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Analysis of Emergency Department Use In Maine: A Study Conducted on Behalf of the Emergency Department Use Work Group of the Maine Advisory Council on Health System Development

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Karl Finison at Onpoint Health Data produced the analyses based on hospital discharge data that are included in the report. He and the research analysts at Onpoint Health Data are valued colleagues in this research. The analysis of potentially preventable visits presented in this report borrows a methodology developed by Mr. Finison with medical consultants in the New Hampshire Medicaid Program.

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EXECUTIVE SUMMARY

In 2008, Maine's Advisory Council on Health System Development established a Work Group to study hospital emergency department utilization and, based on an analysis of utilization patterns, to make recommendations for policy interventions. This report presents findings from research to support that effort.

An earlier report described analyses based on hospital discharge data and medical claims data that analyzed and compared rates of emergency department use by health service areas within Maine, by different age cohorts, and different insurance coverage groups.

This report presents additional statewide analysis of emergency department (ED) utilization and also the results of a comparative analysis of six health service areas in Maine, three selected for above average rates of emergency department visits, and three selected for below average rates of emergency department visits.

The statewide analysis focused on identifying high volume diagnoses and potentially preventable emergency department visits both statewide and for specific patient cohorts identified by age and payer source (insurance coverage). These analyses were based on 2006 hospital discharge data. Key findings from this analysis include:

- Among infants under age one, top volume diagnoses do not vary among privately insured, MaineCare, and uninsured children and include, otitis media, upper respiratory infection, fever, and unspecified viral infection.
- Infants covered by MaineCare and uninsured infants made frequent visits for diagnoses including diaper rash, teething problems, and "fussy infant." These diagnoses were far less frequently seen among privately insured infants.
- The top diagnostic reason for an emergency department visit among both MaineCare and uninsured young adults aged 15 through 24 *and* adults aged 25 through 44 was dental disease.
- Fourteen diagnoses, all conditions that are frequently seen and treated in office and clinic settings, account for between a fifth and a quarter of total emergency department visits, depending on the health service area of the state. Most of these visits are preventable if care can be provided in an alternative setting.

The comparison of six health service areas in Maine was based on focus groups with MaineCare emergency department users in each selected area, interviews with hospital administrators and providers in each area, and analysis of population health, demographic and health system factors and data. The purpose of this analysis was to try to identify factors that can explain the reasons for high or low emergency department use. Key findings from this analysis include:

- The high use health service areas have substantially higher rates of emergency department visits for the fourteen potentially preventable visit diagnoses.

- A larger percent of the populations in the high use areas use the emergency department than in the low use areas.
- There was no discernable pattern associating high or low ED use with poverty rates, mortality rates, prevalence of health risk factors or chronic disease, or insurance status.
- While there is a statistically valid correlation between high and low emergency department use rates and physician to population ratios, there are many exceptions to the pattern. In addition, almost all providers interviewed stated that trends over time have been toward higher provider ratios at the same time that ED use has increased rapidly. Thus provider shortages cannot be implicated directly in driving high emergency department use.
- Health system factors that appear to mitigate emergency department visit rates include: availability of walk-in clinics, reserving slots in primary care practices for same day appointments, and availability of after-hours medical advice and triage.
- Patients who make emergency department visits complain of long waits for medical appointments, high physician turnover (in rural high use areas), difficulty taking time from work for medical appointments, and the inefficiency inherent in going one place for an appointment and another for diagnostic testing or treatment.

The comparative analysis, particularly interviews with providers, indicated that the problems encouraging emergency department use are endemic and the differences between high and low use areas are a matter of degree rather than absolutes.

Based on a synthesis of findings from the various analyses undertaken, the report identifies eight areas to be considered for policy interventions. These areas are:

- Reimbursement: current reimbursement systems reward high utilization and provide no incentives for providers to work to reduce ED use.
- Lack of sufficient service availability for same day, urgent care needs.
- Lack of sufficient service availability for medical advice and consultation in evenings and on weekends.
- Poor patient understanding of the importance of a functional provider/patient relationship and preventive health.
- Poor access for both preventive and acute dental care needs.
- Medication management: insufficient access to medical records and insufficient use of central drug use data banks hinder the ability of providers to assure patient safety and detect patient substance abuse.
- EMTALA: determining the extent to which federal “anti-patient-dumping” laws constrain treatment options and billing options at hospitals.
- MaineCare primary care case management program: the high rate of ED use by MaineCare enrollees indicate that the PCCM program is not meeting the goals of providing care management for some individuals in the program.

I. INTRODUCTION

Maine's Advisory Council on Health System Development was given a charge by the legislature in 2008 to study rising health care costs in the State of Maine, determine cost drivers, and make recommendations to the legislature on policy interventions that might mitigate the rate of increase in health care spending. In response to this charge, the Council established a Work Group to study hospital emergency department (ED) utilization and, based on an analysis of ED utilization patterns, to make recommendations for policy interventions to improve efficiency and quality of care in emergency department services in Maine. A list of members of the Workgroup is included in Appendix 3.

This report presents findings from the second phase of a study intended to inform the development of policy recommendations by the Work Group and the Advisory Council on Health System Development. The analyses included in this report were conducted by the Cutler Institute of the Muskie School of Public Service and Onpoint Health Data. This work was supported jointly by a grant from the Maine Health Access Foundation and a Cooperative Agreement with Maine's Department of Human Services.

