106 Usage of Pediatric Telehealth by US Emergency Departments in 2019
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Study Objectives: Though a growing number of EDs receive telehealth services to care for pediatric patients, little is known about the recent usage of pediatric telehealth across all US EDs. Building upon our prior work, we aimed to characterize the usage of ED pediatric telehealth in the pre-COVID-19 era.

Methods: The 2019 National ED Inventory (NEDI)-USA survey characterized all US EDs open in 2019. Among EDs reporting receipt of pediatric telehealth services (n=460), we selected a random sample (n=130) for a second, in-depth survey on pediatric emergency care and pediatric telehealth usage (2019 Pediatric Telehealth Survey). We also recontacted a random sample of EDs that responded to a prior, similar 2017 Pediatric Telehealth Survey (n=107), for a total of 237 EDs in the final 2019 Pediatric Telehealth Survey sample. Descriptive statistics are presented as frequencies and proportions.

Results: Overall, 193 (81%) of the 237 EDs responded to the 2019 Pediatric Telehealth Survey. Among the 107 EDs first surveyed in 2017, 89 (83%) responded to the 2019 survey. Among these 89 EDs, 65 (71%) reported receiving pediatric telehealth in both 2017 and 2019, 1 (1%) in 2019 only, and 13 (15%) in 2017 only. Among the 130 EDs only surveyed in 2019, 104 (80%) responded and 85 (82%) confirmed their receipt of pediatric telehealth. Overall, 149 responding EDs confirmed pediatric telehealth receipt in 2019. Among these, few reported ever having a board-certified PEM physician (10%), a PEM psychologist (10%), or pediatrician (9%) available for emergency care. 60% reported using pediatric telehealth services less than once per month, and 20% reported using services every 3-4 weeks, although 96% reported that these services were available 24 hours per day, 7 days per week. Most received pediatric telehealth from either another hospital in their hospital system (39%) or a hospital in a different hospital system (38%). EDs most frequently used pediatric telehealth to assist with diagnosis (73%) and treatment (78%) of pediatric conditions, and with placement and transfer coordination (91%). Almost all (93%) reported using pediatric telehealth to evaluate children (1-17.9 years) and 62% for infants (<1 year). Among the EDs that confirmed pediatric telehealth receipt in both 2017 and 2019, there was an increase in EDs using pediatric telehealth for diagnosis of pediatric conditions (7%), placement and transfer coordination (11%), and staff education (13%). There was also an increase in EDs using pediatric telehealth to evaluate both children (<12) and infants (<11)

Conclusion: Most EDs receiving pediatric telehealth in 2019 had no board-certified PEM physician or pediatrician available, suggesting that telehealth services are being used to supplement access to pediatric expertise. Most EDs used pediatric telehealth services infrequently. The most common usage of pediatric telehealth was for placement and transfer coordination. We encourage future research on the effect of the COVID-19 pandemic on national usage of ED pediatric telehealth.

108 Emergency Department Crowding Resulting from a Local Health System Cyberattack

Study Objectives: Emergency department crowding continues to be a concern in many major urban emergency departments. The causes of ED crowding are complex and multi-factorial, and now cyber attack threats are contributing to this ongoing issue. We analyze the impact of a cyberattack on a large, multi-hospital health system on the already burdensome crowding in our emergency department.

Methods: This is a retrospective study evaluating the boarding of admitting patients on two EDs from a single healthcare system during an ongoing ransomware cyberattack on a neighboring health system in San Diego. One ED is in an urban level one trauma center and the other is a suburban academic hospital. They have a combined annual census of ~80, 000. Census and admitted patients from the two-week period before (April 17 through April 30, 2021) and two weeks after (May 2 through May 15, 2021) the incident started (May 1, 2021).

Results: In the study period, the number of admissions, discharges and LWBS statuses increased therefore increasing daily ED census. Between the pre- and post-cyberattack periods, the average number of admissions, discharges, LWBS and overall census increased by 46 (95% CI: 24.32, 67.68), 7 (95% CI: -1.93, 17.93), 25 (95% CI: 13.55, 36.45) and 8 (95% CI: 3.02, 12.98), respectively. The number of EDIPs increased in the post-period. The percent of admissions being held in the ED to ED census were roughly 13% in the pre-period and 14% in the post-period, demonstrating an increase in the percent of EDIPs within daily ED volume.

Conclusions: These results reveal the significant rise in ED visits and boarding as a result of the ransomware cyberattack on a neighboring health system. As these attacks likely become more common in the future, local and regional response strategies to consider the safe management of patients by other unaffected health systems may help reduce the impact on ED crowding and maintain flow in the department so a sustained surge doesn’t impact patient safety.