This study describes outpatient hospital ED use in the NH Medicaid and NH commercial populations using administrative, eligibility and claims data from coverage year 2005. Outpatient hospital ED use was contrasted with office-clinic visit use rates and analyzed by age, gender, Medicaid eligibility group, and the Health Analysis Area (HAA) of the member’s residence. Finally, a method was developed to identify 15 diagnostic groups that had high ED use, were least likely to have an ED visit resulting in inpatient hospitalization, and were more likely to have treatment provided in the office-clinic setting.

**Overall Findings**
The results indicate that NH Medicaid members, like Medicaid members national are frequent users of the hospital ED as a usual source of outpatient care.

► Among 105,054 NH Medicaid members studied, 41,296 (39%) had at least one ED visit and 18,145 (17%) had multiple ED visits during the year. NH Medicaid members incurred a total of 86,989 ED visit, a rate of 828 per 1,000 members.

► National Medicaid/SCHIP ED use rates are estimated at 803 per 1000 members which is similar to NH Medicaid without SCHIP ED use rates.

► NH commercial members had an ED use rate of 188 per 1,000 members. The rate of ED use among NH Medicaid members was 4.4 times higher than the rate among NH commercial members.

► Comparing the ratio of ED visits to office-clinic visits, the ratio was 3.1 times higher in NH Medicaid (0.18) compared to NH commercial (0.06).

**Repeat Emergency Department Users**
► For NH Medicaid, 17 percent of members used the ED multiple times during the year, while only 3 percent of NH commercial members used the hospital ED more than once during the year.

► Multiple ED users accounted for 73% of all NH Medicaid ED use.

► Among the 18,145 NH Medicaid members who made multiple trips to the ED during 2005, 1,634 (9%) did not have any office or clinic visit during the year suggesting that a proportion of the NH Medicaid population may not have a physician or clinic as a usual source of care.

**Use by Medicaid Eligibility Group**
While the majority of NH Medicaid members are children, who contribute to high ED use rates, this study revealed that ED use rates per member covered were higher among NH Medicaid adults compared with children.

► The NH Medicaid non-disabled children had an ED use rate of 561 per 1,000 and ED visit to office visit ratio of 0.15 ED visits per office-clinic visit.
The NH Medicaid non-disabled adults had an ED use rate of 1,350 per 1,000 and ED visit to office visit ratio of 0.23 ED visits per office-clinic visit.

While the NH Medicaid permanently and totally disabled population is significantly smaller than the non-disabled adult and child populations their ED use rate was significantly higher.

The NH Medicaid permanently and totally mentally disabled population had the highest ED use rate (1,534 per 1,000) and ED visit to office visit ratio (0.26 ED visits per office-clinic visit).

Selected Diagnoses
Fifteen diagnostic groups selected for special study (e.g., upper respiratory, ear infection, low back pain) contributed to 25,600 (almost 30%) of the total 86,989 NH Medicaid ED visits. These ED visits represent visits that may be most likely (although not always) treatable in a primary care office or clinic setting.

The ED visit rate for these conditions was 5.7 times higher in the NH Medicaid population compared to the NH commercial rate. This indicates that even for conditions that might be non-urgent or primary care treatable, NH Medicaid members use the ED at significantly higher rates.

| Hospital Emergency Department and Office-Clinic Visits for Selected Diagnoses  
| NH Medicaid and NH Commercial Members, 2005 |
|-----------------|-----------------|
| **Medicaid**    | **Commercial**  |
| Emergency Department Visits Per 1,000 Members | 244 | 43 |
| Office-Clinic Visits per 1,000 Members | 1,128 | 715 |
| Ratio of Emergency Department Visits to Office-Clinic Visits | 0.22 | 0.06 |

Geographical Variation
Significant variation existed in NH Medicaid and NH commercial ED rates by the geographical area (Health Analysis Area) of the member's residence.

Southern NH areas had lower ED rates compared to northern NH in both the NH Medicaid and commercial populations. The lowest ED visit rates were found in the southern NH HAA:s: Peterborough, Keene, Exeter, Derry, Manchester, and Nashua.

The highest relative rates of ED use are found in central and northern NH.

The highest volume of ED use is found in southern NH where the majority of the population resides.

Limitations
The NH commercial population contains only that information on those residents whose claims are included in the NH Comprehensive Health Care Information System database, which generally includes only those members whose policies were purchased in New Hampshire. Areas close to the borders of New Hampshire may be less well represented than areas in the interior.

Conclusion and Next Steps
These study results suggest opportunities to reduce NH Medicaid ED use for non-urgent and primary care treatable conditions. A high proportion of ED use in NH Medicaid was due to members who had multiple ED visits with some of these ED users having no physician office or clinic visit during the year. This suggests opportunities to develop an additional study of NH Medicaid members who use the hospital ED as their primary source of care. NH Medicaid members who use the hospital ED and do not use physician office or clinic visits may also have lower rates of preventive service that could contribute to long term higher cost.

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 contact Andrew Chalsma, NH DHHS, achalsma@dhhs.state.nh.us.