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2020

## Protect & Disinfect: COVID Upcycling

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## **REPURPOSING DURING A PANDEMIC**

### **TEAM MEMBERS**

Ilvy Cotterell, Associate Professor, Department of Orthopedic Surgery, VCU Health  
Collin Cox, Administrative Coordinator, Center for Public Policy, L. Douglas Wilder School of Government and Public Affairs  
Parthenia Dinora, Associate Director, Partnership for People with Disabilities, School of Education  
Zachery Hilpert, Director, Interdisciplinary Studies, University College  
Veronica King, Executive Director, Payroll and Tax Services, University Controller's Office  
Carmen Rodriguez, Associate Professor of Teaching, Department of Biology, College of Humanities and Sciences  
Alexis Shockley, Art Specialist, Arts in Healthcare, VCU Health

*Project Sponsor: Thomas Briggs, Assistant Vice President, Safety and Risk Management, Division of Administration*

### **PROJECT ABSTRACT**

Team Bridge Builders' overall goal for the 2020 VCU Leadership Development Program project was to find a common need between the Health System and the University that could be met using existing items that were discarded as waste. After exploring several ideas and with the onset of COVID-19, Team Bridge Builders settled on our final project idea of repurposing huck towels to be used during the pandemic to aid in cleaning and sanitizing. Huck towels are part of surgical "packs" that include items that are required during surgery. Once surgery is complete, the unused items are discarded. These discarded items may include as many as 8-10 towels per pack.

### **RESPONSE TO COVID-19**

As plans were being made for faculty, staff, and students to return to campus, one of the foremost questions was how do we slow the spread of the virus in addition to wearing masks — sanitize surfaces. The next question was what supplies are needed to best serve this purpose. Cleaning solutions were provided, but there was a prominent void of a quality product to efficiently and effectively wipe surfaces. Team Bridge Builders' project provides a cost-effective solution to this problem.

### **PROJECT GOALS**

1. Find a useful purpose for discarded, clean, unused towels from VCU Health that would result in a no-cost supply of cleaning products for faculty, staff, and students at VCU.
2. Encourage faculty, staff, and students to adequately clean and sanitize their space by providing a useful and accessible tool, thus slowing the spread of COVID-19.
3. Provide a service that would be useful to both the Health System and the University.

### **PROJECT STRATEGIES**

Bridge Builders' focal point for the team project was to find an area where a substantial amount of waste existed and could be repurposed into a usable product. Specifically, the team wanted the project to be sustainable, community focused, recycling focused, and fiscally responsible. With the onset of the COVID-19 pandemic, Team Bridge Builders quickly set our efforts to repurpose discarded, yet sanitary materials into much-needed face masks. As time progressed and facemasks became more accessible via several avenues including other efforts at the Health System and the University, Team Bridge Builders again adjusted the end product. Settling on the focus of sanitation, all efforts were turned towards repurposing the huck towels accessible from the Health System. Team Bridge Builders met with several key people at the Health System and

the University to determine a need that would best be met by the repurposing of the sanitary huck towels. Through these interactions, Team Bridge Builders was able to determine the best options for securing the towels, storing them for pick up, and moving them to the campus distributors.

### **ACTIONS STEPS**

- Identified a cross-campus need that could be solved using unused supplies on hand.
- Coordinated with the hospital operating rooms to collect the unused towels.
- Secured receptacles and created signage for towel collection.
- Worked with facilities to determine the best option to supply the towels to locations on campus.
- Collected the towels to deliver to recipients.
- Initially, the huck towels will be delivered to the Gladding Residence Center III to be used to wipe down surfaces for students in isolation.
- Continuing to work with facilities on a routine mechanism for towel distribution to residence halls and other areas of need.
- Consider partnerships with community businesses (i.e., Puritan Cleaners) to launder the towels so that they can continue to be reused.

