



# VCU

## Application of Whole Health Using the Donabedian Model During COVID-19 at Veteran Administration Facilities Lynnsey Boldt, Dr. Christine Booker CHS Department of Kinesiology and Health Science

### Abstract

Veterans Affairs is a specialized form of healthcare as it is dedicated to those who have provided military service and those affiliated with them. The aim of this project is to define three forms of healthcare administration; holistic health, person centered care, and whole health, and identify the practice at the VA. The Donabedian model will be used to analyze the application of the Veterans Affairs administration of health care (Whole Health). This project seeks to identify what stages of the Donabedian Model continued to be assessed at the flagship sites during Covid-19.

### Introduction

Holism, termed by Christian Smutz, is the practice of viewing the body as a whole rather than as individual parts. Maintenance of the body is accessed in the form of a patient's physical, social, mental, and spiritual well-being because ill symptoms are the result of something being off balanced. Patient centered care, first introduced in the 1900's by Carl Rogers, serves the objective that the patient is the expert in their care and is given the power to choose what is right for them. The goal of patient centered care is that giving a patient the power to choose will increase patient compliance and therefore, increase the patient's quality of life. Finally, whole health began implementation in 2017 and embodies health in all areas- physical, social, emotional, and spiritual.

### Methodology

This project seeks to identify what stages of the Donabedian Model continued to be implemented at the Veterans Affairs locations initially selected to implement Whole Health, termed flagship sites, during Covid-19. The Donabedian model provides a framework for examining health services and evaluating quality of health care through three measures; structure, process, and outcome. The structure measure is the process a facility will instrument to provide high quality-care and is the basis for the process measure (what will be done to implement high-quality care) and the outcome measure (the impact the care will have on the patient). A patient coming to the VA for care will be asked to complete a personal health inventory as means of assessing eight areas of self-care identified in the VA's Circle of Health depicted below. The process of identifying the patient's desires aligns with the Donabedian's structure measure.



### Results/Discussion

A publication from The Comprehensive Addiction and Recovery Act (CARA) reported there was a correlation between opioid addiction and veterans. This finding stimulated the push for Veterans Affairs to provide more integrated care. Veterans Affairs designated various locations as design sites to develop what would embody a Whole Health model. Across the United States, there are 170 VA facilities. Eighteen of which were dedicated as "flag ship" sites to begin implementing Whole Health in 2017.

### Conclusion

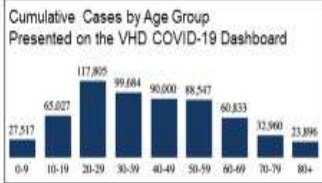
It is unclear how the VA will follow through with the patient's personal health inventory to achieve goals and facilitate a better quality of life during the COVID 19 pandemic. More research will need to be done to identify how the process and outcomes will be achieved.

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**Background/Purpose**

- COVID-19 transmission varies by population characteristics and region.
- Publicly available health department data can help the public understand transmission dynamics in real time to inform behaviors and public health responses to mitigate the spread.
- This work demonstrates how publicly available COVID-19 case data can be used to explore age-group specific trends within and across Virginia health districts.



**Methods**

- Total COVID-19 cases by health district in 10-year age-group increments from 0 to 80 years are publicly available and updated daily on the Virginia Department of Health (VDH) website.<sup>1</sup>
- Calculated weekly total new reported cases by age-group and district.
- Developed an interactive Shiny App<sup>2</sup> to visualize and compare epidemic trends.
- Visualize new reported cases over time by health district, and combinations of health districts, and combinations of age-groups.

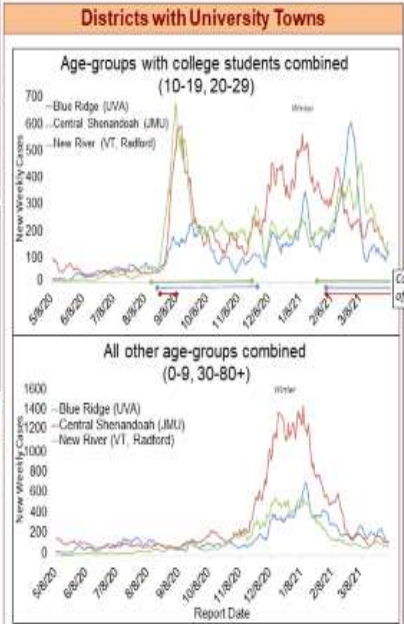
**Limitations**

- Report date may not reflect infection or symptom onset date trends and could be impacted by variation in testing and reporting delays.
- Cases are assigned to location based on residence and may not reflect where transmission occurred.
- Age group was missing for 3% of total patients in VA.

