Promoting Access to Care and Health Equity Using Telehealth to Mitigate Urban Pediatric Healthcare Disparities

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Overview

- Virtual care aligns with strategic imperatives and Lean Dimensions of Customer Value, which aim to:
  - improve health outcomes and quality of care
  - improve access to care
  - reduce costs for the healthcare organization, the patient and family, and
  - improve satisfaction and optimize the patient experience.
- Rapid deployment of multidisciplinary telehealth services during the COVID-19 pandemic presented challenges to create sustainable hybrid models of virtual care.
- As telehealth adoption and utilization increased, Lean process improvement methodologies and tools were embedded at every step of the way.

Learning Objectives

- Recognize the impact of increased telehealth adoption, access, and continuity of care, to transform healthcare delivery.
- Identify best practices and facilitators for expansion of virtual healthcare services and optimal user experience.
- Describe telehealth patient-centered technologies and techniques for advanced data sharing and visualization used to measure key performance indicators and effectiveness of process improvement methodologies.

Background

A community needs assessment indicated that patients in the primary urbanized service area demonstrated healthcare disparities including: linguistic isolation (20%), living below the federal poverty level (53%), and 57% had difficulties accessing healthcare (versus 28% nationally). 55% were reported to need a specialist (compared to 34% nationally). Telehealth provides opportunities to create efficiencies and optimize staffing resources, enhance access to care and reduce travel related costs for patients and families.

Objective of Program

Rapidly deploy multidisciplinary telehealth services during the COVID-19 pandemic and create innovative hybrid models of virtual care. Conduct process improvement and program evaluation to assess and enhance virtual care service delivery, and measure key performance indicators, compared to in-person care. Reduce wait time to schedule an appointment and optimize staffing levels. Another objective was to reduce travel related expenses for patients and families.

Planning / Research Methods

A quality improvement (QI) project was conducted to enhance, expand, and optimize virtual care utilization, service, and experience. To create more value for the customer, Lean process improvement methodologies were utilized to define, measure, analyze, improve upon, and sustain workflows and processes for an optimal user experience. (AHRQ, 2017). Lean principles and tools were also utilized to measure key performance indicators and the effectiveness of process improvement actions implemented (Shortell et al., 2021).

Implementation Methods

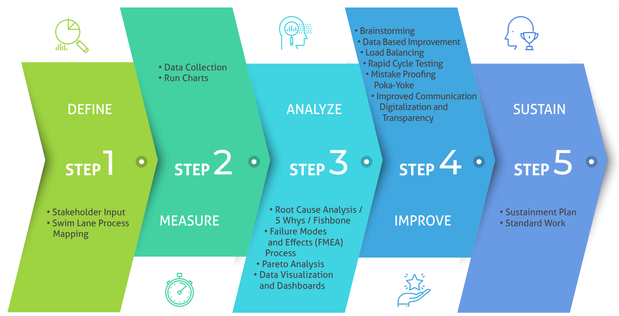
Methods focused on the following:

1. Journey mapping through the customer experience and virtual care workflow
2. Developing a dashboard and visualization tools to create a centralized view of all data and
3. Use of Lean tools, which included: swim lane diagram used to map out existing workflows in greater detail, the creation of fishbone diagrams to identify potential root causes of problem areas, and Pareto analysis which enabled us to identify a course of action by quantifying the benefits of addressing our problem areas (Shortell et al., 2021).

Lean Process Improvement

A3 Problem Solving Approach to Developing a Sustainable Telehealth Model

The A3 structured problem-solving approach was used to organize and communicate the improvement effort, and to develop a sustainable telehealth model. The data collection system included the electronic health record system (Cerner), patient satisfaction surveys administered through Press-Ganey as part of our hospital-wide survey process, and a hospital-developed tool used to calculate patient cost savings.

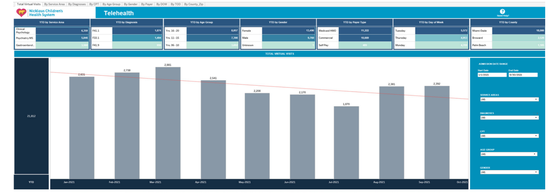


Lean Process Improvement

Aim: Build a service delivery model that provided even better access to care

Dashboard

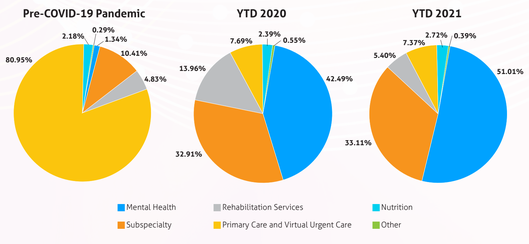
Developed a Telehealth dashboard in collaboration with the Business Intelligence (BI) team that allows for real-time access to virtual care data and visualization. Data can be filtered by age, gender, day of the week, diagnosis, provider, and other fields.

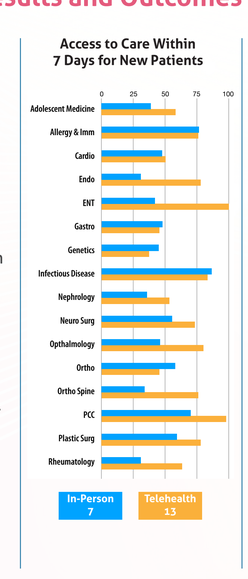


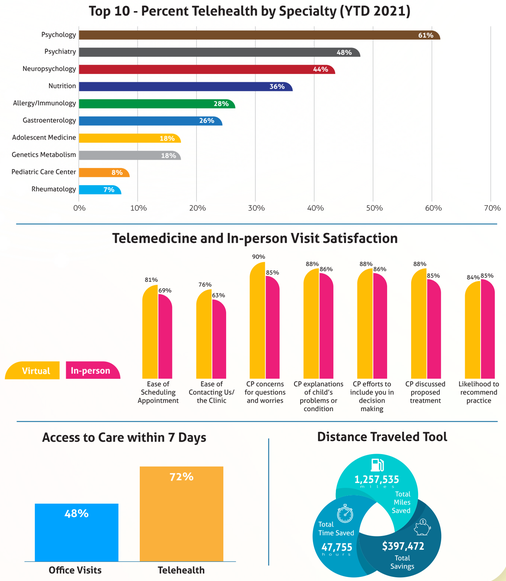
Results and Outcomes

Telehealth was an effective strategic imperative to enhance access to care and improve other key performance indicators:

From 24 specialty programs and services, the distribution by specialty in 2021 was: 51% Mental Health, 40% Subspecialty, 5% Rehabilitation Services, 93% Primary Care/Direct-to-Consumer Urgent Care, and 3% Other.







Conclusion and Looking Ahead

- Technological advances can increase healthcare accessibility, affordability and facilitate expansion of innovative virtual care services.
- Telehealth proved to be a valuable tool in managing high-risk, socioeconomically isolated and underserved children, to transform healthcare delivery.
- It is clear that telehealth plays a pivotal role in healthcare delivery and innovation to meet the needs of children and families during pandemics and beyond.
- Areas of further study: While patients report higher satisfaction, further study is warranted to compare clinical outcomes among telehealth and in-person patients. Expand data collection on patients who received virtual care and conduct quality improvement projects to address specific known health disparities using data such as race, ethnicity, sexual orientation and/or gender identity, income, education level, socio-economic status, primary language for healthcare, insurance status, food and/or housing security. Examine the effect of social determinants of health (SDOH) and patient demographics (including age, diagnosis and insurance type) on telehealth utilization.

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