES CLEANER II



[Apply on Glassdoor](#) [Apply on JobzHQ](#) [Apply on Career Cactus](#) [Apply on Vacancypaper.com](#)

18 days ago Full-time No degree mentioned

State of New Hampshire Job Posting

NH Veterans Home

139 Winter Street, Tilton, NH 03276

Health Facilities Cleaner II

Position #19304

Labor Grade: 7

Salary Range: \$27,081.60 - \$31,470.40

40 hours / 2nd shift

• See total compensation information at the bottom of announcement.

The New Hampshire Veterans Home has a full time vacancy for Health Facilities Cleaner II.



Elevate Yourself thru EVS/Dietary

- Program Designer: Jeff Demers
- Solution Health System – Elliot Hospital and Southern NH Medical Center
- Career Path - EVS/Dietary staff to an advanced degree
- Benefits
- Pipeline of EVS/Dietary Staff
- Create a knowledgeable and loyal staff that are now LNA's
- A better awareness in Nursing RE: cleaning/disinfecting

Program Design

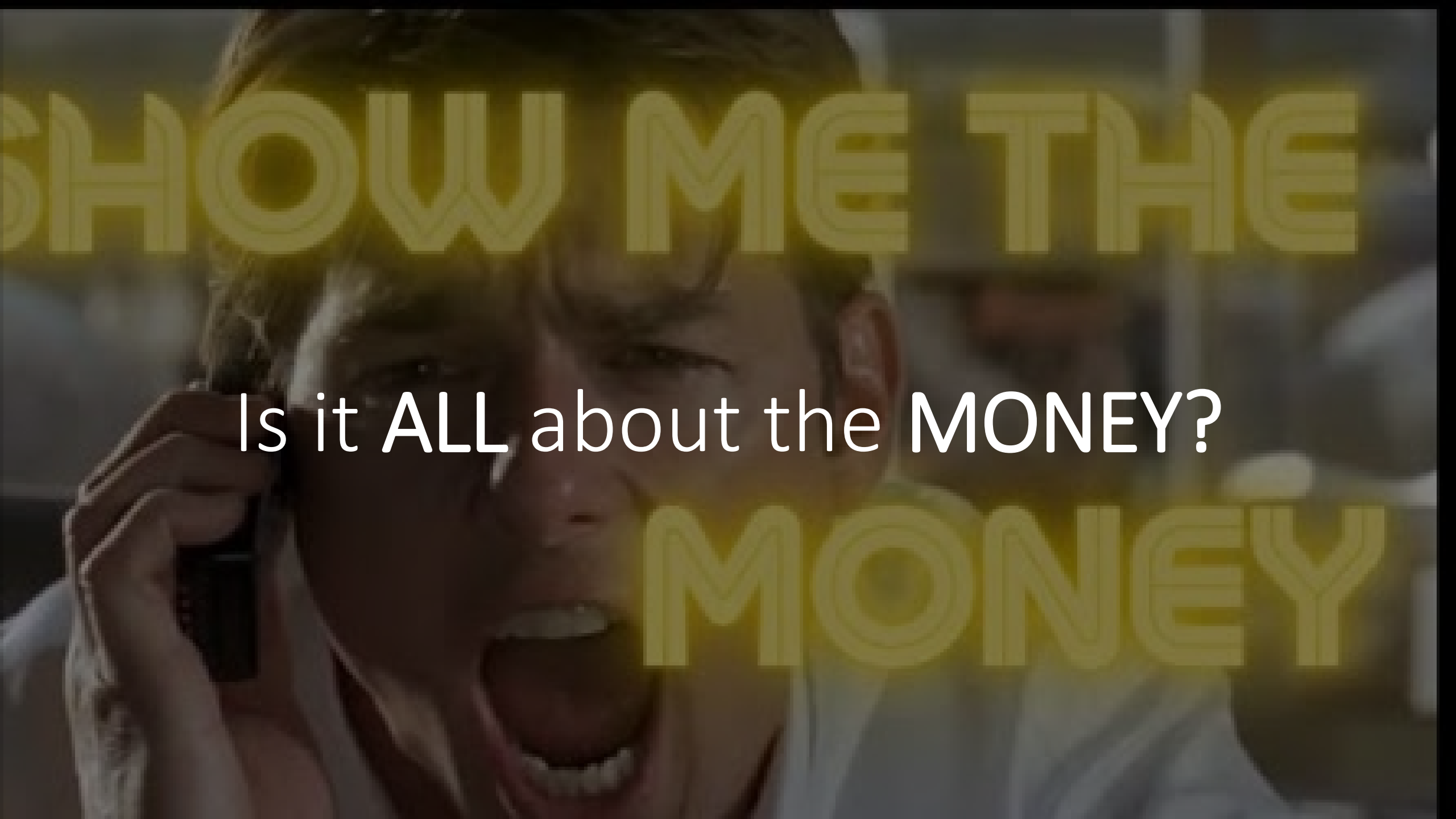
- EVS/Food Service Staff Full Time
- Min. 6 months employed
- Accelerated program for LNA
- Go to school during the day/paid
- Pass State Board
- Choice of position i.e., 11PM-7AM
- Shadow with nursing
- Trial period – 90 days
- 1-2 yr. commitment to work for Elliot

