USE OF EMERGENCY DEPARTMENTS
FOR MENTAL HEALTH CARE
FOR CONNECTICUT'S CHILDREN

A RISING TIDE

EXECUTIVE SUMMARY

REPORT TWO:
STATEWIDE UTILIZATION
2001-05

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A RISING TIDE:

According to a recent survey by the Centers for Disease Control and Prevention (CDC), the national volume of emergency department (ED) visits increased by 23% between 1994 and 2003. The increase was due both to population increase and to increased rates of ED utilization.[1]

On the whole, the Connecticut trend has mirrored the national trend. Based on a recent analysis of ED utilization patterns in the state, the Connecticut Hospital Association (CHA) reports that the total volume of ED visits increased by 15% between 1995 and 2004. This volume increase was almost entirely accounted for by an increase in the rate of ED visits, as opposed to an increase in population. Hospital closures during the past two decades, coupled with increased utilization, created a growing burden on the state's medical emergency services. Some of the increase is due to the increasing reliance on the use of EDs for mental health emergencies.

To better understand the nature and extent of the problem of the use of EDs for mental health care for children, the Child Health and Development Institute of Connecticut (CHDI) undertook a two-part study. The first report, released in January, examined ED visits for psychiatric purposes made by children and youth enrolled in HUSKY A, the state's Medicaid program, between 2002 and 2005 (using the Department of Social Services' HUSKY data). The second report, of which this is a summary, describes the volume and distribution of ED visits for children with a primary psychiatric diagnosis who were seen in the EDs of all acute care hospitals throughout the state.

The Department of Children and Families (DCF) funded this work through a contract with CHDI. The research was conducted by the Human Services Research Institute.

Highlights of the Findings

The study examined ED utilization in Connecticut and documented trends in that utilization over the time period from 2001 to 2005. Data came from 31 short-term acute care hospitals in Connecticut. Information on ED visits made by children ages birth to 18 from 2001 to 2005 with a primary diagnosis related to behavioral health were extracted by CHA from the Connecticut Hospital Information Management Exchange (CHIME) database to provide the basic data for this report.

Characteristics of ED Visits

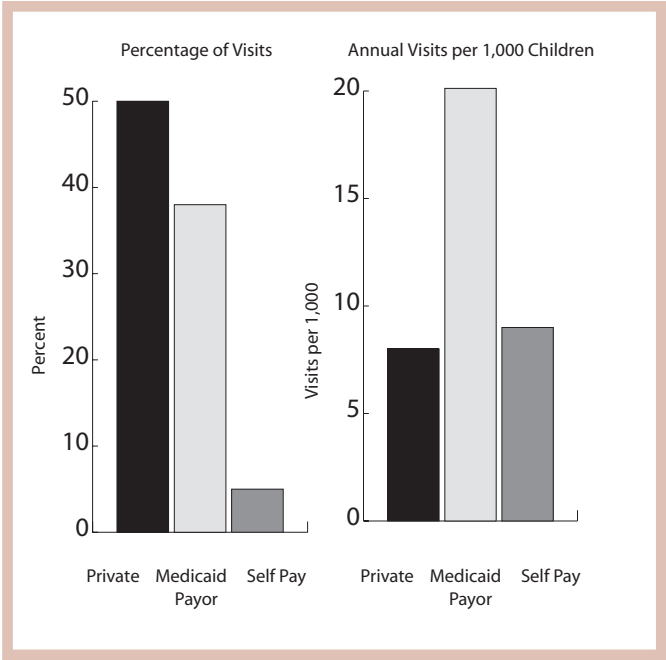
- Behavioral health visits were reported at a volume of 11 visits per 1,000 children per year.
- 86% of behavioral health visits were by children age 11 or older.
- 41% of those visits were paid by Medicaid.
- 51% were covered by private insurance.
- Medicaid enrollees were much more likely to utilize the ED.
- Children utilizing EDs were widely distributed across the state, with an under-representation of children in the southwestern part of the state.
- Yale-New Haven Hospital and Connecticut Children's Medical Center (CCMC) accounted for nearly one quarter of ED visits in the state
- Discharge to outpatient care constituted 75% of all visit dispositions, with 24.5% of visits resulting in inpatient or institutional care.