The first phase of this study used hospital discharge data and insurance claims data to profile patterns of emergency department use and uncover differences in ED use associated with different age cohorts, health service areas, and insurance coverage groups in Maine. These findings are presented in a separate report (Kilbreth et al, 2009). Among the key findings from phase one were:

- Maine's emergency department use in 2006 was, in aggregate, about 30 percent higher than the national average.
- Maine's rate of use in every age cohort was higher than the national average. The age groups where Maine's experience was most disproportionate compared to national norms was among 5 to 14 year olds and 15 to 25 year olds.
- Use of emergency department care by MaineCare members in 2006 was substantially higher than privately insured residents. A higher rate of admissions resulting from emergency department visits among MaineCare members suggested a higher level of morbidity in this population. However, the high percentage of MaineCare members using the emergency department for at least one visit suggests that other factors contribute to ED use by this population.
- The rate of emergency department use varies substantially by health service area in Maine, with the highest use area having a rate almost 90 percent above the state average and the lowest use area having a rate 26 percent below the state average. High use areas are found in both urban and rural locations. In high use areas, ED visit rates are higher for both privately insured and MaineCare populations, suggesting causal factors that affect the entire population. However, having a high concentration of MaineCare residents also contributes to raising the average rate of a health service area.

The purpose of the phase two analyses presented in this report was to determine, to the extent possible, the reasons for different rates of use revealed in the study's phase one by examining emergency department use patterns of specific age and health coverage cohorts and of specific health service areas. The ED study group selected three health service areas in Maine with per capita ED use rates higher than Maine's average rate, and three health service areas with ED use rates lower than the average. In each of these areas, research staff have gathered the following information:

- Area profiles of disease prevalence, age distribution, income distribution, and employment.
- Health Service Area-specific emergency department use data based on further analysis of hospital discharge data.
- Area profiles of numbers of primary care providers, dentists, and selective information on physician practice hours of operation, scheduling protocols, and after hours policies.
- Interview data from hospital administrators and emergency department clinical providers providing information on hospital policies as well as hospital and provider perspectives on use patterns and utilization drivers.
- Interview data from community-based primary care physicians providing a physician perspective on use patterns and utilization drivers.
- Focus groups with participants in the MaineCare program who have made at least two Emergency department visits in the past year, to gain a patient perspective on reasons for ED use.

In addition to the comparative study of the six health service areas, this study includes three additional statewide analyses based on hospital discharge data. These analyses are: a review of per capita rates of certain potentially preventable ED visits within each health service area in the state; a review of the most frequently seen diagnoses by specific age/insurance cohorts; and an analysis of the correlation, statewide, of the primary care physician-to-population ratio and ED use rates.[1]

Section II describes the study methods. Section III of the report presents the findings from the new statewide data analyses. Section IV presents the comparative analyses of the six selected health service areas, based on hospital discharge data and secondary data collection. Section V summarizes findings from the focus groups with MaineCare emergency department users. Section VI presents an analysis of health system characteristics associated with high and low emergency department use, based on the study of six health service areas. Section VII presents an analysis of patient characteristics that contribute to high emergency department use, based on the focus groups with MaineCare emergency department users and interviews with providers. In Section VIII, we present options for consideration for policy changes targeted to reducing potentially avoidable emergency department visits.

[1] The correlation analysis is presented courtesy of the Maine Health Quality Forum which assembled the necessary physician data and conducted the correlation analysis.

II. STUDY METHODS

The purpose of this study was to analyze factors that may contribute to high rates of use of hospital emergency departments in Maine. The study builds on prior analysis using hospital discharge data and insurance claims data to describe patterns of emergency department use in the state.

The basic framework for the study was a comparative analysis of six Maine health service areas (HSAs) – three selected for emergency department use rates that were above the state average rate in 2006 and three selected for below average use rates. In addition, some analyses were conducted looking at the emergency department use of specific age cohorts and insurance coverage cohorts to better understand use patterns that contribute to high ED use.

This study made use of multiple data sources including: interviews with hospital administrators, emergency department providers, and community providers; focus groups with MaineCare enrollees; analysis of hospital discharge data; and collection and analysis of population health and demographic data on a county and health service area specific basis. Each of the data sources and methods of analysis is described below.

Hospital Discharge Data

Maine Health Data Organization (MHDO) hospital reports provide information on all emergency department visits for all users of Maine hospitals including uninsured, Medicare, Medicaid, privately insured and self-pay patients. We analyzed data for the year 2006 because our earlier analysis of Maine hospital experience used 2006 data. In order for the analyses in this report to build a more complete picture of ED use on a health service area specific basis, or an age-cohort specific basis, it was important to maintain continuity of the data. Otherwise, it would be difficult to determine whether differences found in the present analysis derived from changes over time or from new variations in utilization not discerned in the earlier analyses.

Hospital discharge analyses were restricted to residents of Maine. Visits to Maine hospitals by residents of other states or countries were not included. Conversely, we did not have access to data for visits made by Maine residents to hospitals out of state.

Emergency Department visits were tabulated by age group, gender, Hospital Service Area (HSA) and source of payment defined as follows:

- *Hospital Service Area*
  There are 32 hospital service areas in Maine comprised of the towns surrounding a hospital location where the plurality of residents' care is received at that hospital. When two hospitals are located in the same town or city, they share a service area.