Results

- In 2 Years
- 12 EVS Staff completed LNA
- 4 are still with the Elliot Hospital
- 12 Dietary Staff completed LNA
- 10 are still with the Elliot Hospital

Starting Wage

- Elliot Hospital \$17/hr.
- Kendal at Hanover \$17/hr.
- DHMC \$17/hr.
- Something about \$17
- EH -Week of 9-20-2021
- 6 Dietary Staff Hired
- 5 EVS Staff Hired



Is it ALL about the MONEY?

How can we train and retain staff?



What is the Average Cost per HAI?

- A. Less than \$2,000 per incident?
- B. Less than \$5,000 per incident?
- C. Less than \$1,000 per incident?
- D. Between \$6,000 - \$30,000 per incident?

Manufacturing Institute's Center for Manufacturing Research and the American Psychological Association – Study July 2021

Eight in 10 workers said they stay with their employer because they enjoy the work.

Nearly 7 in 10 employees (69 percent) under the age of 25 indicate they stay with their current employer because of training and development programs offered.

While competitive pay and benefits are important, work that increases positive experiences on the job improves worker retention.

Ensuring every employee understands how their efforts are linked to the company's overall success is one of the most successful worker-retention strategies.

Employees who feel valued are much more likely to be engaged with their work, less likely to feel stressed during the workday, and less likely to leave their jobs.

Retention of Employee's

- **Training Program for EVS staff**
- **Quality Control App – Who is doing a great job?**
- Allow a longer lunch break or an extra break.
- Offer to pay to have workers' car or home cleaned sometimes.
- Award workers a gift card that will pay for a subscription to Netflix or other another streaming service.
- Pay for a week's or month's subscription to a meal delivery service. Hello Fresh.
- Give workers paid time off to volunteer.
- Sign employees up for a laundry service.
- Sign employees up for cooking lessons.

How many people should it take to clean a facility?

Case Study: Hunt Community

- Total Sq/ft 208,000
- Cleanable Sq/ft 136,611
- EVS Staff Consists of:
 - 1 Float – Cover PTO
 - 1 Floor Tech
 - 3 for SNF
 - 3 for the Apartments
 - 2 for Laundry

HUNT COMMUNITY
Total Fixtures (Enterprise)