**References**

1. COVID-19 Data: Data Download. <https://www.vdh.virginia.gov/coronavirus/>
2. W Chang, J Cheng, J Allaire, Y Xie, J McPherson. Shiny: web application framework for R. R package version, 2017

**Number of New Weekly Covid-19 Cases Reported for Select Health Districts**

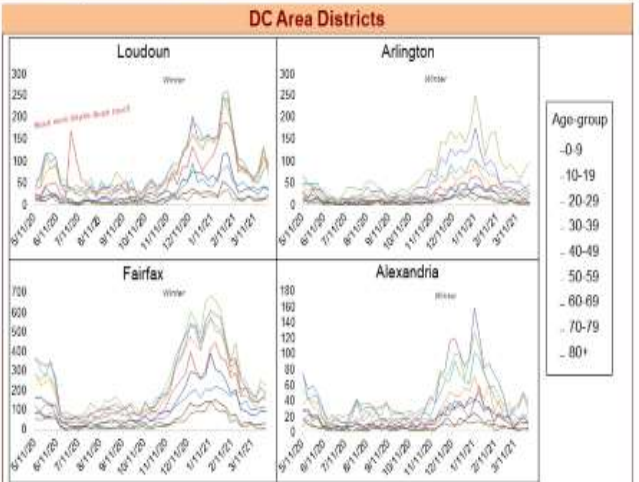


**Summary**

Heterogeneous transmission dynamics can be visualized & compared across age-groups & within districts using data updated daily.

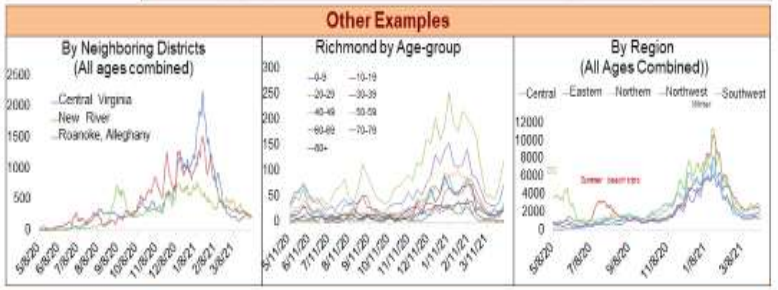
**Recommendation**

Data made publicly available by other age & demographic groups that reflect locality-specific variation in contact patterns would assist in the public's real-time understanding of local transmission dynamics.



• DC area districts show similar trends in reported cases for all age-groups.  
 • Variation in age-groups with the most cases: 40-49 in Loudoun, 20-29 in Arlington & Fairfax, 30-39 in Alexandria.

- New reported cases in some less populated districts with large universities like New River (Virginia Tech, Radford Universities) & Central Shenandoah (James Madison University) abruptly increased only among 10-19- & 20-29-year age-groups in September, 2020.
- Trends did not correlate w/ large increases other age-groups in these districts, but may be some small increases in following weeks.
- Cases did not increase as dramatically in Blue Ridge (University of Virginia) or other districts without large state universities that reopened in Fall, 2020.



Interactive Web Application: <https://wrightc.shinyapps.io/VDH-COVID-data/>

**Acknowledgements:**  
 Thank you to Dr. R. Clay Wright for assistance developing the Shiny App.  
 We thank VDH for providing updated COVID-19 data on their website.  
 For further information, please contact Dr. Silverman at [rsilverman@vt.edu](mailto:rsilverman@vt.edu)

**Next Steps**

- Add additional user interface features for additional flexibility.
- Develop similar tools for: Rates, Race/Ethnicity, Vaccine Coverage.
- Can be used to evaluate policies and compare impact between locations.
- Can be used to inform public health response.

**Age-group**

- 0-9
- 10-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70-79
- 80+

## COVID-19 Trends & their Impact on Populations in Portsmouth, VA

Arnell Jackson Jr.

### Abstract

The COVID-19 pandemic has significantly impacted the daily activities, health, security and general well-being worldwide. The Portsmouth health district has placed emphasis on identification of occurrences of health disparities within the city's population.

### Introduction & Purpose

The Portsmouth Health Department (PHD) is a compilation of various community initiatives designated to deliver advocacy, health education, and services to its residents. The goal of this project was to identify COVID-19 trends of the residents of Portsmouth, in comparison with other Hampton Roads health districts, and create a health communications plan.

### Methods

- Quantitative comparison of Portsmouth and Hampton Roads COVID-19 trend comparisons utilizing the VDH public database by age, sex, race, and vaccine status.

### Results

Health District	Total Positivity %		Completed Vaccination
Portsmouth	12.57	By Ethnicity	White (5,135) Black (4,281) Latino (252) N. Am (16)
Chesapeake	11.22		
Va. Beach	8.82		
Norfolk	8.60		
Western Tidewater	10.51		
Peninsula	7.87	By Sex	Female (8,542) Male (5,417)
Hampton	9.67		

	Age (Grp)	Sex	Ethnicity
Cases	20-29 (1,408)	Females (4,085)	Black (3,703)
Hospitalizations	70-79 (129)	Females (311)	Black (388)
Deaths	80+ (44)	Males (73)	Black (85)

### Discussion

The purpose of the project was to determine potential populations facing health disparities due to the COVID-19 pandemic. The PHD plan targeted future COVID-19 interventions and how to best serve the populations at greatest risk. Findings were utilized to tailor the development of a health communication plan and help obtain a grant opportunity that would provide funds to put the plan into action. The health communication plan was developed to increase health literacy concerning the COVID-19 vaccination to counteract larger levels of misconceptions and mistrust of the vaccine. It is important to note that the data does not reflect current COVID-19 trends.