- *Source of Payment*
  The expected source of payment coding available on the hospital discharge records can be aggregated into five groups as follows: Medicare, Medicaid, privately insured, uninsured, and

other. In this report, emergency department use is reported for the three groups: Medicaid, privately insured, and uninsured.

- *Emergency Department Visit*
  Emergency department visits were identified using standard coding systems for hospital billing: Uniform Billing (UB) Revenue Codes or CPT codes (Current Procedural Terminology). Both of these systems include multiple codes that refer to emergency department care. The comprehensive list of codes applied in this study follows the system developed by the National Committee for Quality Assurance (NCQA) Health Effectiveness Data Information Set (HEDIS). This method assured that this study's findings with regard to Maine can be compared to national studies of ED use.

  Outpatient emergency department visits that did not result in a hospitalization and visits that resulted in a hospitalization are reported separately. Throughout the report, when the term "outpatient emergency department (ED) visit is used, the data exclude visits that result in a hospital admission.

- *Diagnosis*
  The clinical diagnosis associated with each ED visit was assigned using the ICD-9-CM (International Classification of Diseases, Ninth Revision) code available on the hospital discharge data and administrative claims.

- *Frequent Users*
  Frequent users are defined as individuals who make four or more visits to an emergency department over the course of a year.

Analysis Methodology

The hospital discharge data is used in four types of analyses: determining population rates of emergency department visits; determining the proportion of visits attributable to high users and the proportion of visits that result in a hospital admission; measuring the proportion of visits attributable to certain diagnoses selected because they are conditions that are likely to be treatable in office or clinic settings; identifying high volume diagnoses for specific age and payer group cohorts and health service areas.

Rates of Use

Rates of use are calculated as the number of ED visits generated by a given population divided by the number of people included in the population. Rates are presented in terms of the number of ED visits for every 1000 persons. In order to calculate rates, it is necessary to have a count of the total people included in the population. We are not able to calculate rates for uninsured people in Maine because we do not have an exact count of the number of uninsured. Similarly, while we have total population counts by health service area (HSA), we do not have counts of individuals who fall into particular age groups or

coverage groups and thus can provide overall use rates for HSAs but not for specific age cohorts or sub-groups within HSAs.

Proportions of High Users and Admissions

Admission rates for specific ED users are calculated by adding total outpatient ED visits and visits that result in an admission for the population of interest to arrive at the total visit count, and then calculating the percent of total visits that resulted in an admission. The proportion of high users is calculated by developing a count of all individuals in the population of interest with four or more ED visits within a year and then calculating that number as a percent of total users within the population.

Potentially Preventable Visit Diagnoses

Fourteen diagnoses were selected that consist of conditions that likely are treatable in a non-hospital or office-based setting and thus may be preventable emergency department visits. The criteria for selection of the included conditions were: 1) matching diagnostic codes of conditions seen frequently both in hospital emergency departments and in primary care settings; 2) eliminating any diagnoses that, when seen in an emergency department, result in the patient being admitted more than 5 percent of the time; 3) a review of the list of diagnoses generated through this process by clinicians with emergency department experience and selection by the clinicians of a sub-set of conditions that, based on their clinical judgment, met the criterion of usually being an avoidable ED visit.

The clustering of these fourteen diagnoses into a single category is not intended to provide a comprehensive inventory of all potentially preventable visits but rather to create a uniform subset of frequently seen diagnoses that constitute a substantial portion of overall ED use and where the likelihood is that most of these visits could have occurred in an alternative care setting. The uniform category provides a basis for comparing ED utilization across different health service areas and population groups.

We calculated rates of use for the category of potentially preventable visits by counting total visits of the included diagnoses and dividing the number in the total population by the number of visits. We calculated the proportionate distribution of the selected potentially preventable visits by calculating the total number of potentially preventable visits as a percent of total visits.

High Volume Visits

Using 2006 hospital discharge data, total statewide emergency department visits were ranked in order of frequency and lists generated of the 30 diagnoses with the highest volume seen within each group and each insurance category. Some diagnoses were combined to create broader diagnostic categories. For example, all visits related to dental disease (Disorder of teeth and supporting structure, periapical abscess, apical periodontitis, and dental caries) were combined into a single diagnostic category of dental disease. “Headache” and “migraine” were combined, “abdominal pain, unspecified site” and “abdominal pain other specified site” were combined, and “lumbago” was combined with “lumbar strain and sprain.”

Focus Groups

Focus groups with MaineCare members were conducted in each of the study's six health service areas to gain an understanding of member attitudes about receiving care in emergency departments and the barriers that prevent them from getting care in other settings such as family practices and health centers. Focus group participants were recruited by telephone from lists of enrollees who had made at least two emergency department visits within the last twelve months. Five focus groups included adults who had used emergency departments for their own health care needs and/or those of their children. One focus group conducted in Bangor was made up of parents who had taken a child age 4 or under for treatment at an emergency department. In addition, a seventh focus group of MaineCare individuals with behavioral health diagnoses was held in the Portland. Volunteers for this focus group were recruited with the assistance of staff at the Amistad Peer Support and Recovery Center.

Seventy-two people were recruited to attend one of the 6 focus groups and 32 participated. Participants were provided with $50 grocery store gift certificates as tokens of appreciation for their time and insights. Initial recruitment was done at least a week prior to the scheduled time. Reminder phone calls were made to individuals the day before the scheduled event.

