

Creating a COVID-19 Unit for Our Community

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Background

- University of Maryland Medical Center Midtown Campus serves a very diverse patient population
- COVID-19 confirmed cases and fatalities for diverse populations in West Baltimore City were at an all-time high
- 51,403 Total COVID-19 positive cases in West Baltimore City (during 10/20-3/21)
- University of Maryland Medical Center Midtown Campus opened a 11-bed COVID-19 patient care unit on October 20, 2020
- COVID-19 interdisciplinary care team and a comprehensive healthcare delivery model was implemented to successfully oversee care and discharge patients to home in good health

Objectives

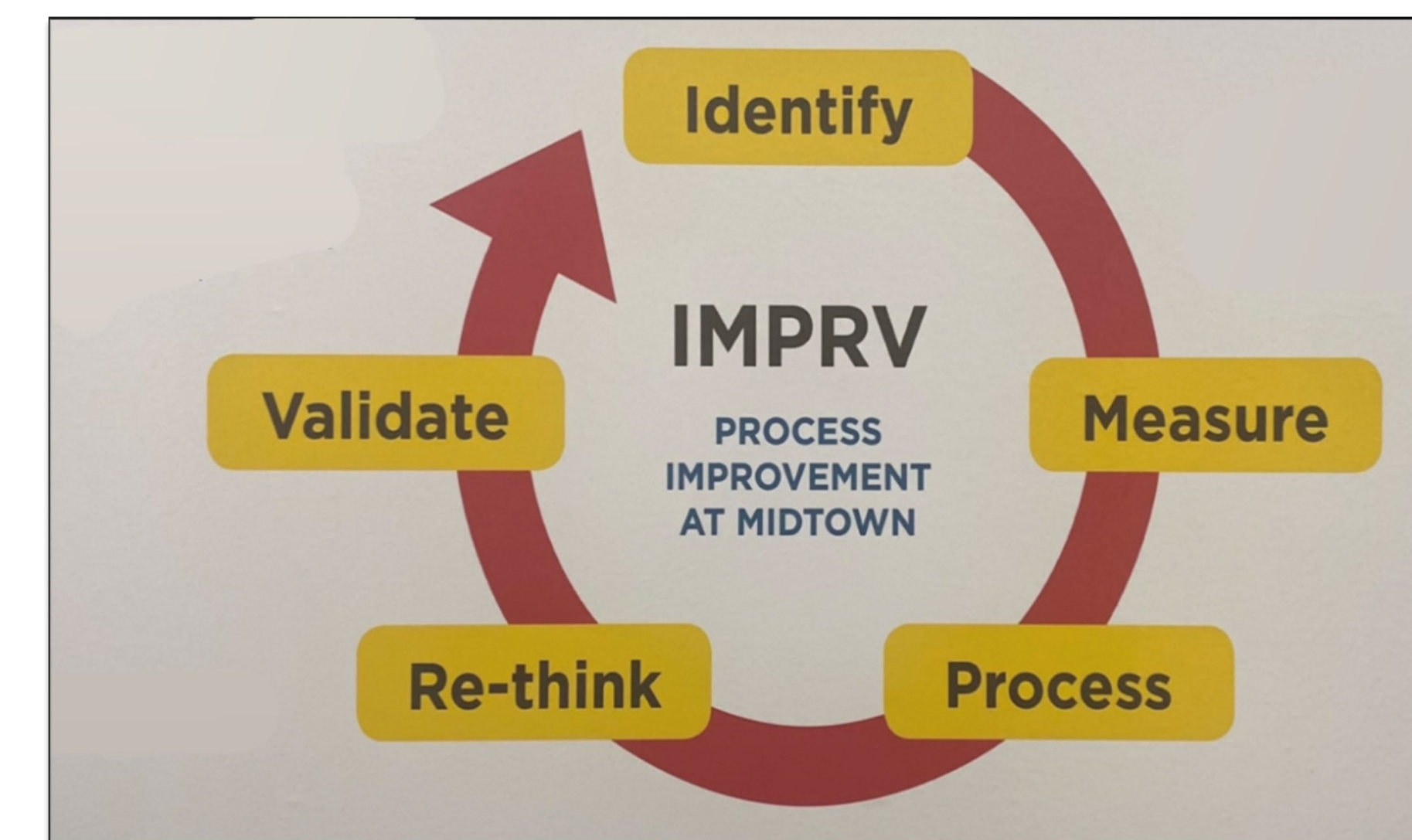
- Provide community with access to COVID-19 centered care
- Provide community with expertise COVID-19 based treatment regimen
- Provide community with a dedicated interdisciplinary care team
- Develop an infrastructure consistent with CDC guidance to reduce the spread of covid-19 within the community, patients, and staff
- Develop and maintain a communication plan for staff, patients, and the community for COVID-19 guidance