### Potential IPE

Direct interactions with other professional did not occur due to COVID-19 impact. All interactions were via email correspondence. The health communications plan could potentially be utilized by community/outreach workers to distribute and disseminate the importance on receiving COVID-19 vaccinations.

### Acknowledgements

Thank you Anne Dumadag, MPH, Population Health Planning and Improvement Coordinator, for your guidance and assistance through these trying times and to Dr. Kim Baskette, Ph.D., CHES for a push in the right direction.



# VCU

## Effects of the Pandemic on Nursing Schools in Virginia

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### Abstract

**Purpose:** This study aims to discover whether students are choosing to apply to nursing school in the face of the uncertainty the pandemic has brought, and how those numbers might compare to the pre-pandemic numbers in the state of Virginia.

**Methods:** Every public, private, and for-profit baccalaureate nursing program in Virginia were contacted and asked the following questions: 1. Since the number of nursing applicants changed from 2019 to 2020? 2. Have there been any changes to your admissions process from 2019-2020? Responses were received from a total of 21 from a total of 23 1999 programs from across the state.

**Results:** The results are that 22% or 9% chose not to respond. Of the 21 schools that responded, 15/21 or 71% schools saw an increase in applicants, 6/21 or 29% schools saw no change in applicants, 1/21 or 5% schools saw a decrease in applicants.

**Findings:** An increase in applicants seems to align with increased interest in the field due to their career being highlighted during the pandemic.

**Conclusions:** With this increased interest, it is speculated that this will also increase the competition in baccalaureate nursing programs, especially when considering the limited opportunities of the senior applicants due to the lack of volunteer and internship opportunities in 2020 because of COVID-19.

### Introduction

- The Coronavirus Pandemic has completely disrupted the lives and routines of everyone, most of all, frontline workers. In doing so, guidelines have been rewritten and countless procedures have been changed to accommodate this pandemic. It has also shined a light on several problems the healthcare industry has been sitting down for years such as the Nursing shortage and Telehealth disparities. The need to address these problems will only continue to exponentially increase and may lead to radical changes in medicine (Wang, Bhatt, 2020). One report found that traditionally, in times of recession with high unemployment, college enrollment surges. However, in the state of Washington, enrollment have in fact fallen almost 13% overall (Kowalyk, Kibert-Crocker, Lundgren, Paison, 2021, 5-6). In contrast, by looking at medical school admissions, some research suggests that virtual interviews lowered requirements may make programs more accessible for applicants (Bhatt, Bhatt 2020, 1-2). Based on the available research, there is a need to address the shortages in nursing school admissions as well. The purpose of this study is to see what effect the pandemic has had on Nursing school applicants in the state of Virginia.

### Methodology

- Using a mixed Methods approach, the primary method of gathering information was through two dichotomous questions. Over the course of several weeks, every admissions department of each Nursing Program currently offering a baccalaureate degree in Virginia were surveyed and asked the two research questions. This was done either directly over the phone or via email when necessary, as many departments are now either working at home or temporarily furloughed. Depending on the answer to research question two, subsequent qualitative data was collected.

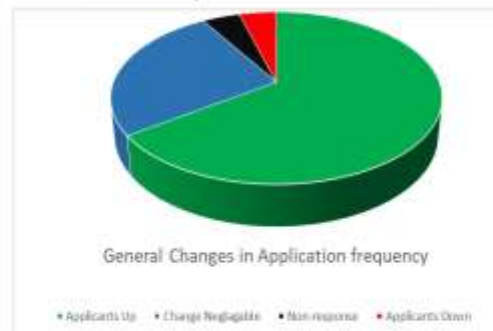
### Results/Discussion

- When Responding to RQ1, of the 23 Nursing BS programs sampled, 15/23 or 65.2% saw an increase, 6/23 or 26.1% saw no change, 1/23 or 4.3% saw a decrease, and 1/23 or 4.3% Chose Not to respond.
- When Responding to RQ2, of the 23 Nursing BS programs sampled, 9/23 or 39.1% changed their process on some Level, 11/23 or 48% made No changes, and 3/23 or 13% Chose Not to respond.
- Of the 9 schools that had made changes the responses were as follows, 4 waived testing requirements, 3 made single electronic formatting changes 1 had a major overhaul of tech done, 1 offered completely remote TEAS testing services, and 1 lowered GPA entry requirements.