All participants were informed of the purpose of the study and signed informed consent statements agreeing to participate. Sessions were tape recorded and the tapes transcribed for analysis. The same semi-structured interview format and questions were used at each focus group. The interview protocol is included in Appendix 1.

The transcripts of the focus groups were analyzed to identify common themes and areas of difference. The content was analyzed to identify any patterns that were associated with high and low use health service areas and any patterns associated with urban and rural health service areas.

Provider Interviews

Research staff conducted interviews with thirty providers and hospital administrators in the six health services areas of the study. Interviews included, at a minimum, the Chief of the Emergency Department and the Nurse Director or Manager of the ED at each of the eight hospitals included in the study. In addition, community-based primary care providers were contacted in each health service area. An effort was made to include provider representatives of both federally qualified health centers and primary care practices owned by hospitals. Interviews were conducted by telephone and were one-on-one with the research interviewer. All participants were asked a uniform set of questions (interview protocol included in Appendix 1.).

In addition to the interviews with providers, research staff contacted the office staff of a sample of community-based practices in each of the study health service areas, including hospital-owned physician practices, private practices, and federally qualified health centers, to obtain information on practice hours, policies with regard to scheduling same day appointments or urgent visits, and after hours coverage.

The information from the interviews was summarized in matrices highlighting similarities and differences between high use and low use HSAs and examined for patterns associated with urban or rural location. A summary case study of each HSA was developed. Synthesized findings are presented in the report.

Population and Health Services Characteristics Data for Six Health Service Areas

Using U.S. Census, state Labor Department, and health department data, project staff collected demographic information for each of the study sites including: population density; age distribution; and percent of population in poverty; unemployment rates; and health insurance status. Population health characteristics included in the analysis were: overall age-adjusted mortality rates and mortality due to various diseases; leading causes of death; and the prevalence of various chronic diseases and behavioral risk factors.

Data on primary care provider to population ratios were provided by the Maine Quality Forum based on data tabulated by the Maine Medical Association from Maine's Bureau of Licensure. Where possible, information was collected on whether the providers treat MaineCare patients and whether or not their practice is open to new MaineCare patients. We also determined the number of federally qualified health centers and school-based health centers within each study area. Information on dentists was collected from the Maine Office of Data, Research and Vital Statistics and the Maine Dental Association.

Much of the data is available only for counties or the state as a whole. Several of the health service areas study sites are not contiguous with the state's county boundaries. They cross county boundaries and embrace only portions of some counties. In cases where health service areas encompass more than one county, statistics were collected for both counties that fall within a health service area.

Matrices of summary secondary data were developed allowing comparison of high use and low use HSAs and urban and rural HSAs. Full matrices, together with data source are included in Appendix 2. Summary findings are presented in the report.

III. FINDINGS FROM ANALYSES OF STATEWIDE EMERGENCY DEPARTMENT USE

Frequent Diagnoses Among Selected Age and Health Coverage Cohorts

Prior analysis of emergency department use in Maine has shown that Maine's overall rate of emergency department visits is about 30 percent above the national rate of use. In addition, emergency department use within selected age groups is high by national standards (Kilbreth, et al. 2009). In order to better understand some of the factors that contribute to unusually high use by particular age groups, the project research team reviewed the patient complaints that generate the highest volume of emergency department visits by specific age cohorts of privately insured, MaineCare insured, and uninsured patients. We further compared the high volume diagnoses of frequent emergency department (ED) users with individuals in the same age cohorts who made fewer visits. Frequent users were defined as individuals with four or more ED visits within a twelve month period. The age cohorts, selected by the ED Use Work Group, are infants below the age of one, young adults between the ages of 15 and 24, and adults between the ages of 25 and 44.

Table 1 compares the top eight diagnoses for each cohort of interest. (A rank order list of 30 highest volume diagnoses for each age and coverage cohort is included in Appendix 2.) Table 2 highlights differences in the most frequently seen diagnoses between Medicaid, privately insured, and uninsured populations within the same age cohorts.

Diagnostic Patterns among Infants

Among infants, the same four diagnoses – otitis media, upper respiratory infection, fever and unspecified viral infections – were responsible for generating the largest number of visits in all three insurance coverage categories. Although the MaineCare program covers about one in four children in the state, in 2006 MaineCare-covered children generated about three times as many visits for these four diagnoses as did privately insured children. All four of these illnesses can vary in severity from mild, non-threatening conditions to serious and even life-threatening illnesses. It is not possible to ascertain definitively whether the larger volume of visits among MaineCare-covered children arose from a higher incidence of serious illness in this population or a greater propensity to bring a baby in for evaluation and treatment for mild illness. However, in each insurance category, fewer than 2 percent of the infants' emergency department visits for these four diagnoses resulted in an admission, suggesting that many of the visits in all insurance cohorts were for less severe cases and that the higher volume in the MaineCare population arose from more visits for non-severe illness. In the MaineCare population, a substantially higher proportion of the visits in all the highest volume diagnoses were generated by high users. This difference between the MaineCare and the privately insured and uninsured suggests that some of the difference in rates of use within this age cohort can be attributable to a subset of the total MaineCare population who turned to the emergency department repeatedly for care or evaluation of their infants.