During the period 2001-05, children made 48,587 visits to Connecticut's EDs for issues connected to behavioral health, a rate of approximately 11 visits per 1,000 children per year. The vast majority of the visits (86%) were by children age 11 or older. The annual rate of visits per 1,000 children increases steadily from less than 1 for the preschool children to 29 for the late adolescents. This pattern of higher rates of behavioral health ED utilization for older children is the opposite of that found for ED visits as a whole in Connecticut (with higher rates for younger children).[2]

Medicaid was the payor for 41% of visits during the study period and another 7% were self-pay. Fifty-one percent of visits were covered by private insurance. Medicaid enrollees were much more likely to use the ED than those with private insurance (20.8 per 1,000 for Medicaid vs. 7.7 for privately insured).

Researchers examining national data on overall ED use have found similar patterns. One recent study found Medicaid enrollees to have roughly twice the ED use of the uninsured and approximately four times the use of the privately insured, on a per-capita basis.[3] The large volume of ED visits coupled with the high percentage of these visits that were covered through Medicaid or self-pay suggests that EDs are carrying a "safety-net" burden for the system, serving the uninsured and those living in poverty, who may regard the ED as their best option for access to care.

Our analysis suggests that more than half of Connecticut's hospitals are carrying a Medicaid safety-net burden, suggesting that this is a widespread system-level issue rather than an isolated condition for particular hospitals.



Although children with behavioral health ED visits come from all regions of the state, using the DCF regions and sub-regions as the unit of analysis, we found an under-representation of visits from children in the southwestern portion of the state (Bridgeport, Norwalk, and Stamford) and relative homogeneity throughout much of the rest of the state. The per-capita rate of visits for the southwestern region was 6.6 visits per 1,000 children per year, substantially lower than the rates for the other regions which range from 10.7 (the Northwestern region) to 12.9 (the Eastern region).

Two hospitals that specifically serve children – Yale-New Haven Hospital with a total of 6,614 visits over the five years, and CCMC with a total of 4,897 visits – together accounted for nearly one-quarter of all ED visits during the study period. The numbers drop from there, but four other hospitals had more than 2,000 visits during this same period (Waterbury with 2,733; Manchester Memorial

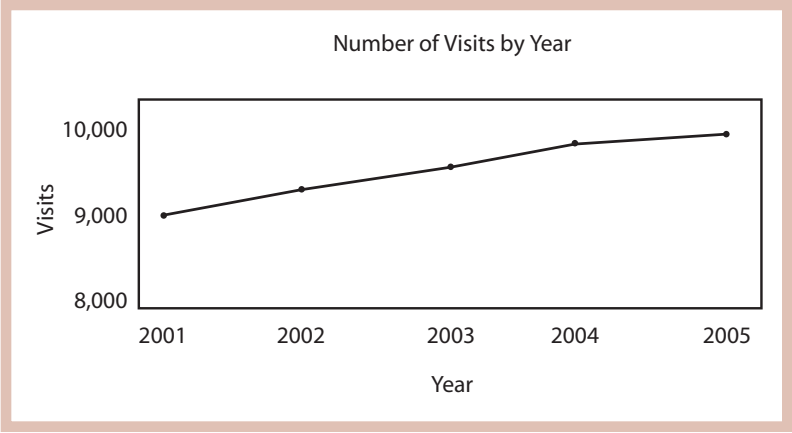
with 2,648; Lawrence & Memorial with 2,222; and Danbury with 2,169).

Across the five years of the study, discharge to outpatient or self-care constituted 75% of all visit dispositions with 24.5% of visits resulting in inpatient or institutional care and a tiny fraction – 251 visits or about 0.5% – leaving against advice or dying while in care.

Trends in ED Visits Over Time

- 11.7% increase in pediatric behavioral health ED visits
- The increase in behavioral health visits more than double the rate for all ED visits in Connecticut.
- Visits by older children increased considerably more than those by younger children.
- The overall increase in visits is related to the increased volume of new enrollees in Medicaid (26% increase in enrollees during the study period).
- Medicaid recipients have substantially higher rates of behavioral health ED utilization than children with private insurance or with no insurance.
- The rate of Medicaid recipients and commercially insured patients increased slightly during the study period.
- The largest increase in annual visits was at CCMC – more than double the number of any other hospital.

During the study time period, Connecticut saw an 11.7% increase in pediatric behavioral health ED visits, a change not attributable to an increase in Connecticut's child-age population. The increase in the number of behavioral health ED visits per thousand population (2001-05) is approximately twice that of all ED visits in Connecticut (2001-04) reported in a recent study by the Connecticut Office of Health Care Access (11.7% for behavioral health visits vs. 4.9% for all visits). Visits for older children increased considerably more than those for younger children. Most of the increase occurred between 2001 through 2003, after which the rate of increase leveled off considerably.