### **OUTCOMES**

The anticipated outcome of the project is to provide the unused towels to student dormitories and faculty and staff work environments. Team Bridge Builders expects the towels to be used to effectively clean these areas. Team Bridge Builders further expects some may be able to continue to utilize the towels beyond first use by laundering them. Whether used as a one-time solution and discarded or laundered and reused, this project allows the Health System and the University to make a supply of towels readily available to faculty, staff, and students without incurring any additional costs to either organization.

### **SUSTAINABILITY**

Key stakeholders in the project are persons at the Health System who are in a position of authority to allow the towels to be collected for repurposing across both campuses. In addition, stakeholders at both the Health System and the University are needed to agree upon absorbing a reasonable cost to have the towels laundered for future use. Team Bridge Builders would like to see this idea come to fruition as this would allow an abundant daily supply to be used in keeping the campuses cleaned and sanitized, most specifically the student areas. To further sustain the project, Team Bridge Builders would like to see other areas of distribution explored such as vending machines, return to campus kits, distribution during Weeks of Welcome and within the residence halls as well as distribution to faculty for use in their classrooms.

### **FINANCING AND RESOURCES**

This project did not require Team Bridge Builders to secure any financing as the huck towels are part of the necessary supplies ordered for surgical operations. As the project moves forward and to further offset unnecessary waste, Team Bridge Builders is exploring the idea of securing financing to have the towels laundered to increase the usage instead of discarding after one use. Team Bridge Builders' expectation to further this goal would be to find a local partner that would be able to offer laundering services for a cost that is less than the estimated cost of supplying paper towels to all offices, residence halls and community areas across both campuses. The other alternative would be to distribute the towels to faculty, staff, and students in the same manner as the VCU-issued face masks were distributed, leaving the owner to launder the towels for ongoing use.

## **RECOMMENDATIONS**

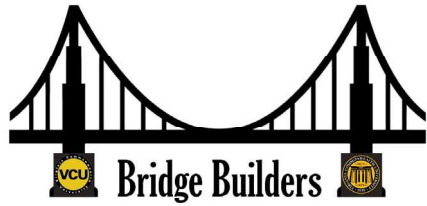
Team Bridge Builders recommends the towels be distributed via facilities management or another department that has access to reliable and consistent transportation to gather and deliver the towels across both campuses. Team Bridge Builders also recommends securing a laundry service that may be able to collect the soiled towels, launder them and return them to the campuses for further use at a reasonable cost or via a mutually beneficial partnership.

## **FINAL PITCH**

The overall goal of Team Bridge Builders was to find a needed purpose for products wasted at the hospital. This project is timely with the onset of COVID-19 where cleaning, disinfecting, and sanitizing are top priorities for VCU as it works diligently to maintain the university open for our students. The item that was selected to be repurposed met this goal successfully for the following reasons. The huck towels are durable. There is no additional cost to have access to the towels. They promote cleaning by taking the guesswork out of what someone can find to clean with and answer the question of whether they have to buy their own cleaning 'rags' or rely on the use of the brown paper towels that are not as durable or effective and are an added cost to the University.

Repurposing the clean and durable cotton towels from the Health System reduces waste, while aiding the University in the effort to effectively slow the spread of COVID-19. It may continue to have a significant continued effort post COVID-19 slowing regular flu viruses which may result in fewer employees taking sick days.

# Repurposing During a Pandemic



Fulfilling a need that bridges the two campuses VCU & VCU Health  
Initiative - OneVCU

# Team Member Introductions



**Ivy Cotterell, MD**  
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**Collin D Cox, MBA**  
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**Parthenia Dinora, PhD**  
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Associate Professor of Teaching, Department of Biology, College Humanities & Sciences, VCU



**Alexis Shockley, MFA**  
Art Specialist, Arts in Healthcare, VCU Health



**Team Sponsor**  
**Thomas Briggs, Assistant Vice President**  
Safety & Risk Management, VCU

## Our Idea Path and Evolution



## The COVID-19 pandemic created a NEED for...

### Cleaning and Sterilizing . .

- o With what?
- o Where to obtain in mass supply?
- o How much will it cost?