For the diagnoses ranked below the top four, numbers of visits dropped off fairly precipitously. A number of differences emerged among visits from privately insured infants in comparison to visits from

MaineCare infants and uninsured infants. Among the most frequently seen diagnoses for MaineCare and uninsured infants were "fussy infant" (7th most frequent reason for a visit among MaineCare babies), diaper rash (15th for MaineCare and 18th among the uninsured) teething syndrome (21st for MaineCare) and feeding problems in newborn (24th among uninsured babies) (Table 2). These diagnoses did not appear among the top 30 among privately insured infants. The disparity suggests that MaineCare and uninsured families utilize the emergency department for primary care at a higher rate than privately insured families, either because of financial or structural barriers to primary care in settings other than the emergency department or because of insufficient education in home care for infants and appropriate triggers for emergency visits.

Diagnostic Patterns among Individuals Aged 15 through 24

Among young adults, disparities in patterns of emergency department use by insurance status are immediately apparent. The top diagnostic reason for visits to the ED among both MaineCare enrollees and the uninsured in 2006 was dental disease. MaineCare enrollees in this age group made more than 3400 emergency department visits for complaints ranging from tooth decay to periapical abscess and apical periodontitis. Forty-five percent of visits for dental complaints by MaineCare participants were made by frequent ED users.[2] Among the uninsured, a third of dental visits were generated by frequent users. Although we do not know whether the repeat use among those who presented at the ED with dental disease was for dental care in each instance or for other medical problems, it is apparent that unmet dental care needs among ED users is associated with frequent visits. Also prevalent among MaineCare recipients and the uninsured and less so among the privately insured, were emergency department visits for mental health problems, specifically, depression and anxiety. Taken together, these two diagnoses constituted the fourth most frequent reason for an ED visit among MaineCare enrollees in this age group and the 6th most frequent among uninsured young adults. Among privately insured young adults, depressive disorders ranked as the 13th most frequently seen diagnosis while anxiety was not among the top 30 diagnoses. Among MaineCare enrollees, 43 percent of visits related to mental health diagnoses were generated by individuals making more than four visits in a year. Among uninsured young adults, 29 percent of mental health visits were generated by frequent users. High volume diagnoses shared by all young adults regardless of coverage status were acute pharyngitis, abdominal pain, and ankle sprains and strains.

Asthma is a frequently seen diagnosis among MaineCare and uninsured young adults (ranked 9th and 10th), but is not listed among the top 30 diagnoses for their privately insured counterparts (Table 2). Care for complications of pregnancy is the 9th most frequent diagnosis among MaineCare enrollees in this age group – a diagnosis that does not appear among the top 30 for the other cohorts of young adults. Visits for treatment of nondependent alcohol abuse were frequent among the privately insured and the uninsured (ranked 22nd and 23rd) but not among MaineCare enrollees of this age.

[2] Dental care is a covered benefit under MaineCare for children up through age 20. MaineCare adults do not have coverage for dental benefits, except tooth extraction.

Diagnostic Patterns among Adults Aged 25 through 44

Disparities in patterns of emergency department use similar to those among younger adults are seen in the cohort of adults aged 25 through 44. While chest pain was the top ranked diagnosis among privately insured adults, ED visits for dental disease far outranked all others among both MaineCare enrollees and the uninsured. As with the younger adults, about 4 in 10 dental visits among MaineCare enrollees and 3 in 10 among the uninsured were generated by frequent users. Among MaineCare recipients, close to 5000 visits were made for dental complaints in 2006. The next most frequent diagnosis treated in this cohort, lumbago and lumbar strain, generated a little over 2500 visits. Among uninsured adults, over 2400 visits related to dental pain and disease were made compared to about 950 for lumbago, the second ranked diagnosis. Visits for treatment of anxiety and depression were the fourth most frequent diagnostic category among both MaineCare and uninsured adults. Neither dental disease nor mental health problems were among the top 30 diagnoses for privately insured adults.

Except for the high prevalence of mental health and dental complaints among two of the three adult cohorts, the high volume diagnoses among all the adult groups were similar. All three groups included chest pain, acute pharyngitis, abdominal pain, bronchitis, and headache among the top eight reasons for ED visits. Uninsured adults were the only group where treatment for alcohol abuse was among the top 30 diagnoses.

Discussion

The review of high volume diagnoses among specific age and coverage groups suggest that Maine's unusually high ED use rates among young age cohorts are driven by a high volume of potentially preventable visits. Three situations are particularly noteworthy. The prevalence of dental emergencies suggests severe barriers to office-based dental care. Lack of insurance coverage for adults (including many with private health insurance) may impose substantial financial barriers for many Maine adults. In addition, workforce shortages may contribute to the problem. A high incidence of mental health visits among MaineCare and uninsured adults suggests undiagnosed or inadequately treated illness – or both. Finally, the frequency with which MaineCare-enrolled and uninsured infants are treated in emergency departments for conditions such as diaper rash, usually treated in a pediatrician's or family practice office, merits additional investigation. For uninsured families, financial barriers to office-based pediatric care may encourage ED use. For MaineCare recipients, barriers might arise from lack of established relationships with providers, from inability to get timely appointments, from transportation difficulties or lack of clarity on the part of parents on the appropriate use of emergency departments. These questions were explored with MaineCare enrollees and a discussion of these issues is presented in Section V of this report.