Development

- **Identify**
 - University of Maryland Medical Center Midtown Campus services a diverse population of patients who are at an increased risk for challenging comorbidities which have been shown to increase the prevalence of death when contracting COVID-19, based on inadequate access to healthcare, lack of preventative healthcare and lack of trust in healthcare
- **Measure**
 - **Current state:**
 - Lack of dedicated unit/physical infrastructure with the appropriate resources to provide patient centered care for COVID-19 positive patients in the West Baltimore community and surrounding zip codes
 - Healthcare delivery teams lack the availability of multidisciplinary care providers to support complex care delivery for COVID-19 positive patients
 - **Ideal state:**
 - Operationalize a dedicated unit/physical infrastructure with the appropriate resources to provide patient centered care for COVID-19 positive patients
 - Develop multidisciplinary care teams with the skill sets required to successfully care for and treat COVID-19 positive patients with complex past medical histories and comorbidities
- **Process**
 - Based on CDC guidelines, develop and operationalize a 11-bed COVID-19 positive unit, contained and separated
 - Negative pressure capability for entire unit, vital sign equipment dedicated to each room, individual medication lock boxes mounted outside of each room, iPad for patient monitoring and communication, storage area for all required supplies, charging stations for equipment, nourishment room dedicated to patients
- **Supplies**
 - Increased supplies levels for personal protective equipment, shoes for staff, extended tubing, disposable thermometers, disposable pulse oximeters, disposable stethoscopes, increased biohazardous waste containers
- **Dedicated Multidisciplinary Team**
 - Nursing care delivery transitioned from primary care to a team nursing model
 - Physician Care team consisted of Attending Physicians
 - Specialized support services provided by trained team members in pharmacy, respiratory therapy, rehab services, radiological services, phlebotomy services, environmental services and an awesome infection prevention team
- **Re-think**
 - Unit developed within 2 weeks using our IMPRV rapid design
 - Corporate and hospital Incident Command Leadership endorsed and fully supported
 - Financial requirements for the development of the unit approved quickly
 - Development of physical infrastructure completed within 7 days
 - Proof of concept tested over 3 days in which changes to enhance efficiency were made based on the 3-day pilot
- **Validate**
 - Communication provided to staff, physicians, community, state, etc.
 - Comprehensive training provided for all staff (nurses, physicians, patient care technicians, environmental services staff, etc.
 - Patients admitted from the emergency department to the COVID-19 dedicated unit, as well as from various hospitals within the University of Maryland Medical System
 - Patients were successfully diagnosed and provided specialized COVID-19 medical care from trained staff
 - Staff were empowered to deliver safe quality care to COVID-19 positive patients and provide feedback to leadership

