According to a report by the Urban Institute, more than 800,000 children in the United States spend time in foster care each year as a result of abuse and neglect. Foster children are at particularly high risk for physical and mental health problems stemming from not only the maltreatment they have experienced but also the separation from their homes and families, and the continuing disruptions to their daily lives.

This Issue Brief summarizes key findings of a recent study that evaluated a variety of health care measures to compare children between the ages of 1 and 18 in out-of-home placement to other low-income children enrolled in New Hampshire Medicaid during state fiscal year (SFY) 2007. Children in out-of-home placement includes those in either residential placement or family foster care. This study assessed their placement history, health status, access to care, disease prevalence, utilization, and health care payments.

**Study Population**
For SFY2007, 262 children in residential placement, 1,082 in family foster care, and 71,319 in the low-income Medicaid comparison group were studied. Children in residential placement were more likely to be adolescents (78%), compared with children in family foster care (37%) or the low-income group (34%). Children in residential placement were more likely to be male (59%) compared with family foster care (50%) or the low-income comparison group (51%).

**Well-Child Visits by Age and Study Group, SFY2007**

Access to Primary Care
Almost all children in out-of-home placement had access to primary care during the study period. Children in out-of-home placement were more likely to have had at least one visit with a primary care practitioner and more likely to have a well-child or adolescent well care visit compared with the low-income comparison group and with both the national Medicaid and commercial managed care rates. Despite this, some children in out-of-home placement did not receive a well-child preventive visit, and the likelihood of not having a well-child preventive visit increased with the age of the child.

**Disease Prevalence**
Compared to the low-income Medicaid comparison group, children in out-of-home placement had higher prevalence of nutritional or metabolic disorders, mental disorders and mental retardation, epilepsy, convulsions, blindness, and congenital anomalies. Children in residential placement had higher prevalence of digestive and genito-urinary conditions, skin problems, musculoskeletal disorders, abdominal pain, and injuries.

**Utilization**
The rate of inpatient hospitalization was higher in children in residential placement (259 per 1,000 members) and family foster care (66 per 1,000 members) than the low-income comparison group (27 per 1,000 members). This pattern was consistent over all age groups and by gender. The rate of outpatient emergency department visits was higher in children in residential placement (1,358 per 1,000 members) and family foster care (657 per 1,000 members) than the low-income comparison group (560 per 1,000 members).

Injuries, respiratory illnesses, and mental disorders accounted for 61% of the outpatient emergency department visits incurred by children in out-of-home placement. The rate of use of dental services in children in residential placement (2,820 services per 1,000 members) was higher than children in family foster care (1,979 per 1,000) and the low-income comparison group (1,427 per 1,000).

The rate of prescription drug use for children in residential placement was three times the rate for children in family foster care and seven times the rate for the low-income comparison group. For each of the major drug therapeutic categories, the rate of days supplied per member per year was highest in children in residential placement, lower in children in family foster care, and lowest in the low-income comparison group.

**Mental Health Disorders**
The prevalence of any mental health disorder among adolescents in residential placement (90%) and family foster care (82%) was significantly higher than adoles-
Mental disorders accounted for 50% of the inpatient hospitalizations for children in out-of-home placement. The rate of psychotherapy visits was significantly higher for children with mental disorders in residential placement (11,406 per 1,000 members) or family foster care (11,893 per 1,000) compared to the low-income Medicaid comparison group (6,181 per 1,000).

Children with a serious mental disorder who used psychotropic medication had more intensive medication use in residential placement (531 days per year) than children in family foster care (465 days per year) or the low-income comparison group (366 days per year). Children can have more than 365 days supplied during a year because they may be taking more than one psychotropic medication at the same time.

Payments
The 1,344 children in out-of-home placement incurred $22.3 million in Medicaid payments during SFY2007: $10 million for children in residential placement and $12.3 million for children in family foster care. After removing services unique to special Medicaid populations, the payment rate for children in residential placement ($807 PMPM) was more than double the payment rate for children in family foster care ($369 PMPM) and more than five times the payment rate for the low-income comparison group ($142 PMPM). Primary drivers of the higher payments for children in out-of-home placement were inpatient hospital, inpatient psychiatric, outpatient hospital, prescription drugs, mental health centers, and psychology claims.

Limitations
Claims and eligibility data are constructed primarily for administrative purposes, which poses some limitations. Certain information, especially diagnoses, may be under-reported. The residential placement population studied was small and the resulting rates for that group of children in out-of-home placement may be subject to less statistical precision. In addition, the residential placement group may have some services bundled in residential service claim billings which may impact the reliability of some measures.

Conclusion
NH children in out-of-home placement had higher rates of disease, mental disorders, utilization, and payment rates compared with other low-income children covered by Medicaid.

The out-of-home placement group did have higher rates of well-child preventive visits than the comparison low-income group and national managed care rates, but the rates decline with age and about one-third of adolescents in out-of-home placement did not have a well-child preventive visit.

These results indicate that children in out-of-home placement are getting preventive care at higher rates than other children in NH Medicaid or national averages. However, these findings could also indicate that children in out-of-home placement had unmet need (e.g., delayed immunization, dental care) that are now being met after placement and children in out-of-home placement were more likely to be hospitalized and use the outpatient emergency department than other children.

Mental health disorders were common in children in out-of-home placement, with significantly higher rates in the residential placement group. There was some evidence that children in out-of-home placement had more intensive psychotropic medication use, but this might be driven by multiple coexisting mental health disorders. Additional value could be gained from further study of coexisting mental health disorders and the use of psychotropic medications among children in out-of-home placement.

About the New Hampshire Comprehensive Health Care Information System
The New Hampshire Comprehensive Health Care Information System (NH CHIS) is a joint project between the New Hampshire Department of Health and Human Services (NH DHHS) and the New Hampshire Insurance Department (NHID). The NH CHIS was created by state statute (RSA 420-G:11-a) to make health care data "available as a resource for insurers, employers, providers, purchasers of health care, and state agencies to continuously review health care utilization, expenditures, and performance in New Hampshire and to enhance the ability of New Hampshire consumers and employers to make informed and cost-effective health care choices." For more information about the CHIS please visit www.nhchis.org or www.nh.gov/nhchis.