### Research Questions

1. Have the number of Nursing applicants changed from 2019 to 2020? (yes or no)

2. Have there been any changes to your admissions process from 2019-2020?



### Conclusion

- One would think that in the middle of such economic hardship, College and Nursing School admissions would stagger or fall significantly, my findings however, have indicated otherwise for the state of Virginia. With the job market suddenly being flooded with experienced unemployed or furloughed applicants, data suggests more and more students are considering extra schooling. This has a few critical implications for future and currently applying students. Though a significant percentage of programs have relaxed requirements, this is likely to serve only to make these programs even more competitive and increase the value of whatever limited skills the applicants may have gained through prior experiences.
- This approach had several Limitations; therefore, this is a pilot study. Small Sample size being the first at a low of just 23. Due to the relatively small size of this study, a quantitative approach was used to record responses. In addition, several of the uncertainties were not able to provide many extraneous details beyond the question itself. In many cases a change was able to be confirmed, however the exact quantity of change remains mostly unknown. Overall, the quantity and quality of responses exceeded expectations.
- This conclusion is reinforced by the fact many of these schools easily fill their programs with qualified students, turning away almost as many qualified applicants as they admit. In the future, it would be interesting to compare this data to the entire East Coast, or the country. Considering a different lens, when it comes to fighting the spread of Covid-19, Virginia did relatively better than some states such as Florida, Texas and California and it would be interesting to see what the admissions rates were in those states to see whether the responses such response was a direct result of COVID-19 itself, or a rippling economic effect of intense structural changes due to the lockdown, etc. It is likely that the answer is a mix of both.

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### Acknowledgements

I would like to thank Dr. Booker for her invaluable advice she has given me throughout the research process, and for the opportunities she has provided me over the past few months to develop and explore my career options.

# Evaluating the Effects of the COVID-19 Pandemic and Telehealth on University Student Access of Mental Health Resources



Grace Duncan

Graduate Program in Public Health, University of Virginia

### Background

- The onset of the COVID-19 pandemic and resulting change in lifestyle elicited many concerns about mental health and provision of mental health services.
- In Spring of 2020, most colleges shifted students entirely online and removed in-person services, including university mental health services.
- Early surveys conducted by universities reported significantly higher incidence of anxiety, depression, and other mental health issues among college students.
- Prior to the COVID-19 pandemic, telemedicine had been gaining traction as a solution to numerous health system issues including cost, physical barriers, and provider shortages.
- However, disparities in access were quickly identified, primarily geriatric patients, those with poor internet access, and those in need of more intensive treatment.

### Objective

To examine key changes in student and appointment demographics at a large public state university's Student Health Counseling and Psychological Services program during the COVID-19 pandemic as many students returned home and all appointments transitioned to telehealth.

### Methods

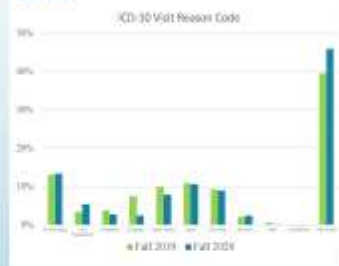
- Data**
- The University Student Health and Wellness Center (SHWC) is a fully accredited healthcare facility and the primary outpatient medical clinic for the university student population.
- Counseling and Psychological Services (CAPS) is a subsection of SHWC and provides counseling, psychiatric care management, crisis support, and mental health outreach services to students.
  - Student health data was linked and de-identified using the IRB-approved Student Health Research Database.
  - Health data (ICD-10 classification for reason visit, date of visit, provider seen, etc.), student demographics (e.g. age, race, citizenship, tax dependency), and academic information (your academic program, etc.) were provided in a de-identified dataset.
- Analysis**
- Chi squared and two sample t-test were performed in SAS to evaluate the change in health, demographic, and academic attributes CAPS utilizes before and during the pandemic shift to virtual visits.

Descriptive Statistics			
Student Characteristics	Fall 2019 (n=1649)	Fall 2020 (n=1231)	Test Statistic and P-value for test of difference
Age (years old)	20.968(4.02)	22.204(4.45)	T = -2.60 (p = 0.01)
Student Status			$\chi^2 = 7.20 (p = 0.007)$
	Graduate	11.98% (193)	11.38% (140)
	Undergraduate	88.02% (1456)	88.62% (1091)
Gender			$\chi^2 = 6.77 (p = 0.009)$
	Male	53.05% (874)	51.45% (637)
	Female	46.95% (775)	48.55% (604)
Citizenship Status			$\chi^2 = 8.74 (p = 0.003)$
	Native	91.70% (1508)	90.81% (1118)
	Non-US citizen	8.30% (136)	9.19% (113)
	Native	0.41% (6)	0.42% (5)
Number of Appointments per student (mean/SD)	4.710(4.216)	4.407(4.19)	T = -2.80 (p = 0.005)
Ethnicity			$\chi^2 = 16.97 (p = 0.000)$
	Hispanic/Latino	0.85% (14)	0.98% (12)
	Black		
	Asian	12.01% (201)	12.82% (158)
	Black or African American	6.59% (108)	7.15% (88)
	Hispanic	6.34% (104)	6.93% (85)
	White	8.87% (146)	9.65% (119)
	New Zealand/Mex	13.34% (218)	13.85% (171)
	White	32.61% (535)	33.89% (417)
	Unknown	2.37% (39)	4.75% (58)
Appointment Characteristics	Fall 2019 (n=7074)	Fall 2020 (n=5368)	
			$\chi^2 = 28.75 (p = 0.000)$
Group Appointment Status			
	No	13.18% (204)	13.35% (162)
	Yes	86.82% (1340)	86.65% (1066)
Reason			$\chi^2 = 24.76 (p = 0.000)$
	Dist/Screening/Trng	13.18% (195)	13.26% (162)
	Car Management	3.30% (50)	3.36% (41)
	Consultation	1.89% (28)	2.42% (30)
	Diagnosis	7.49% (111)	7.40% (91)
	Consultation/Case		
	Group Therapy	9.81% (143)	7.86% (97)
	Wkly	15.95% (233)	16.29% (199)
	Med Check	9.20% (133)	8.94% (110)
	Med Eval	2.94% (43)	2.49% (30)
	Other	0.46% (7)	0.22% (3)
	Reason/Reason	0.85% (12)	0.93% (11)
	Talk Therapy	34.55% (494)	41.96% (511)