The analysis suggests that the high volume of visits to Connecticut's EDs and the increase in visits over time are closely tied to the state's Medicaid population. Five interconnected findings support this conclusion:

1. The 11.7% increase in behavioral health ED utilization remains after taking into account changes in the size of Connecticut's overall child population.
2. The observed increase during the study time period is almost entirely among visits paid for by Medicaid. These rose over 30% over the five-year interval.
3. Medicaid recipients have substantially higher rates of behavioral health ED utilization than those with private insurance or those without insurance. According to the CHIME data, the rates for Medicaid recipients are more than twice those of the other groups.
4. Enrollment of children into HUSKY A and B, the state's programs for Medicaid and

SCHIP, have increased by approximately a quarter during the study timeframe.

5. The *rate* at which Medicaid recipients and commercially insured children use ED facilities appears to be slowly increasing.

From these findings, we conclude that the increase in children's ED utilization for behavioral care is driven by an increase in Medicaid enrollments and the high rates at which Medicaid recipients use the ED compared to other groups. An in-depth analysis of ED visits made by children covered through HUSKY A are presented in a separate report.[4]

The increase in ED visits was not shared equally among Connecticut's hospitals. Eight hospitals experienced a net decline in visits over the study period. The largest increases in numbers of annual visits comparing 2005 to 2001 levels occurred at CCMC (increase of 469 visits), the Hospital of St. Raphael in New Haven (215), St. Vincent's Hospital in Bridgeport (166), Yale-New Haven Hospital (164), and Danbury Hospital (159).

Increased ED utilization for children with behavioral health diagnoses occurs in the context of a service system that is overburdened and under-resourced. Qualitative data obtained through a small number of interviews with caregivers and service providers suggest that Connecticut's behavioral health system for children tends to funnel families with children who have behavioral disorders towards EDs as an expeditious way to obtain immediate treatment, gain entry into the system, and get proper assessment and referral for their child's behavioral health needs.

Conclusion

During the period between 2001 and 2005, Connecticut's rates of ED utilization have been on the increase. The magnitude of the increase in children's rates of ED utilization specifically for behavioral health diagnoses has increased about twice as much as the increase in all ED visits. The data analyzed for this report does not warrant a firm conclusion about the precise nature of the problem that these results indicate. But it is clear that children enrolled in HUSKY account for a significant portion of this increase, and the burden is falling most heavily on urban hospitals, most significantly CCMC.

The observed increase in pediatric behavioral health-related ED visits may be a sign of rising behavioral problems among Connecticut's children resulting in a higher frequency of emergencies, or gaps in the state's broader system of care for routine behavioral health resulting in a larger number of non-urgent cases ending up in EDs, or a combination of both. In order to better understand the underlying causes, more study is needed on (a) the urgency status of pediatric behavioral health cases coming to EDs and (b) the circumstances under which parents, guardians, schools, or police make the decision to take a child to an ED rather than another type of health care facility.

In order to address the problem of overcrowded and overburdened EDs, Connecticut will need to examine the system of care provided for children with behavioral health problems and the precise nature of the circumstances that result in ED visits by these children

in order to ensure that the state is providing adequate resources to assess, evaluate, and provide effective treatment for our most vulnerable children and families.

As the rate of increase leveled off after 2003, when Connecticut began to invest in more community-based services, it will be helpful to monitor the trend year by year, to see if a continuing expansion of these services will lead to a decrease in the problem.

[1] L.F. McCraig and C.B. Burt. "National Hospital Ambulatory Medical Care Survey: 2003 Emergency Department Summary." CDC *Advance Data* No. 358, May 26, 2005.

[2] Connecticut Voices for Children, 2005. *Emergency Care for Children in HUSKY A: CY 2005. CT: New Haven.*

[3] L.F. McCraig & E.W. Nawar, "National Hospital Ambulatory Medical Care Survey: 2004 Emergency Department Summary", CDC, *Advance Data from Vital and Health Statistics*, No. 372, June 23, 2006, p.4.

[4] Mulkern, V., Raab, B., Potter, D. *A Rising Tide: Use of Emergency Departments for Mental Health Care for Connecticut's Children. Report One: Children Enrolled in HUSKY A.* Child Health and Development Institute. January, 2007. CT: Farmington.

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