HUNT COMMUNITY
Total Fixtures (Enterprise)

| <u>FIXTURE</u> | <u>FIXTURE COUNT</u> | <u>FIXTURE</u> | <u>FIXTURE COUNT</u> |
|-----------------------------|----------------------|--------------------------------------|----------------------|
| Urinals | 2 | Hot Tubs | 1 |
| Toilets | 215 | Trash Cans, Small | 187 |
| Sinks | 320 | Trash Cans, Large | 22 |
| Computers | 73 | Trash Cans, Small Recycle | 7 |
| Mirrors | 311 | Trash Cans, Large Recycle | 7 |
| Dispensers, Hand Soap | 105 | Glass, Pieces Of (1 Minute Per Each) | 1,985 |
| Dispensers, Paper Towel | 104 | Chairs | 435 |
| Dispensers, Toilet Paper | 109 | Desks | 870 |
| Dispensers, Sanitary Napkin | 2 | Tables | 396 |
| Trash Cans, Sanitary Napkin | 7 | Vending Machines | 6 |
| Drinking Fountains | 20 | Chairs, Upholstered | 1,359 |
| Workout Machines | 12 | Hand Dryers | 8 |
| Equipment | 6 | Smartboard | 1 |
| Beds | 181 | Dispensers, Hand Sanitizer | 13 |
| Tubs | 85 | | |
| Shower | 123 | | |
| Mats, Walk-Off | 4 | | |

HUNT COMMUNITY
Total Square Feet (Enterprise)

| <u>Area</u> | <u>Floor Type</u> | <u>Total Square Feet</u> |
|---------------------|----------------------|--------------------------|
| Beauty Shop | Finished Ceramic | 869 |
| Beauty Shop | Finished Resilient | 43 |
| Chapel | Carpet | 378 |
| Commons Area | Carpet | 6,977 |
| Commons Area | Finished Resilient | 80 |
| Dining Room | Carpet | 5,229 |
| Dining Room | Finished Synthetic | 1,332 |
| Dining Room | Finished Ceramic | 725 |
| Elevators | Carpet | 114 |
| Elevators | Finished Resilient | 70 |
| Elevators | Unfinished Synthetic | 55 |
| Entrances / Lobbies | Carpet | 3,423 |
| Entrances / Lobbies | Finished Ceramic | 1,144 |
| Exercise Rooms | Finished Resilient | 872 |
| Exercise Rooms | Carpet | 392 |
| Hallways | Carpet | 22,778 |
| Hallways | Finished Resilient | 970 |
| Kitchen | Finished Ceramic | 2,021 |

39K
-
~

HUNT COMMUNITY
Total Square Feet (Enterprise)

| <u>Area</u> | <u>Floor Type</u> | <u>Total Square Feet</u> |
|-------------------------|---------------------|--------------------------|
| Laundry Room | Finished Resilient | 509 |
| Laundry Room | Finished Ceramic | 100 |
| Nurse/Physician Station | Carpet | 101 |
| Offices | Carpet | 4,003 |
| Offices | Finished Resilient | 378 |
| Offices | Finished Ceramic | 200 |
| Patient Room (One Bed) | Carpet | 7,074 |
| Patient Room (One Bed) | Finished Ceramic | 1,028 |
| Resident Rooms | Carpet | 58,080 |
| Resident Rooms | Finished Ceramic | 13,495 |
| Resident Rooms | Finished Resilient | 157 |
| Restrooms (Multiple) | Finished Ceramic | 1,030 |
| Restrooms (Single) | Finished Ceramic | 802 |
| Restrooms (Single) | Finished Resilient | 232 |
| Shower Rooms | Finished Ceramic | 649 |
| Stairwells / Landings | Finished Concrete | 600 |
| Stairwells / Landings | Finished Hard Floor | 286 |
| Stairwells / Landings | Finished Resilient | 150 |

69K
→

How Many FTE's Do You Think it Will Take to Clean Hunt Community?

- A. 5 or less FTE's
- B. 10 or less FTE's
- C. 15 or less FTE's
- D. 20 or less FTE's
- E. 25 or less FTE's

AHE – Association of Healthcare Environment

Types of Staffing Analysis Models

- **Directly Proportional Staffing:**
Strip/Recoat, Vacuum, Auto-scrubbing, Dust mopping
- **Linearly Related Staffing:**
Spot Floor Care, Utility Closets, Nurses lounge.
- **Not Related Staffing:**
Terminal/Discharge Cleaning,
Entrance way Door/Glass/Trash

Definitions of Models

- Can be used where cleaning of areas is directly proportional to the size or sq/ft of the area.
- Areas where the cleaning time is related or linked to the sq/ft, but not directly tied to sq/ft.
- Areas not related to sq/ft

ISSA – International Sanitary Supply Assoc.

