



Jay Maturi, Eli Cahan BBA, Susan Fernandes LPD MHP, Olga Saynina MBA, Paul Wise MD MPH, Lisa Chamberlain MD MPH

PEDIATRIC SUBSPECIALTY CARE AND TELEHEALTH: COVID'S IMPACT ON EQUITABLE UTILIZATION OF OUTPATIENT CARE

Background: The COVID-19 pandemic has disrupted health systems for children with complex medical conditions (CMCs) and enhanced reliance on telehealth (TH) capabilities. This research examines pandemic induced shifts and effects of social disparities in CMC utilization of subspecialty care in a regional children's hospital.

Methods: This cross-sectional study compared outpatient utilization for six pediatric subspecialties at Stanford Children's Hospital (SCH) between March-June 2019 (pre-pandemic) and March-June 2020 (pandemic). Patient information included age, gender, race/ethnicity, payer type, primary language, interpreter use, zip code-based poverty level, distance from home to clinic, presence of a severe condition, and new vs. established patient. Broadband availability was assessed by the residential availability with download/upload speeds >100/10Mbps. Chi-square analysis compared patient characteristics of the pre-and pandemic cohorts. Multivariable logistic regression generated odds ratios (OR) and 95% confidence limits (CI) for factors associated with completed appointments.

Results: Although total visits for CMCs fell from 41,052 pre-pandemic to 22,184 during the pandemic, there were no clinically marked shifts in demographic or insurance payer distribution. TH visits rose from 1% to 36% ($p < .0001$) but no change in patients residing in areas with low broadband access. New patients were less likely to complete visits during the pandemic period (28% vs 74%, $p < 0.001$), but significantly more likely to use TH than established patients (62% vs 52%, $p < 0.01$).

Conclusion(s): Social and subspecialty characteristics influenced patterns of service use by CMCs. Enhanced reliance on TH will require ongoing examination to ensure equitable utilization of essential hospital services.

Multivariate analyses suggested that coverage by HMO (OR=1.3, CI 1.2-1.4) and income >3 times federal poverty level (OR=1.1, CI 1.02-1.18) were significantly associated with completed visit. Neurology (OR=5.5, CI 5.0-6.1) and oncology (OR=2.4, CI 2.1-2.6) patients were significantly more likely to complete visits during the pandemic period than other subspecialties (pulmonary reference). Patients who requested an interpreter (OR 0.7, 95% CI 0.6-0.8) and patients living >50 miles from SCH (OR 0.9, 95% CI 0.8-0.99) were significantly less likely to complete TH visits.

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