Table 1: Number of Visits and Percent of Visits Attributable to Frequent Users for Top Diagnoses in Rank Order for Specific Age and Payer Cohorts in Maine, 2006

Privately Insured			MaineCare			Uninsured		
Diagnosis	Number Visits	% Freq. User	Diagnosis	Number Visits	% Freq. User	Diagnosis	Number Visits	% Freq. User
Cohort Under Age 1								
1. Otitis media	366	18.6%	1. Upper respiratory infection	1,253	30.5%	1. Upper respiratory infection	85	9.4%
2. Upper resp. infection	302	14.6	2. Otitis media	1,126	34.5	2. Otitis media	54	20.4
3. Fever	251	10.8	3. Fever	557	25.0	3. Fever	32	9.4
4. Unspec. viral infect	120	10.8	4. Unspec. viral infection	428	40.9	4. Unspec. viral infection	23	21.7
5. Contus. Of face scalp & neck	88	12.5	5. Vomiting alone	264	31.4	5. Fussy infant	16	18.8
			6. Conjunctivitis	193	32.6	6. Vomiting alone	14	28.6
6. Vomiting alone	78	10.3	7. Fussy infant	192	31.8	7. Candidiasis of mouth	13	15.4
7. Acute bronchiolitis	68	11.8	8. Noninf. Gastroenteritis	178	32.6	8. Rash	13	15.4
8. Croup	67	7.4						
Cohort Ages 15 through 24								
1. Acute pharyngitis & strep throat	1914	11.5%	1. Dental disease	3430	44.8%	1. Dental disease	1149	33.4%
			2. Acute pharyngitis & strep throat	2291	25.5	2. Acute pharyngitis & Strep throat	751	14.2
2. Ankle sprain & strain	1116	5.6						
3. Abdominal pain	994	21.2	3. Abdominal pain	1669	44.4	3. Bronchitis	392	21.4
4. Urinary tract infection	859	10.9	4. Mental health problems	1243	42.9	4. Urinary tract infection	351	17.4
5. Neck sprain and strain	796	14.2	5. Upper respiratory infection	1173	37.1	5. Abdominal pain	350	14.6
6. Open finger wound	643	8.5	6. Urinary tract infection	1170	38.4	6. Mental health problems	347	29.1
7. Upper respiratory infection	586	16.2	7. Lumbago & lumbar strain	1098	43.7	7. Lumbago & lumbar strain	340	34.4
8. Otitis media	492	9.3	8. 1 sprain & strain	1011	28.0	8. Ankle strain and sprain	272	14.7
Cohort Ages 25 through 44								
1. Chest pain	2502	9.4%	1. Dental disease	4949	43.6%	1. Dental disease	2432	28.7%
2. Acute pharyngitis	2009	6.4	2.Headache & Migraine	2587	56.9	2. Lumbago & lumbar sprain	949	26.3
3. Abdominal pain	1877	9.5	3. Lumbago & lumbar sprain	2581	31.0	3. Acute bronchitis	727	21.2
4. Lumbago & lumbar sprain	1692	4.4	4. Abdominal pain	2096	45.8	4. Mental health problems	620	24.3
5. Bronchitis	1485	12.2	5. Mental health problems	1723	45.4	5. Abdominal pain	602	30.1
6. Headache	1241	48.3	6. Acute bronchitis	1710	35.2	6. Chest pain	587	18.2
7. Open finger wound	1218	N.A.	7. Chest pain	1607	31.4	7. Acute pharyngitis	518	14.9
8. Neck sprain and strain	1109	11.9	8. Acute pharyngitis	1204	28.4	8. Headache	398	30.4

Table 2: High Volume Diagnoses Unique to Payer Cohorts within Age Groups Based Top 30 Diagnoses in 2006

Privately Insured			**MaineCare**			**Uninsured**		
Diagnosis	Number Visits	% Freq. User	Diagnosis	Number Visits	% Freq. User	Diagnosis	Numb er Visits	% Freq. User
Rank			Rank			Rank		
			15. Diaper rash	105	39.0%	14. Fetal neonatal jaundice	9	11%
29. Febrile convulsion	16	N.A.	21. Teething synd.	68	29.4	18. Diaper rash	8	12.5
30. Dehydration	15	N.A.	24. Abdom. Pain, unspec	57	26.3	19. Abdominal pain, unspec	8	N.A.
			29. Contact dermatitis	50	36%	22. Constipation	7	N.A.
			30. Esophageal reflux	48	N.A.	24. Feeding prob in newborn	6	16.7
Rank			Rank			Rank		
17. Syncope & collapse	355	N.A.	9. Current maternal CCE	879	41.0%	9. asthma	271	36.5%
20. Infectious mononucleosis	271	N.A.	antepartum			22. Nondep alcohl abuse	163	N.A.
23. Nondep alcohl abuse	260	15.4%	10. asthma	821	44.5%			
Rank						Rank		
26. Dizziness & giddiness	462	N.A.				23. Non-dep alcohl abuse	255	30.6%
28. Cellulitis & Abscess leg	435	33.3%						
30. Palpitations	425	N.A.						

Potentially Preventable Emergency Department Visits

In this section, we present information for all Maine Health Service Areas (HSAs) on a uniform sub-set of emergency department visits. The selected diagnoses consist of conditions that likely were treatable in a non-hospital or office-based setting and thus may have been preventable. The criteria for selection of the included conditions were: 1) matching diagnostic codes of conditions seen frequently both in hospital emergency departments and in primary care settings; 2) eliminating any diagnoses that, when seen in an emergency department, result in the patient being admitted more than 5 percent of the time; 3) a review of the list of diagnoses generated through this process by clinicians with emergency department experience and selection by the clinicians of a sub-set of conditions that, based on their clinical judgment, met the criterion of usually being an avoidable ED visit.[3] The fourteen conditions included in the category of potentially avoidable visits are shown below.