A. 612 items for Cleaning Times

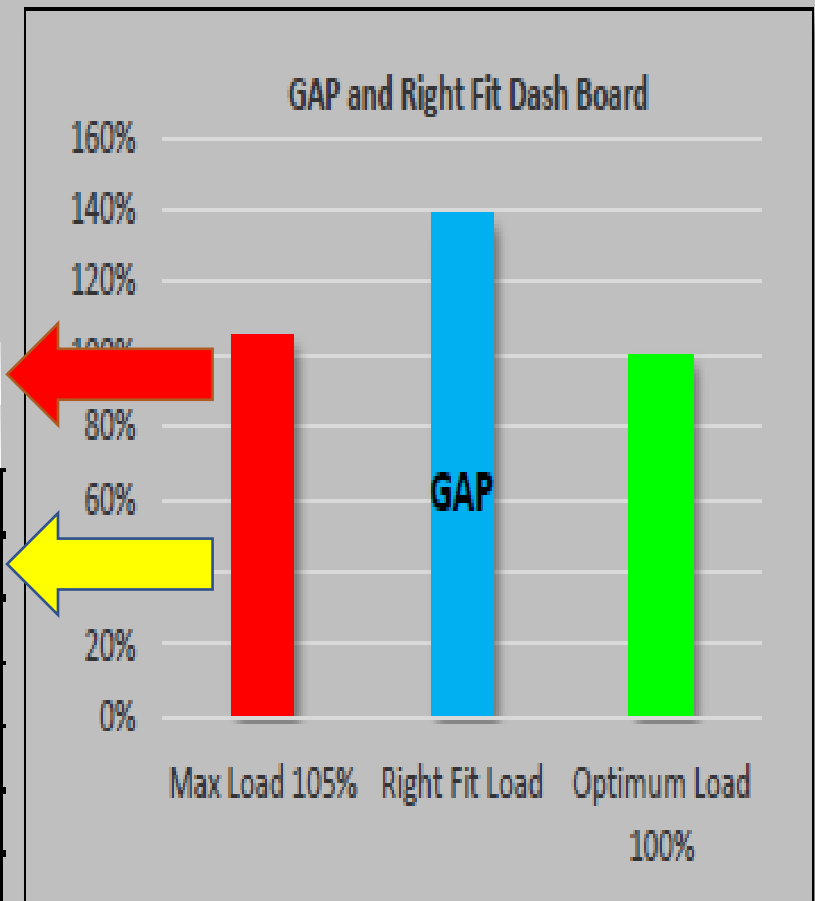
B. Single Task Example: *How many minutes does it take to mop 1,000 cleanable square feet of floor with a 14-inch flat mop and dual-chamber bucket?*

C. Bundled Tasks Example: *How many minutes does it take to spot clean 2,000 cleanable square feet, including emptying trash and relining the can, spot wiping, spot dusting, and picking up debris from the floor?*

D. Fixture Method: *How many minutes does it take to clean a restroom with 10 fixtures, including emptying trash; cleaning and disinfecting fixtures, mirrors, and partitions; replacing supplies; dusting; sweeping; and wet mopping the floor?*