### Results



### Results



### Conclusion and Recommendations

- CAPS has continued to serve a large student population throughout the pandemic after a shift to solely virtual mental health appointments.
- Early analysis of appointment data indicates that there may be benefits to a virtual appointment model including improved access, ease of attending appointments, and more appointments dedicated to talk therapy.
- However, they also bring up concerns that some groups are not adequately reached by services that are only provided virtually. Men, younger students, some minority groups, and those in crisis situations are among those groups who saw significant decreases in the proportion of visits during the shift to telehealth.
- In continuing telemedicine offering during and after social distancing guidelines are relaxed, efforts should be made to ensure equitable coverage.
- Limitations include concerns about the accuracy of the population reached by student health in the Fall 2020 semester given restrictions on virtual visits across state lines and inconsistency between providers inputting reason codes.

### Acknowledgements

Thank you to the University of Virginia Ebon Student Health Center team, specifically Dr. Christopher Haskins, Kamal Tawfik, and Nouria Rogi, without whom this project would not have been possible.



# Physical and Mental Health Care Recommendations for Healthcare Personnel During COVID-19 from January 1<sup>st</sup>, 2019 – April 24<sup>th</sup>, 2020 : A Systematic Review

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### Abstract

**Purpose:** To review recommendations and interventions designed to physically protect healthcare professionals from acquiring COVID-19 and to mentally protect healthcare professionals from the stress and pressure associated with COVID-19.

**Methodology:** A search was conducted using PubMed and ScienceDirect from January 1<sup>st</sup>, 2019 to April 24<sup>th</sup>, 2020. Of the twelve articles identified, one duplicate article was excluded, and the remaining eleven articles on COVID-19 physical and mental health recommendations and interventions for healthcare personnel were selected for review. Studies focused on physical and mental health interventions for healthcare professionals in relation to COVID-19. Similar studies focused on patient populations were excluded.

**Findings:** Measures to combat the physical and mental health consequences of COVID-19 among healthcare personnel included at-home testing and monitoring for patients with COVID-19 and psychological interventions for healthcare personnel.

**Summary:** Interventions that focused on at-home testing and monitoring of patients with COVID-19, trained healthcare professionals on psychological skills to deal with patients with COVID-19, and provided psychological assistance to healthcare professionals were found to be successful in helping to keep patients with COVID-19 out of hospitals and protecting the mental health of healthcare professionals.

**Conclusions & Recommendations:** Overall, to physically and mentally protect our healthcare workers from COVID-19, conclusions based on the systematic review completed April 2020, were to:

- (1) Adopt more aggressive screening practices
- (2) Consider the use of at-home testing and monitoring interventions for patients with COVID-19 or suspected of having COVID-19 to decrease the number of infected patients in hospitals and ultimately protect healthcare personnel
- (3) Design and implement psychological interventions that take the needs of the healthcare staff (e.g., uninterrupted rest, monitoring the use of medical resources, on-site psychologists to deal with uncooperative patients) into consideration.

### Objectives

To review recommendations and interventions from January 1<sup>st</sup>, 2019 to April 24<sup>th</sup>, 2020 designed to protect healthcare professionals from acquiring COVID-19 and to improve the mental health of healthcare personnel.

### Methods

- A literature search was conducted using PubMed and ScienceDirect databases.
- The search terms for protecting healthcare workers from COVID-19 included: [hospital] OR [healthcare worker] OR [healthcare] OR [healthcare personnel] OR [healthcare professionals] AND [COVID-19] OR [COVID 19] OR [coronavirus]
- The search terms for examining the mental health of healthcare personnel dealing with COVID-19 included: [mental health] OR [mental] OR [psychologic] AND [healthcare personnel] OR [healthcare professionals] AND [COVID-19] OR [COVID 19] OR [coronavirus]
- Inclusion Criteria:**
  - Studies that specifically focused on COVID-19 and not any other associated infectious diseases. This limited the search to studies published between January 1<sup>st</sup>, 2019 and April 24<sup>th</sup>, 2020.
  - Interventions that addressed physical and/or mental health measures that can be taken to protect healthcare workers.
- Exclusion Criteria:**
  - Studies that focused on patients as the population of study.

