

Are Emergency Departments Filling Up with Children?

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Introduction

When a child is sick or injured, every parent assumes that when they walk, drive or arrive by ambulance to an emergency department that there is a trained pediatric emergency physician on duty, that the nurses are all well educated and competent in the care of children and that the department is well stocked with all sizes of pediatric equipment ranging in sizes from newborn to adolescent. Most importantly, the health care team must all be trained and competent with this equipment.

All parents assume expert emergency care will be there when their children need it; but is that really so? While Emergency departments have become our nation's life line for comprehensive care, twenty four hours a day and seven days a week, parents with a sick or injured child are uninformed that major gaps in pediatric emergency care still remains. The ability for parents to access appropriate and expert pediatric medical care is very important since children's unique and subtle signs and symptoms can change rapidly and have substantial or negative outcomes.

The standardization of emergency care for children was first formally discussed in 1984 when Congress funded the Emergency Services for Children (EMS-C) program. This program was designed to encourage and stimulate emergency medical services (EMS) to respond to the unique and extremely diverse needs of children. The recent Institute of Medicine Report, Emergency Care for Children: Growing Pains (2006) reveals that after almost 20 years of efforts to standardize and integrate care for children, the emergency care system still remains disjointed and fragmented. Since children constitute a smaller percentage of all ED visits, it has remained a lower priority for funding, didactic education and hands-on training. Today, there is no national mandate for annual pediatric competencies for emergency physicians, nurses or EMS providers. This report also states that the care of children in disasters is still underfunded and does not meet national standards established by the Academy of Pediatrics.

Facts and Visits

Every year, more than 20 million children receive medical care in emergency departments. Utilization of emergency departments by children has risen as dramatically as it has for adults. It is reported that 1 in every 4 emergency

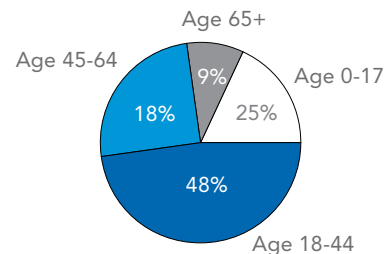
department visits involve a sick or injured child. The National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department survey, reports:

- Children under the age of 19 made more than 29 million ED visits in 2002
- The pediatric population accounts for 25% of all outpatients ED visits
- 20% of children make more than one visit per year
- 7% of children make more than two visits per year

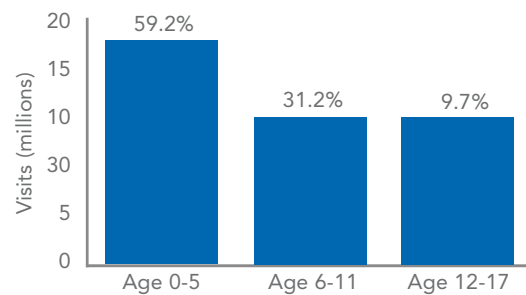
Alarmingly, 96.2% of all infants under the age of one visit an ED in their first year, more than twice the rate for all children under the age of 15 years (40 ED visits per 100.)

It is important to note nearly 89% of all pediatric emergency department visits can be classified as non-urgent or urgent.

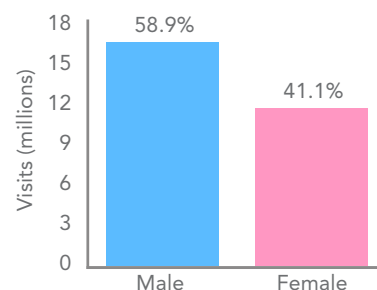
ED Visits by Age Group



ED Pediatric Visits by Age Group



ED Pediatric Visits by Gender



The IOM report, *Care Without Coverage: Too Little, Too Late* (2002) reports children without health insurance receiving public assistance are much less likely to have a primary care provider or pediatrician and are much more likely to delay care or use emergency departments for intermittent sporadic care of both acute and chronic health issues. These sporadic visits can lead to missed opportunities for preventive care, immunizations and family rapport and guidance that are so vital to the overall care of children. The lack of comprehensive primary health care for children leads to incomplete care and delays in early recognition and treatment. Other contributing factors that lead to over-utilization of emergency departments by children and their families are lower maternal age, lower educational levels and a lower income level. Phelps et al (2000) identifies as the most significant and the most striking influence in over-utilization of emergency departments is maternal recall, which she describes as strong recall of emergency department visits as a patient or their own family's response to an illness or emergency.

More research suggests that families with annual income below \$30,000 are much more likely to go to an emergency department than to an urgent care center and this behavior pattern is driven by lack of available urgent care centers in their neighborhoods and maternal familiarity with the emergency care system.