GAP Analysis and Right-fit Dash-Board

| | | |
|---|--|---------------|
| Customer | Routine Cleaning Labor Hours: | 20,744 |
| Hunt Community | Routine Non-Cleaning Hours: | 4,810 |
| Prepared For: | Routine Break Hours: | 2,340 |
| Cindy Young | Current FTE's from CCAP Summary: | 9.00 |
| Building | Recommended Daily FTE's: | 13.41 |
| Hunt Community | Current Load | 149.0% |
| Date | Labor Hours Optimized | (5,193.00) |
| 10/22/2021 | Right-Fit Cleaning Plan - FTE Recommended | 12.44 |
| Enter number of cleaning days loaded in software Below: | Right Fit Load | 138.3% |
| 260 | Labor Savings @20.00/hour From Optimizations | -\$103,860.00 |
| | High Touch Disinfection - FTE Impact | 1.53 |
| | Discharge Annual 12 Month Historical Hours | 167 |
| | Weekend Cleaning Hours | - |



| Tasks | Area | Qty. | Variable size | Diff. Factor | Task Frequency | Annual Labor Hours | Right Fit Adjusted | New Frequency |
|-------|------|------|---------------|--------------|----------------|--------------------|--------------------|---------------|
|-------|------|------|---------------|--------------|----------------|--------------------|--------------------|---------------|

Switch all vacuums to 14 inch - 2-motorup-rights
 Swich vacuums in hall to ATV 24

→ -2037.00
 -3156.00

Understanding the Gaps

Infection risk

2X

A patient admitted to a room that previously housed a patient colonized or infected with a pathogenic bacteria, which included MRSA, VRE, or *C. difficile*, was **twice as likely to be infected with the same pathogen**.¹

Compliance

<22%

A recent study reported **less than 22% full compliance with contact isolation precautions** in CDI patient rooms²

Time

25-30%

EVS workers never have enough time to perform cleaning³

- 30% - not enough time for daily cleaning
- 20% - not enough time for discharge cleaning

Cleaning Efficacy

<50%

Fewer than 50% of hospital room surfaces are adequately cleaned and disinfected.⁴

1. Mitchell BG et al. *J Hosp Infect.* 2015; 91(3):211–217
2. Yanke E et al. *Am J Infect Control.* 2015; 43(3):241–247.
3. Bernstein D A et al. *Infect Control Hosp Epidemiol.* 2016;13:1–4.
4. Carling PC, Huang SS. *Infect Control Hosp Epidemiol* 2013; 34(5):507–513.

Findings?

Already In Place

- Microfiber Program
- 1 FTE as a Float to Cover PTO
- Interim Carpet Cleaning
- Floor Tech Program

Things to Improve Productivity

- 14" Dual Motor Vacuum
- Stand On iChariot 24 ATV
- Training & Education to Clean Efficiently
- Resident Room T & E
- CoBot Mechanization

Mechanization

Karcher KIRA CV 60/1

18,000 sq/ft per hour

3.5 – 4.5 hour run time

Powered by Brain
Software

.22-.26 FTE to run

KÄRCHER

MEET THE VACUUM WITH A MIND OF ITS OWN.

LIMITED STOCK

The **KIRA CV 60/1** autonomous vacuum allows you to clean smarter than ever before. An intuitive cloud based AI operating system catapults performance and regard for safety beyond expectations.

CLEAN SMARTER

- **PRODUCTIVITY** <<<
 - Perfect cleaning route every time.
 - Clean large scale areas without supervision.
 - Cloud based AI constantly learns and improves performance.
 - Lithium-Ion battery for increased runtime.
- **SAFETY** <<<
 - Smart Detection System safely avoids people and obstacles.
 - Over 80+ Billion sq. ft. safely cleaned.
- **EFFICIENCY** <<<
 - Improved consistency and coverage results in an increased ability to meet the scope of work and customer satisfaction.
 - HEPA filtration facilitates healthier work environments.

Guaranteeing the safety & integrity of your business is key. In the past, you've relied solely on traditional cleaning solutions for your facility. Today's climate finds business faced with turnover, unreliable coverage and incomplete reporting. **Now**, KIRA combines a human concern for safety with the precision and consistency of artificial intelligence.

BE ONE OF THE FIRST TO DISCOVER KIRA TODAY.