Potentially avoidable ED visits

- Sore Throat
- Viral infection (unspecified)
- Anxiety (unspecified or generalized)
- Conjunctivitis (acute or unspecified)
- External and middle ear infection (acute or unspecified)
- Upper Respiratory infections (acute or unspecified)
- Bronchitis (acute or unspecified)
- Asthma
- Dermatitis and rash
- Joint pain
- Lower and unspecified back pain
- Muscle and soft tissue limb pain
- Fatigue
- Headache

Analysis of the selected cluster of diagnoses provides a window – albeit an imperfect one – for comparing utilization patterns by different populations and different health service areas. The diagnostic information that is available on hospital discharge records and insurance claims data is insufficient to determine whether a particular episode of care required emergency department treatment. Some conditions that are treatable in a physician's office during the day might appropriately require emergency department care if an exacerbation occurs in the middle of the night. Some conditions which, after assessment, are determined to need minimal treatment might have required diagnostic testing available in a hospital in order to eliminate the possibility of a more serious injury or illness. Thus visits grouped using the selected diagnosis codes may include some visits that were not avoidable. Conversely, many visits with diagnoses not included on our list may be avoidable. However, because the conditions included in the selected diagnostic cluster are high volume and are *usually* treatable in an office setting, in aggregate, they provide a measure of a portion of ED use that might be transferable to alternative care settings and they provide a uniform basis for comparing differences in ED use by health service area and by different population groups.

[3] This methodology was developed by Onpoint Health Data in collaboration with New Hampshire's Office of Medical Assistance. The conditions selected for analysis in New Hampshire were used for the Maine analysis with one exception. New Hampshire's avoidable visit condition list included abdominal pain. This condition was eliminated from the Maine list of potentially avoidable visits.

Use Rates for Potentially Avoidable Visits by Hospital Service Area

Table 3 shows the age-standardized rate of visits per 1000 population for the selected group of potentially avoidable ED visits for each health service area in the state as well as the rate of use for all ED visits. The population rates of use for this cluster of visits vary more than three-fold from the highest use HSA to the lowest. This is a higher rate of geographic variability than is seen for ED use inclusive of all visits – where the highest use rate is about 2.5 times the lowest – suggesting there is more variability in rates of potentially preventable visits than in visits for true emergency care. The selected cluster of potentially preventable visits also varies substantially as a proportion of overall ED use in different health service areas. Table 3 shows that in Caribou, which has the highest overall ED visit rate, the selected cluster of potentially preventable visits makes up more than 25 percent of total outpatient ED volume. By contrast, in two general service hospitals with among the lowest overall ED use rates, Bar Harbor and Midcoast, the cluster of potentially preventable visits constitute 16 percent and 18 percent, respectively, of overall use.[4]

The strong correlation between health service areas with high overall ED use rates and those with a high proportion of potentially preventable visits suggests that strategies undertaken to provide alternative care settings for potentially preventable visits could successfully bring ED use rates in high use areas closer to the norm in Maine.

Figure 1 shows that, while the highest use rate for the cluster of potentially preventable ED visits tend to be in rural areas, this relationship is not uniform. Caribou, for example, has the highest use rate for the selected diagnoses in Maine, while neighboring Fort Kent is below the state average.

[4] HSAs with low ED use community hospitals were selected for this comparison rather than Portland or Bangor (both of which have very low population ED use rates) because Portland and Bangor house tertiary care hospitals and are major trauma centers and, thus, have a different mix of ED visits that is likely to differ from other hospitals in the state.