### Results

Records included based on search terms used for article title and abstract review (n=12)

Duplicate records removed (n=1)

Full text articles reviewed for eligibility (n=11)

Articles eligible for inclusion (n=11)

### Recommendations

Physical Health Recommendations	Mental Health Recommendations
<ol style="list-style-type: none"> <li>1. More aggressive case detection and changing the focus of screening practices,<sup>1</sup> which includes:                             <ul style="list-style-type: none"> <li>• Testing patients with symptoms regardless of travel or contact history<sup>1</sup></li> <li>• Screening patients for all respiratory viruses, regardless of symptoms<sup>1</sup></li> </ul> </li> <li>2. At-home testing and monitoring to keep patients with COVID-19 out of hospitals<sup>2</sup> <ul style="list-style-type: none"> <li>• Using paramedics to remotely monitor patients<sup>2</sup></li> </ul> </li> <li>3. Restrict healthcare personnel from working if they have any upper respiratory tract symptoms, even if fever is absent<sup>1</sup></li> </ol>	<ol style="list-style-type: none"> <li>1. Designing a mental health handbook for healthcare personnel<sup>2</sup></li> <li>2. Designing a psychological intervention program to address the needs of the staff                             <ul style="list-style-type: none"> <li>• Designated rest and isolation areas for healthcare staff<sup>4</sup></li> <li>• Training regarding psychological skills that can be used to deal with uncooperative patients<sup>4</sup></li> <li>• Providing staff with leisure activities and trainings on how to de-stress<sup>4</sup></li> <li>• Having psychologists make regular visits to the hospital to speak with healthcare personnel<sup>4</sup></li> <li>• Psychological assistance hotlines<sup>4,5</sup></li> </ul> </li> </ol>

### Conclusion

- The healthcare organization that implemented a pilot at-home testing and monitoring intervention for patients with COVID-19 was found to be successful as over 100 patients were tested for COVID-19.<sup>2</sup>
- The reformulated psychological intervention when the researchers assessed the intervention, interviewed the healthcare personnel on the limitations of the intervention, and then redesigned the intervention based on the needs of the healthcare personnel was found to be effective in reducing the psychological stress and pressure on the healthcare staff.<sup>4</sup>
- The psychological intervention program composed of different teams to perform a different set of tasks (e.g., a psychological response team of managers and press officers, a psychological assistance hotline) was found to be successful in providing mental health care to hundreds of healthcare personnel, with plans to expand to other hospitals.<sup>4</sup>

### Discussion

This review based on literature through April 2020 highlighted four major recommendations:

- (1) The need for more aggressive case detection and screening practices,<sup>1</sup>
- (2) Improvements in our approach to respiratory diseases in the US and likely across the globe,<sup>1</sup>
- (3) At-home testing and monitoring interventions of patients with or suspected of having COVID-19 should be highly considered to help protect our healthcare workers and patients by keeping unnecessary visits to the hospital at a minimum,<sup>2</sup> and finally
- (4) The design and implementation of psychological interventions in a way that takes the needs of the healthcare staff into consideration.<sup>4</sup>

Additionally:

- Consideration of unique measures such as mental health handbooks, trainings on how to relax, and psychological assistance hotlines.<sup>3,4,5</sup>
- Healthcare personnel should make use of online platforms where medical advice is exchanged in efforts to reduce the stress on healthcare personnel.<sup>6</sup>
- Mental health conditions of healthcare personnel should continue to be monitored and supported.<sup>7</sup>

### Directions for Future Research

- Future research regarding COVID-19 among healthcare professionals should focus on designing and implementing interventions that address the physical and mental health consequences of COVID-19 among healthcare personnel in the U.S. and abroad.
- Future studies should review updated emergency preparedness measures to better protect our healthcare personnel in the U.S. and abroad from future health crises.

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# Shifting from In-Person to Virtual Program Delivery: Lessons Learned from the COVID-19 Pandemic

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## Introduction

### The Global Health Heroes program

- Beginning in 2016, to teach children positive health behaviors with the intention that the kids will use these new skills and share them with their family and friends.
- The program design is an interactive on-site experience that includes information and activities highlighting the importance of good nutrition, recycling, and hygiene. Program facilitators measure pre-existing knowledge with a pre-test and information comprehension with a post-test.
- On-site implementation is the responsibility of a Center for Global Health representative with assistance from ODU interns and on-site employees.

Starting in September 2020, the Center began adapting the Global Health Heroes program in response to the changes in daily routines brought on by the COVID-19 pandemic.

- In December 2020, the Center for Global Health successfully launched its first-ever virtual Global Health Heroes program, via Zoom piloted with 20 students from the Rosemont Light Boys and Girls Club.

The virtual program's objective is to promote healthy habits that reduce the spread of germs by reinforcing the importance of social distancing, wearing a mask, and hand hygiene.

- To enhance the virtual session's theme, an e-book, accessible on the Center's website, is available to promote individual learning and increase accessibility.