Tennant 380 AMR
powered by Brain

33,440 sq/ft per hour

.26 FTE to run


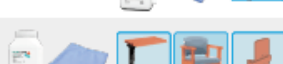



Best Practice Resident Room/Bathroom Cleaning

- Cleaning Process: Hi/Low, Left/Right, Clean/Dirty
- Written Instructions for: IL, AL, SNF
- Proper Disinfectant/Tools
- Microfiber: Change after every room
- Patient Equipment: Who is responsible?
- Checklist
- Validation
- Recognize errors are inevitable when people are involved

HILLYARD LTC - **C.DIFF** DISCHARGE CLEAN **HILLYARD**

Perform hand hygiene & check posted precaution signs. Follow precautions as indicated. Don proper PPE before entering the room.
*Follow protocol using **PurTab** or **PurOne** EPA Disinfectant for C.diff, diluted at 4306PPM.*

- 1 REMOVE**
Trash, Infectious Waste, Used Items, Open Containers, etc. from room. Disinfect trash can. 
- 2 REMOVE**
Soiled Linens, Gowns, Towels, Washcloths, etc. 
- 3 HIGH DUST**
Air Vents, Door Frames, Curtain Rods, Recessed Lighting, etc. 
- 4 SPOT CLEAN**
Walls, Vertical Surfaces, Counters, Ledges, Sills, Glass, etc. 
- 5 CLEAN/DISINFECT BED**
A. Bed Rails, Controls, Headboard, Call Bell & Cord, Remote
B. Mattress (1 half at a time) & Coated Pillows
C. Front Panel, Footboard. Lift and clean under. 
- 6 CLEAN/DISINFECT DRESSER/CLOSET**
Including Inside & Outside of Drawers and Cavities 
- 7 CLEAN/DISINFECT**
Overbed Table, Nightstand, Arm Chair, Phone, Door & Cabinet Handles, Light Switches, Mirrors, BP Cuff & Tubing/Infusing Poles, if applicable 
- 8 CLEAN/DAMP WMP**
Air Vents & Returns 
- 9 CHECK PRIVACY CURTAIN**
For visible soiling. Report or replace as needed. 
- 10 REMOVE/REPLACE PPE**
Remove gloves, sanitize hands, don new gloves. 
- 11 MAKE BED** 

ALLOW 4MIN CONTACT TIME FOR PURTAB/PURONE

ALWAYS wear the appropriate Personal Protective Equipment. Saturate microfiber cloth in utility pail, wring it, then fold into 8-sided cloth. **DO NOT** rinse and reuse cleaning cloths. When soiled, use a new one. Allow 4 minute contact time for proper disinfection. Never place your hand inside of a trash container; pull the liner out, then tie.

CDC High Touch Points



- Bed Rails
- Bed Frames
- Tray Table
- IV Poles
- Call Box
- Bedside Table
- Telephone
- Inner Door Knob
- Light Switch
- Sink
- Chair Arm Rest
- Bathroom Hand Rail
- Toilet Handle/Seat
- Handles/Door Knob
- Equipment Surfaces

Healthcare Trends

- Because increasing evidence suggests that the environment plays a role in transmission of health care-associated infections, more attention is focusing on environmental cleaning and improving its efficacy.
- Creating and sustaining a successful cleaning and disinfection program should include several key components using a bundle approach and requires ongoing commitment within the institution.

American Journal of Infection Prevention (AJIC)



Understanding the Healthcare Challenge

HEALTHCARE ACQUIRED INFECTION (HAI)

- HAIs account for:
 - Estimated 2 million infections annually
 - 100,000 associated deaths each year
 - 1 in 20 hospitalized patients will develop and HAI
 - 1 in 43 nursing home residents will develop and HAI
- HAIs affect 5 to 10% of hospitalized patients annually



"Let me guess...it's contagious!"

