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

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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 57.1% had difficulties accessing healthcare (versus 28.4% nationally). 55.2% were reported to need a specialist (compared to 34.4% 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 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). Virtual care aligns with strategic imperatives and Lean Dimensions of Customer Value, which aims to improve health outcomes and quality of care; improve access to care; reduce costs and improve satisfaction and optimize the patient experience.

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). 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/PEDS), 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.

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

- 29,480 system-wide virtual visits (YTD 2021). From all telehealth volumes consisting of 24 specialty programs and services, the distribution by specialty was: 51.04% Mental Health,
39.84% Subspecialty, 5.44% Rehabilitation Services, .93% Primary Care / Direct-to-Consumer Urgent Care, and 2.73% Other.

- Increased access to care for new patients scheduled within 7 days, currently at 60% for telehealth visits compared to 46% for in-person services. 13 out of 17 practices with over 50% within 7 days for virtual care compared to 6 practices for in-person office visits.

- In 2021, 84% of patient surveys completed (n=588) reported “likelihood of recommending” with high satisfaction on service and experience. Six additional questions tracked and compared telehealth to in-person services and telehealth scored higher in all questions. The question with the largest difference was “ease of scheduling an appointment”, in-Person: 69.52% vs. Telehealth: 80.49%.

- The distance and time travelled tool quantified the total time (47,755 hours), mileage (1,257,535 miles), and cost ($397,472) savings to our patients/families in 2021.