## Our Solution



Students returning to campus are responsible for the frequent cleaning and disinfecting of their living spaces to help limit and prevent the spread of COVID-19. Clean, unused towels are thrown away every day in operating rooms at the VCU Health System.

These towels are being collected and distributed to VCU residence halls, providing students with a free and accessible resource for the daily cleaning and disinfecting needed to reduce the spread of COVID-19.

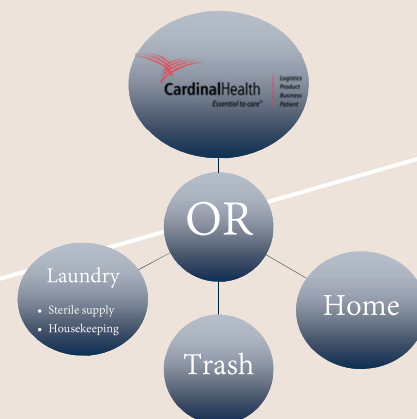
### Goals in Action

Reduce Waste by Repurposing



## The Journey of the Huck Towel

A huck towel is made from a pure cotton fabric favored for cleaning surgical instruments thanks to its durability. Window washers, car detailers and cleaning companies also use these long-lasting, absorbent towels, as they tend to hold up well even after many washings. "Huck" refers to the style of weave used to make the fabric.



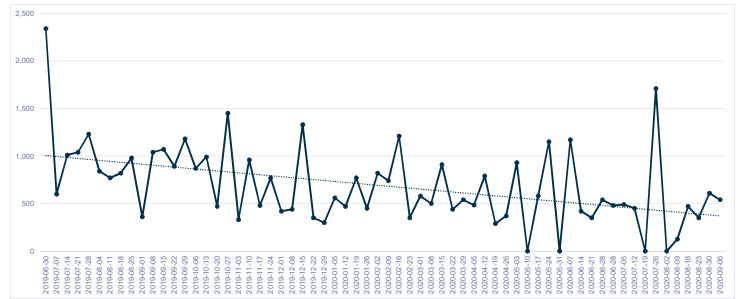


- For minor procedures (e.g hand, eye) done in the operating room, regular “packs” are used, containing many items not needed.
  - Towels, dressings, sheets
- These items are discarded after every procedure
- ~10 towels come in every pack
- 2-4 are used

### Huck Towels in the Surgical Setting at VCU Health

## Blue Towels Being Laundered

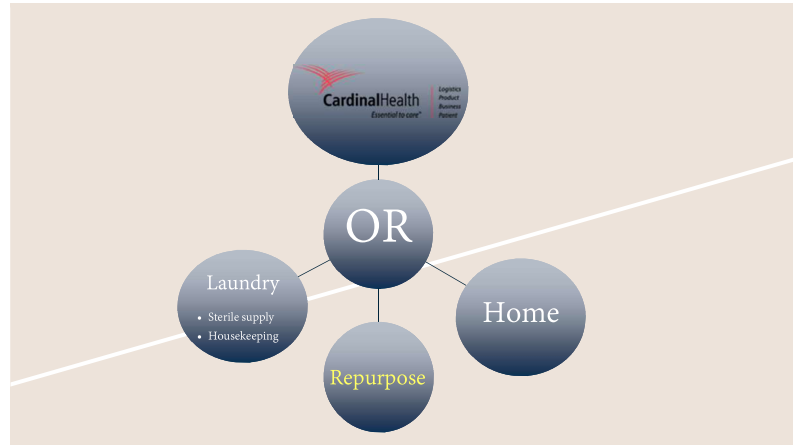
Data for every 2 weeks x 14 months



Every month, VCUHS purchases on average **38,501** towels, totaling **462,012** annually and at **.35 each**, spends **\$161,704.20**.