Healthcare Challenge

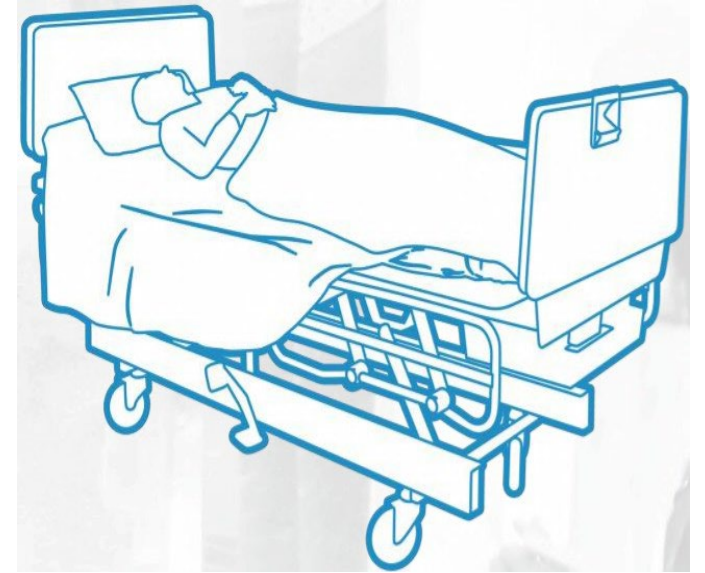
- HAIs: The Human Toll

- Loss of wages
- Loss of productivity
- Legal costs
- Hardship on families
- No price can be assigned to the loss of a loved one due to a Hospital Acquired Infection



Healthcare Challenge

- 5.5 room entries per hour



Healthcare Challenge

Patient room activity...

Average number of room entries 5.5/hour

Average number of people in room during waking hours 82.5

(15 hours * 5.5/hr = 82.5 people)

What did they touch...

Bedrails = 3.1

Over bed table = 1.6

IV pump = 1.4

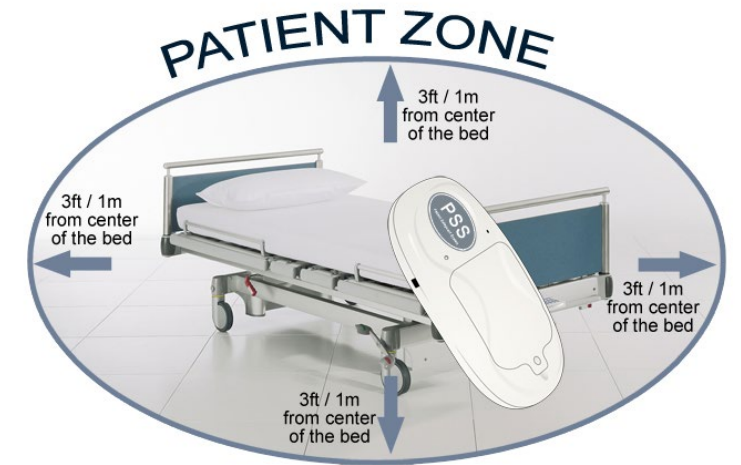
Bed surface 1.3



Cohen et. Al., "Frequency of patient contact with healthcare personnel and visitors: implication for infection prevention", Jt Comm J Qual Patient Safety, 2012;38 (12): 560-565.

Healthcare Challenge

- Opportunities for pathogen exposure...
 - Room entries per hour = 5.5
 - Bedrail contacts per hour = 17.1 (5.5 * 3.1)
 - Bedrail contacts per 15-hour patient day = 256
- We should not be surprised that surfaces in the patient zone contribute to pathogen exposure given the frequency of contact and the limited disinfection.



Cohen et. Al., "Frequency of patient contact with healthcare personnel and visitors: implication for infection prevention", Jt Comm J Qual Patient Safety, 2012;38 (12): 560-565.

Healthcare Challenge

- Number of times bedrail is disinfected by EVS = 1
 - Probability of EVS disinfecting the bedrail = 50%
- Number of times per day bedrail is disinfected by clinical staff = ?? (probably zero)
 - Probability of clinical staff performing hygiene = 40%



Gauthier, "Collaborate Environmental Hygiene", AHA/AHE, 2017



Guidelines for Disinfection in Healthcare Facilities



Available on CDC web page

<http://www.cdc.gov>



Questions?

