

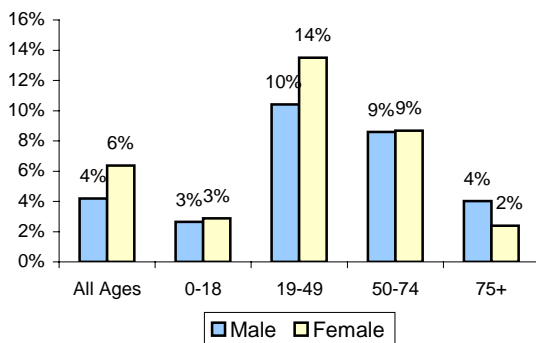


This study evaluated frequent outpatient emergency department (ED) use by New Hampshire (NH) Medicaid members. A frequent ED user was defined as a member with four or more outpatient ED visits during the year. This report provides a detailed evaluation of the prevalence, utilization, and payments associated with frequent ED utilization among the NH Medicaid population. The study used NH Medicaid administrative eligibility and claims data for services rendered during calendar year (CY) 2006, and builds upon a 2007 study that compared outpatient ED use rates among members enrolled in NH Medicaid with members enrolled in NH CHIS commercial plans. The results of that study indicated that NH Medicaid members had an outpatient ED visit rate that was 4.4 times higher than CHIS commercial, and that repeat ED use was rare in the CHIS commercial population.

Prevalence

Prevalence of frequent ED use varied by age, gender, and eligibility category. Among the 106,068 average covered NH Medicaid members, 42,723 (40%) had at least one outpatient ED visit during the year, and 5,757 (5%) met the definition of a frequent ED user.

Prevalence of Frequent ED Use by Age and Gender, CY2006



Prevalence of frequent ED users was lowest among children and the elderly, and highest for adults between 19-49 years of age. While adults age 19-49 represented 22% of the average members covered by Medicaid, they represented 51% of the frequent ED users. Overall, females had a frequent ED user prevalence rate (6%) that was 52% higher than males (4%). Teen females age 15-18 and adult females 19-49 years of age contributed to this difference. Medicaid members with income less than 100% of the Federal

Poverty Level (FPL) were twice as likely to be frequent ED users compared with other Medicaid members.

Utilization and Costs

While frequent ED users represented only 5% of the Medicaid population, they incurred 41% of the total Medicaid outpatient ED visits during CY2006, resulting in \$7.8 million in payments. Frequent ED users who are not also enrolled in Medicare (Medicaid-only) resulted in \$6.6 million (38%) of the total outpatient ED payments for Medicaid-only members. Dual eligible members (those also eligible for Medicare) who were frequent ED users resulted in \$1.2 million (48%) of the total outpatient ED Medicaid payments for dual eligible members. Frequent ED users also had higher rates of office-clinic visits and higher rates of ED visits resulting in an inpatient hospitalization compared to all other Medicaid members.

Standardization for age differences was made in the comparison of the Medicaid-only frequent ED population to all other Medicaid members. The age-standardized rate of outpatient ED visits for frequent ED users was 8.6 times the rate for all other members. The age-standardized rate of office-clinic visits for frequent ED users was 1.9 times the rate for all other members. The age-standardized rate of ED visits resulting in inpatient hospitalization for frequent ED users was 6.6 times the rate for all other members. These differences indicate that frequent ED users also used other services at higher rates than other members.

While most Medicaid frequent ED users were not very high cost members (annual payments were less than \$15,000), frequent ED users were more likely to be higher cost than all other Medicaid members.

