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Research Objective
The purpose of this mixed method study was to analyze pediatric Emergency Department (ED) population data to identify a cohort of patients using the ED for non-emergency problems; and within this cohort to understand the determinants of adult caregivers that led to their decision to use the ED.

Study Design
This was an explanatory mixed methods study. The first phase used retrospective quantitative data from the McKesson Horizon Performance Manager database to describe the population and problem. Variables of interest included diagnoses, age, ethnicity, race, insurance, the Emergency Severity Index (ESI) score, and patient services net margin. The Barton Schmitt Triage (BST) Telephone Protocols was used to identify the most appropriate treatment locale determined by the BST score, and primary language was English or Spanish.

The second phase used qualitative data from semi-structured interviews to develop an explanatory framework for the adult decision making process.

Phase 1
Pediciatric patients presenting to the ED during 7/1/2011-6/30/2012.

Convenience sample of 23 participants who met the inclusion criteria: caregivers 18 years or older with a child 0-4 years of age, presenting problem of fever, ESI score greater than 3, the ED would not have been the appropriate treatment locale determined by the BST score, and primary language was English or Spanish.

Phase 2

Population Studied

Characteristics of Phase 1 Patients Presenting to the ED

Inappropriate Use of Services

Average Age of Patients: 11.7 months

Phase 1 Patients to ED

10% of Patients < 12 mos.

90% of Patients > 12 mos.

Selected Characteristics of Phase 2 Patients Presenting to the ED

Inappropriate Use of Services

Average Age of Patients: 11.7 months

Phase 2 Patients to ED

10% of Patients < 12 mos.

90% of Patients > 12 mos.

Principle Findings

Phase 1
• 10,505 patients less than 19 years of age visited the ED
• Top two diagnoses were fever at 15.2 percent and cough at 13.9 percent
• Of these patients, 4,299 (40 percent) were less than 4 years of age, 25 percent of whom were diagnosed with fever, with 17 (0.4 percent) admitted to the hospital
• Of the patients less than 4 years of age with an ESI greater than 3 (indicating the least severity of illness) the average PSNM was $65.21, mean age was 21.7 months and presented to the ED with a mean temperature of 100.7 degrees F. The patients were predominantly insured by Medical Assistance

Phase 2
The results of the qualitative data analysis produced three themes:
• 1) Inability to discern an emergent from a non-emergent health condition
• 2) Anticipated or perceived problems with accessing primary care
• 3) Gap between reported relationship with PCP and action taken to go to ED

Conclusions
The first phase revealed a cohort of pediatric patients seen in the ED with a non-emergent problem of fever that had a negative financial impact for the health care organization. Analysis of qualitative data revealed the impact that low health literacy and the relationships and communication between primary care physicians and child caregivers had on healthcare system utilization.

Implications for Practice
The findings from this study guided administrators and clinicians to design an intervention that will address health literacy and patient engagement and communication for socially and economically disadvantaged new mothers.

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