State of the Union

Specialty pediatric emergency departments comprise only 5% of all United States hospitals and only 18% of all children seek care in these facilities. These pediatric specialty facilities are all also dealing with crowding, long delays and limited inpatient services. Community hospitals should prepare to see their pediatric utilization numbers increase significantly in the future. All emergency departments need to be prepared to see children and manage their care in a confident and competent manner and must recognize this will require specialty training for all members of the health care team.

Getting Up To Code

Health care providers can't wait for a pediatric code or a disaster to become familiar with the equipment and specialty requirements to care for children. The Institute

of Medicine Report *Emergency Care for Children: Growing Pains* reports that only 6% of all emergency departments in the United States have all the appropriately sized equipment to handle any pediatric emergency.

Providing care to children is much more than the correct sized equipment, it is also recognizing the other unique challenges of dealing with children. The health care team members must familiarize themselves with age specific issues for each level of development, the child's inability to verbalize how or what they are feeling, the realities of multiple caretakers, and the providers own degree of experience or lack of experience in dealing with children and their families.

All of these challenges can lead to increased risk for errors and adverse events, especially with medications and medication delivery systems. In April 2008 Pediatrics, reported medication errors once thought to be minimal in children can actually be as high as 11 adverse events per every 100 children while they were hospitalized. Addressing the issue of pediatric medications and medication delivery systems must begin with education, training and competency requirements. Health promotion, professional education, and prevention programs focused on surveillance, research and patient education continue to be developed by associations such as the Emergency Nurses Association, the American College of Emergency Physicians and the American Academy of Pediatrics. Community emergency departments will continue to treat the growing numbers of children and their parents in their departments and must adopt these educational and training programs.

Trends and Issues

Emerging trends in the care of children that are significantly impacting the health and wellness of children include; reactive airway disease, type II diabetes and obesity. Reactive airway disease and asthma are the leading serious chronic illnesses in children in the United States and third leading cause of hospitalizations among children under the age of 15. Children who report one asthma attack a year have the highest truancy rates for all children. These emerging trends will have great influence on the health of our children and are placing increased demands on emergency departments, further stretching limited resources.

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Young faces of disaster

The initial development of the Emergency Medical Services system largely overlooked the challenging needs of children in a disaster. Today, the United States government includes the care of children in disaster in the larger group of vulnerable populations, along with disabled adults and mental health patients. Children must be recognized as a unique health population and steps must be taken to address their specialized needs. While there remains no quick fix to the obviously fragmented national response to disasters as evidenced most recently by Hurricane Katrina, we must encourage and participate in collaborative initiatives in disaster preparation.

Conclusion

Providing quality pediatric emergency care is not just about having all the right sized equipment. The delivery of care should be provided in an organized fashion, starting in the pre-hospital environment with EMS and continuing into the emergency department. Pediatric care needs to be planned and coordinated at local, state and federal levels, using evidence-based knowledge and research. Performance indicators should be tracked and monitored to ensure quality delivery of care. Inadequate insurance coverage and lack of access to appropriate preventive and primary care services are major drivers of pediatric emergency department utilization and contribute to emergency department crowding. Challenges remain for the pediatric emergency care population. Increased access to appropriate care and educating families on the importance of primary care providers decrease the number of children arriving at our nation's emergency departments and may help reduce a future generation of patients crowding our already strained departments.

References

Nawar E, Niska R, Xu J. National hospital ambulatory medical care survey: 2005 emergency department summary. Advance data from vital and health statistics; no 386. Hyattsville, MD: National Center for Health Statistics. 2007.

National Hospital Ambulatory Medical Care Survey: 2003 Emergency Department Summary. McCraig, Linda, and Burt, Catherine, Division of Healthcare Statistics, Centers for Disease Control and Prevention, May 2005

The State of America Hospitals: Taking the Pulse, American Hospital Associate, 2005.

IOM, Breaking Point, Institute of Medicine (IOM) of the National Academies, The Future of Emergency Care in the United States Health System Emergency Care for Children,; Growing Pains, -Report Brief, June 2006

<http://www.cdc.gov/nchs/PRESSROOM/05news/emergencydept.htm>

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention
National Center for Health Statistics

Ladrillo, T., Hobdell, M., and Caviness, A., Increasing prevalence of emergency department visits for pediatric dental care, 1997–2001

McCaig LF, Burt CW. National Hospital Ambulatory Medical Care Survey: 2002 Emergency department summary. Advance data from vital and health statistics; no 340. Hyattsville, MD: National Center for Health Statistics., 2004

Derlet, RW, Richards, JR, Overcrowding in the Nations ED's Annual of Emergency Medicine, 2000, 35(1) 83-85.

The IOM report, *Care Without Coverage: Too Little, Too Late*, 2002

Phelps, K., Taylor, C., Sanford, K, Factors Associated with Emergency Department Utilization for Nonurgent Pediatric Problems. Archives of Family Medicine. 200;9:1086-1092.



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