## Process

The Center used this opportunity to reinforce the Centers for Disease Control guidance on reducing COVID-19 spread. The virtual lesson consists of:

- A discussion on the meaning and importance of Global Health.
- Engagement with the children on reducing the spread of germs to gauge existing knowledge.
- Slide series with videos.
- A choice of activity explaining to friends and family the importance of not spreading germs, social distancing, or wearing a mask. Such as
  - storyboard, mind map, poster
  - poem, song, or a social media post.
- Opportunities for children to present a completed project and receive feedback from the facilitators.

- Wrap-up - the opportunity to reinforce lesson themes and to answer questions.
- Issuance of a certificate of completion and receipt of healthy snacks.

### Global Health Heroes Certificate of Achievement



### Global Health Heroes Slide Series Content

What is a Global Health?

Personal	Personal	Community
Wash your hands often.	Wash your hands often.	Wash your hands often.

#### Group Work Activity/Presentation

Menu:

- Storyboard
- Mind Map
- Poster
- Poem



### Global Health Heroes E-book Content



#### Be Healthy, Be a Hero!

Remember! You can Global Health Heroes and stop the spread of germs by:

- Washing your hands frequently.
- Wearing your face mask often.
- Wearing your face mask often.
- Wearing your face mask often.
- Wearing your face mask often.



## Perspective

The Center for Global Health piloted the virtual program with 20 students from the Boys and Girls Club. While the program's implementation was a success, the Center learned valuable lessons to create robust, dynamic, and interactive future presentations.

- Compared to the previous face-to-face program format, spontaneous teachable moments are absent.

The virtual program benefits from an on-site facilitator to assist in the lesson's flow and provide direction.

- Engagement and buy-in from community partners are essential to have a successful virtual program. It is the driving force for site participation and program information dissemination to their customers.

Facilitators and developers will need to continue to develop skills to utilize advancing technology to provide a more interactive, engaging experience for the children.

- Additional presentation software (Prezi and Visme)
- Gamification apps
- Flout widgets
- Poling software

## Conclusion

The Global Health Heroes program's purpose is to promote healthy behaviors and educate children on the positive outcomes associated with those behaviors, not just for themselves but also for their friends, loved ones, and the community. The transition of the Global Health Heroes program to an online platform during the COVID-19 pandemic reflects the Center's mission and vision of positively impacting health and well-being by using its members' unique strengths to address community needs. Utilizing the information and lessons learned with the pilot program's implementation, the Center is motivated to continue to develop the virtual Global Health Heroes program.

VIRGINIA COMMONWEALTH UNIVERSITY



**VCU**

The Impact of COVID-19 on the Graduate Admissions for Master of Health Administration and Master of Business Administration Degree Programs in the United States

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**Abstract**

COVID-19 has affected the way university admissions across the country are considering prospective applicants. The graduate admission process for Master of Health Administration and Master of Business Administration degrees has altered their requirements for standardized testing and the admission interview. This project seeks to assess the number of programs that do not require standardized test scores for applications to their programs. Data is collected by using a quantitative approach based on the given information. A total of 150 MHA and MBA programs are analyzed by collecting data regarding curriculum and admission from the program website. Thirty percent of programs expect to conduct an admissions interview and less than half of the programs have changed the administration of the interview. Prior to COVID-19, 77% of programs required standardized testing as a part of their admission criteria. As the pandemic continues, the requirement has decreased to 47%. Requirements vary per university guidelines.

**Introduction**

University admissions across the country have altered their application criteria due to the ongoing COVID-19 pandemic. One field of study, amongst many, that has been impacted by this change would be the healthcare administration field. Addressing the needs of the healthcare field means the changes to the admission criteria have led to more gradual performance in a shorter time to fill the gaps in the industry. Since COVID-19, modifications have been made to the university admission interview process and the standardized testing requirements. The graduate master of administration (MBA) and/or graduate management administration (MHA) degrees are a common way for university admission committees to qualify an applicant for graduate health administration programs. Due to lack of face-to-face learning in the admission process, universities are developing new ways to assess applicants based on the required criteria.

**Methodology**

In this research, an online quantitative analysis approach is used to develop and provide research on various aspects of the field. Specifically, several steps, like method to used when gathering and collecting relevant information or data from existing reliable reference materials as a data source. The research question is: "What changes have been made to the graduate admission process due to COVID-19?"

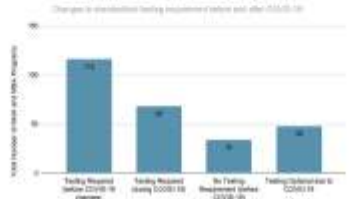
The research question is explored by analyzing each university's graduate program guidelines and admission requirements while the data is collected directly off the program website. The data is then entered by creating a spreadsheet of the collected information. Each program is divided into categories and includes the required criteria per curriculum and admission. The following includes what data was collected regarding admission requirements: preferred undergraduate GPA, essay or letter of intent, letters of recommendation, work experience, admission interview, prerequisites, course or graduation year, and official transcripts. Admission requirements may vary per university. Once the data was gathered and collected, the information was analyzed to compare the changes from before and after COVID-19.