Methods

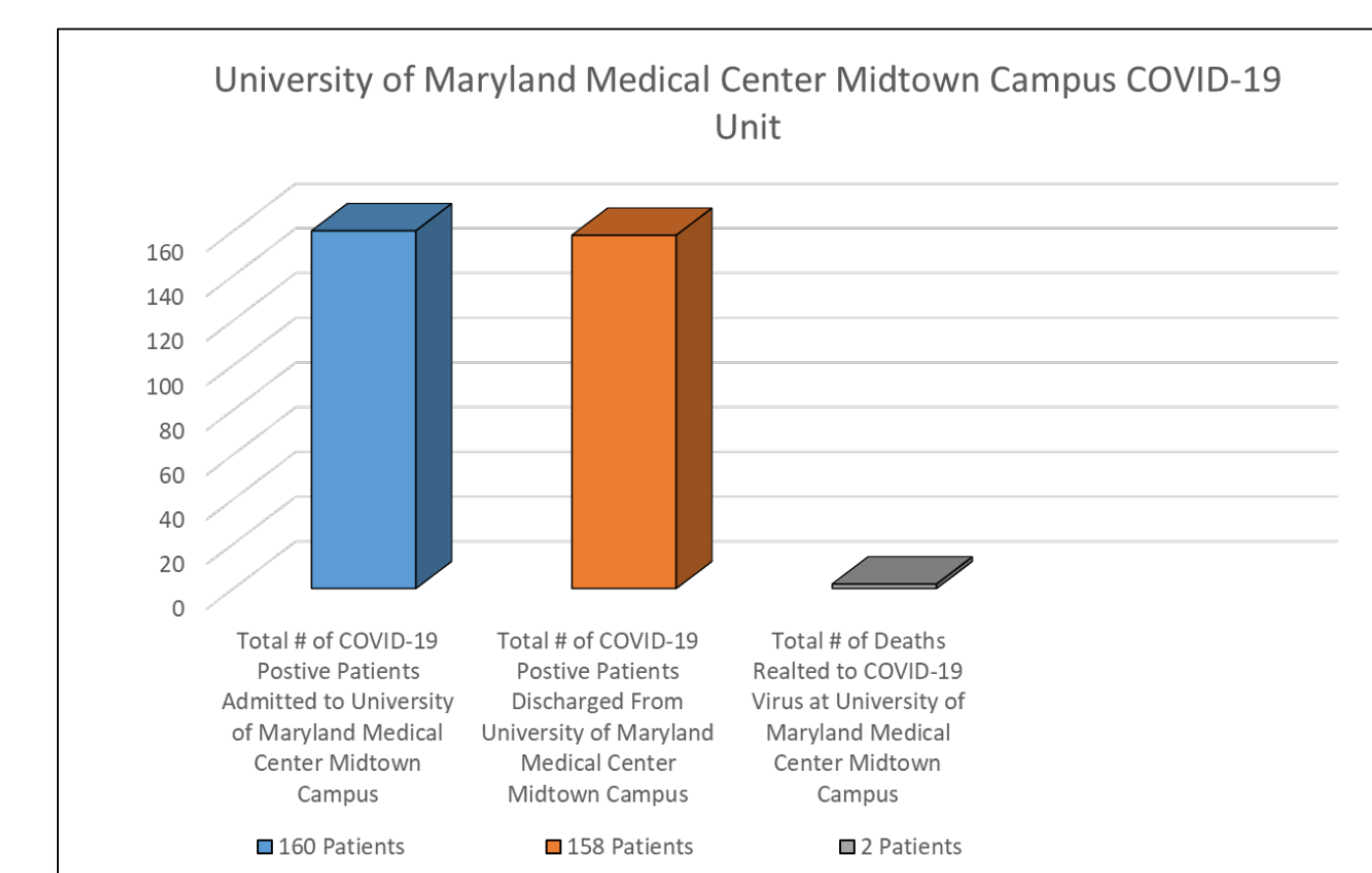
- **Identify**
- **Measure**
- **Process**
- **Re-think**
- **Validate**



Conclusions

By establishing a unit which encompassed the resources required to care for a population of patients that are at an increased risk for death related COVID-19, University of Maryland Medical Center Midtown Campus has been able to secure the trust of the community it serves. Midtown has provided its immediate community with world renowned, FDA approved treatments for the COVID-19 virus. This led to the utmost appreciation from the community, in regards to the care that was devoted to them. Midtown dedicated a multidisciplinary team to care for patients that were confronted with the virus, allowing for the development of an infrastructure that was consistent with CDC guidelines. This ultimately led to the positive outcomes garnering a higher level of trust from the community.

Figures



Results

State and Local Wide COVID-19 Statistics

- 383,352 Total number of COVID-19 positive cases in the state of Maryland
- 10,266 COVID-19 positive cases in the Hispanic/Latino population within the state of Maryland (2.6% of the Maryland population)
- 6,335 COVID-19 positive cases in the African American population within the state of Maryland (1.7% of the Maryland population)
- 4,398 COVID-19 positive cases in the Caucasian population within the state of Maryland (1.1% of the Maryland population)
- 51,403 Total number of COVID-19 positive cases in West Baltimore City Community (13% of the Maryland population)
- 3791 COVID-19 positive cases in the African American population within West Baltimore City Community (7.4% of the West Baltimore City Community population diagnosed with COVID-19)

University of Maryland Medical Center Midtown Campus COVID-19

- 4661 Total Admissions to University of Maryland Medical Center Midtown Campus between October 2020-March1, 2021
- 3.4 % of the total patients admitted to University of Maryland Medical Center Midtown Campus between the dates of October 2020 and March 1, 2021 tested positive for COVID-19 requiring specialized Covid-19 medical care
- 160 patients tested positive for COVID-19 and admitted to the COVID-19 unit
- 158 COVID-19 patients discharged to home and 2 COVID-19 patients expired

Bibliography

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