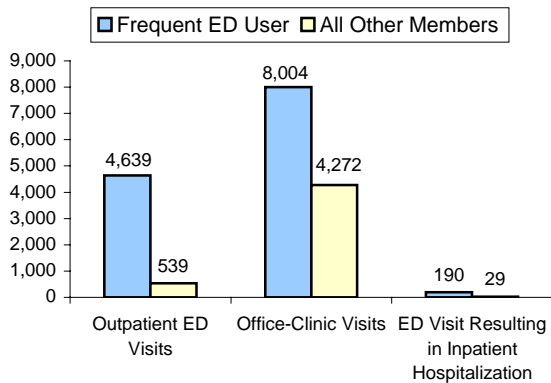
Among the 5,757 frequent ED users, the average time between the first and second outpatient ED visit was 50 days. The cause of the second ED visit was in the same diagnostic group for 1,061 (18%) of the frequent ED user second visits. While frequent ED users use the ED more than all other members do, the pattern of outpatient ED use by day of week was not significantly different between frequent ED users and all other members.

Access to Primary Care Practitioners

Numerous studies have linked higher rates of ED use to inadequate access to primary care. However, standard-

ized for age differences, Medicaid-only frequent ED users had higher rates of accessing primary care (91.5%) compared to other Medicaid members (82.7%), while Medicaid-only frequent ED users had the same rate of preventive visits with primary care practitioners as all other Medicaid members (52.7%). These results indicate that frequent ED users in NH did not have a significant problem with access to primary care practitioners or preventive visits compared to other Medicaid members.

Age-standardized ED Utilization, per 1,000 Members. NH Medicaid-only, CY2006



Clinical Diagnostic Categories

Using the diagnosis on the administrative claims, ED visits were aggregated into clinically meaningful groupings. Frequent ED users made frequent use of the outpatient ED for conditions that have often been identified in prior studies as most often non-urgent or treatable in the primary care setting. Upper respiratory infections, otitis media, superficial injury, sprains and strains, and viral infections were leading reasons for children, while disorders of teeth and jaw, sprains and strains, abdominal pain, headache, back problems, and complications of pregnancy were other leading causes for adult eligibility groups. Outpatient ED visits related to dental problems, headaches, and lower back problems had higher prevalence in frequent ED users compared with all other Medicaid members.

Trends

The total number of outpatient ED visits increased by 4,492, from 86,900 in CY2005 to 91,392 in CY2006. Low income children, low income adults, and disabled mental eligibility groups contributed to the greatest increase in outpatient ED volume, but all eligibility

groups had increased rates. Between CY2005 and CY2006, the outpatient ED use rate increased by 4.2%, from 827 per 1,000 members to 862 per 1,000 members. The number and prevalence of Medicaid frequent ED users increased slightly from 5,418 (5.2%) to 5,757 (5.4%) between CY2005 and CY2006.

Geographic Variation

ED utilization rates were evaluated by the location of the member’s residence. Standardized for age differences, members living in the areas of Franklin, Laconia, and Dover had the highest ED visit rate and highest prevalence rate of frequent outpatient ED users. The lowest rates were in the Woodsville, Keene, and Peterborough areas.

Limitations

Claims and eligibility data are constructed primarily for administrative purposes, which poses some limitations. Other information, especially diagnoses, may be under-reported. Variances in provider or insurer claims coding, data processing, or reimbursement arrangements may also contribute to the variances shown in this report. Although comparisons were made to all other Medicaid members, the study did not measure the underlying disease status of frequent ED users compared to all other Medicaid members.

Conclusion and Next Steps

Frequent ED users were prevalent in NH Medicaid and contribute to a large proportion of total outpatient ED use. All eligibility groups contributed, but rates were higher among adults. A significant amount of frequent outpatient ED use was associated with conditions for which the primary care office or clinic setting is generally a more appropriate source of care. Frequent ED users also had higher office-clinic visit rates, higher ED visits resulting in inpatient hospitalization rates, and higher primary care access rates than other Medicaid members. These findings suggest that frequent ED users may have higher rates of illness or disease compared with other Medicaid members. Increased prevention and improved wellness may reduce frequent ED use. There would have been \$2.1 million in savings if each frequent ED user had just one less outpatient ED visit during the year. Further statistical modeling of factors associated with frequent ED use may identify which factors are most important in reducing use. Incorporating an illness risk grouper in a future analysis would also be useful.

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.