Only **3,664** towels make it to the laundry, totaling a mere **43,971** annually for only **9.5%** of what is purchased.

Though VCUHS uses some of these towels, **\$146,314.35** worth of reusable towels are being thrown away.



## Action Steps

1. Make connections
2. Find out options compared to needs for towel distribution on campus
  1. 10 vending machines on campus with masks, virex spray, etc.
  2. Return to Campus kits
  3. Table at Welcome Week
  4. Faculty for classrooms
  5. Residence Halls
3. Decide on plan based on allocated information



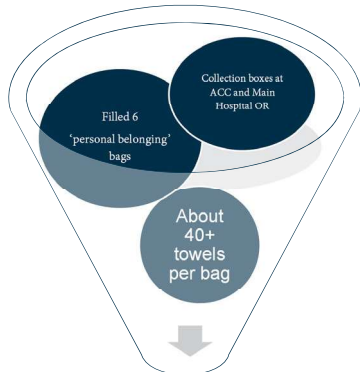
## Making It Happen

- **Communication**
  - Coordinated with unit leaders to obtain support of project
  - Leaders helped to spread the word of our repurposing efforts
  - Aided the increased number of deposited towels
- **Collection**
  - Labeled boxes and tubs were placed in various surgical areas of the OR at VCU Health

*Please deposit all unused blue towels here.*



## Initial Collection Results



approximately 240 towels collected in 1 week

## Distribution

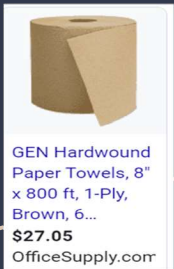
Collaborated with VCU Residential Life and Housing to determine the need and delivery logistics.

Initial Delivery: Gladding Residence Center III to be used to wipe down surfaces for those students in isolation. *GRC III will be used for Isolation Housing for the 2020-2021 academic year.*

8 bags with over 50 towels per bag were delivered (~400 total).



## Cost Savings



GEN Hardwound Paper Towels, 8" x 800 ft, 1-Ply, Brown, 6...  
\$27.05  
OfficeSupply.com

- > Paper rolls average \$29 per case containing 6-12 rolls
- > Each office uses approximately 1 roll per week
- > 1 case lasts 3 months
- > 1 case purchased every 3 months at \$29 = \$116 annually per office
- > Annual cost per # of office on the Health System campus and the Monroe park campus



No additional cost to the Health System or University to gain supply

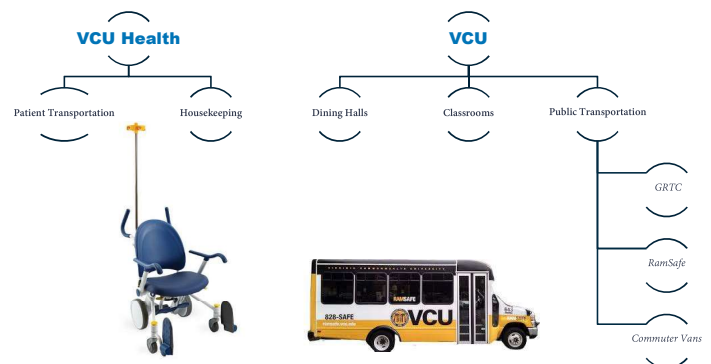
## Barriers Along the Way

- COVID-19
  - Competing priorities with team members
  - Limited resources in securing help from other departments
- Coordinating with / finding appropriate point of contacts on campus
- Transportation of collected rags from the Health System to the Monroe Park campus



## Next Steps

- Secure better modes of transport from the Health System to the University
  - > Allocate volunteers
- Place collection boxes at other VCUHS units
- Begin tracking the reduction in huck towel waste
  - > Adjust the overall amount ordered
- 'Give to Get' initiative with local cleaners
- Distribute towels more broadly across campus



## Future Directions