**Results/Discussion**

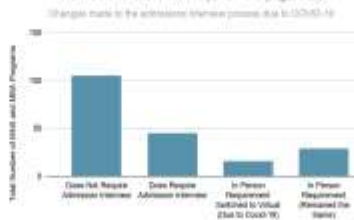
Based on 2021-2022 data, 47% of programs do not require any form of standardized test as a part of their admission requirements. Based on the 150 programs in which data was collected from, 77% of graduate programs required applicants to submit their testing scores prior to COVID-19. A significant number of programs, roughly 47%, have transitioned to keep standardized testing as a part of the admission criteria. In addition to standardized testing, 38% of university graduate programs require applicants to conduct an interview with the admissions committee. Admissions interviews are just in place or enhanced in applicant's goals and to get an idea as to why they would like to pursue a degree in healthcare administration. Due to the nature of the pandemic, it is difficult to have a face-to-face interview. Around 15% of university programs have changed their in-person interview to be conducted virtually.

Universities have altered their admission criteria to better adjust around the pandemic. Programs have changed their standardized testing and interview process due to the lack of flexibility. These alternatives help the applicant to work around the pandemic by enabling an applicant to pursue a graduate degree. The pandemic has affected the way admission committees are reviewing potential graduate applicants. Moving forward from the pandemic, admission requirements will forever be altered as committees are finding new ways to assess applicants that were not in place prior to the pandemic. The most significant changes made to the 2021-2022 application cycle are the requirements for standardized testing and admission interviews.

Standardized Testing Requirement (Figure A)



Admissions Interview Requirement (Figure B)



**Conclusion**

This project was aimed to find the number of programs who do not require any form of standardized test as a part of their admission requirements. Based on the 150 programs in which data was collected from, 77% of graduate programs required applicants to submit their testing scores prior to COVID-19. A significant number of programs, roughly 47%, have transitioned to keep standardized testing as a part of the admission criteria. In addition to standardized testing, 38% of university graduate programs require applicants to conduct an interview with the admissions committee. Admissions interviews are just in place or enhanced in applicant's goals and to get an idea as to why they would like to pursue a degree in healthcare administration. Due to the nature of the pandemic, it is difficult to have a face-to-face interview. Around 15% of university programs have changed their in-person interview to be conducted virtually.

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**Acknowledgements**

I would like to express my special thanks of gratitude to Dr. Christine Brooks who gave me the opportunity of this research project on the changes made to the 2021-2022 graduate admission process. I came to know about so many different subjects and I am thankful for her mentorship.





## Utilizing Community Health Worker Learning Modules to Increase Preventive Services During the COVID-19 Pandemic

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### BACKGROUND

- The beginning of the COVID-19 Pandemic led to a 60% decrease in ambulatory services
- The drop in ambulatory and preventive services may lead to future adverse health outcomes, particularly in vulnerable populations
- Literature shows that vulnerable populations have increased rates of DM/CVD and mental health disorders after disasters and increased community support leads to better health outcomes

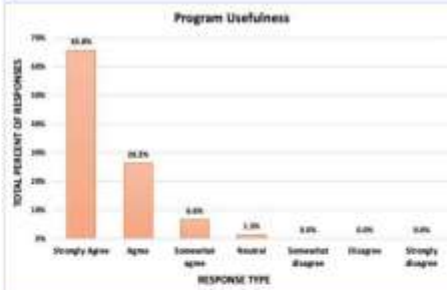
### PROJECT PURPOSE

- Reduce the burden of disease resulting from the COVID-19 Pandemic by increasing social support and access to preventive services in the community
- Utilize targeted learning modules to educate community health workers (CHWs) on topics relevant to health concerns during the pandemic
- Increase community support through CHW education



### METHODOLOGY

- Four evidence-based learning modules: diabetes and cardiovascular disease, mental health, community resources, and COVID-19
- Disseminated to VA CHWs through the Institute for Public Health Innovation and the Virginia Certification Board
- Completion survey with modified USE Questionnaire and three qualitative questions. Data collected over four weeks, n=19 respondents



### RESULTS

- 100% responded positively that the program increased their knowledge and helped respondents be more effective in their work
- COVID-19 and community resource modules were the most useful
- Respondent comments: "Great program, user friendly, informative, and easy to follow," "CHWs can benefit from more of this training program." "Make all trainings this easy to do"
- Respondents would like more links to resources and applicable educational resources

### RECOMMENDATIONS

- Educational interventions during COVID-19 should be targeted and succinct
- Provide resources for CHWs regarding community resources and COVID-19
- Consider utilizing a similar format for additional trainings in the future
- Consider utilizing evidence from previous natural disasters when addressing challenges during the COVID-19 Pandemic

### ACKNOWLEDGEMENTS

Thank you to the Institute of Public Health Innovation and the Virginia Certification Board for their assistance and support during this project.  
 Thank you to Dr. Rebecca Sutter for her guidance and expertise.

### REFERENCES