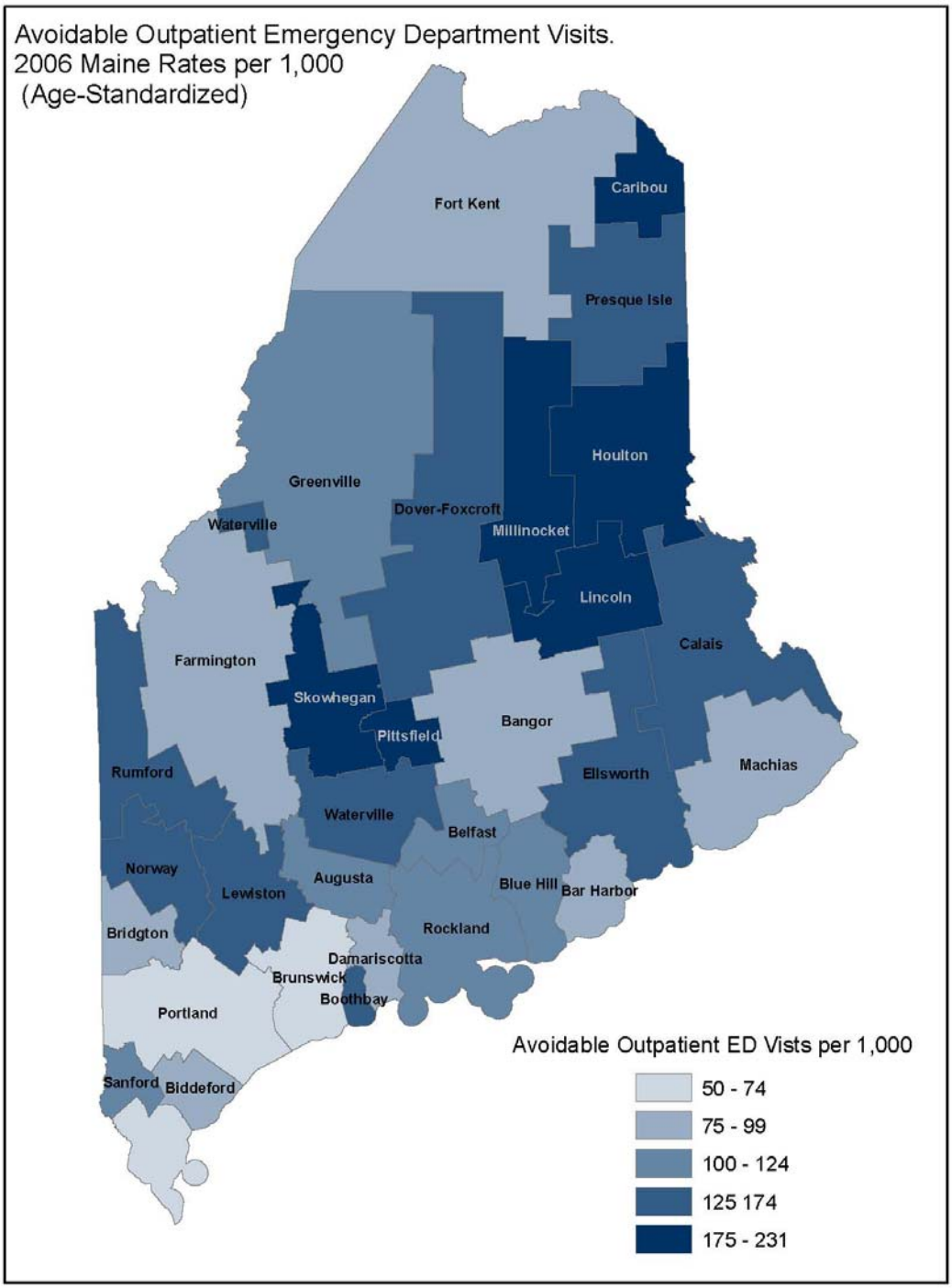
Table 3: 2006 Maine Emergency Department Use by Health Service Area: Age-Standardized ED Use Rates, All ED Visits and Selected Potentially Preventable Diagnoses[5]

Hospital Service Area	Population Estimate	Total ED Visits Age standardized rate per 1000	Selected PPD Visits Age Standardized rate per 1000	PPD Visits as a percent of Total Visits
Caribou	17,057	905	230	25.4%
Millinocket	7,962	786	190	24.2
Lincoln	13,108	728	188	25.8
Pittsfield	15,386	719	183	25.4
Houlton	18,874	721	179	24.8
Skowhegan	28,965	762	175	23.0
Calais	12,867	765	174	22.7
Waterville	72,460	639	159	24.9
Rumford	15,816	650	148	22.8
Presque Isle	24,828	609	139	22.8
Dover-Foxcroft	19,775	621	139	22.4
Ellsworth	25,386	579	134	23.1
Norway	24,861	581	129	22.2
Lewiston	121,611	571	128	22.4
Boothbay	6,281	620	127	20.5
Belfast	22,493	585	123	21.0
Greenville	2,468	609	120	19.7
Rockland	49,355	483	109	22.6
Augusta	61,435	487	103	21.1
Sanford	35,224	499	101	20.2
Blue Hill	11,110	490	100	20.4
Machias	16,260	508	95	18.7
Damariscotta	12,082	490	93	19.0
Bridgton	18,530	458	90	19.7
Farmington	33,874	408	90	22.0
Fort Kent	14,710	423	86	20.3
Biddeford	74,963	423	82	19.4
Bangor	131,548	409	81	19.8
Bar Harbor	11,402	471	76	16.1
Brunswick	74,200	367	68	18.5
Portland	265,702	359	68	18.9
York[6]	61,012	272	54	19.9

[5] Highlighted HSAs on those included in comparative analysis. See page 21.

[6] York area may be low due to border crossing. Data source only includes Maine hospital data.

Figure 1. Avoidable Outpatient Emergency Department Visits



IV. COMPARISON OF SIX MAINE HEALTH SERVICE AREAS

This section of the report presents a comparative analysis of six health service areas in Maine, three selected because they have emergency department use rates above the state average and three selected because their ED use rates are below the state average. Bangor and Lewiston are compared as urban areas with contrasting use rates (Bangor, low and Lewiston, high). Two low use rural areas, Damariscotta and Farmington, and two high use rural areas, Calais and Caribou form the remaining study sites.

Project staff undertook a multi-method research approach to collect information that might uncover patterns associated with either high or low ED use rate and allow deductions as to factors that contribute to ED use. The research project included: collection and analysis of secondary data on population demographics and health status and health service area characteristics; analysis of age and payer defined subsets of ED users within the selected HSAs; analysis of the most frequently seen ED diagnoses in each HSA; interviews with emergency department administrators and ED and community-based clinicians in each selected site; and focus groups with MaineCare enrollees at each site who have received emergency department care within the past year.[7]

ED Use Rates by Age in High and Low Use Health Service Areas

Tables 3 and 4 show the population emergency department use rates in total and across different age cohorts for the six health service area study sites in 2006. Lewiston, in comparison to Bangor experienced about 150 more ED visits per 1000 residents (Table 3). However, the rates of visits resulting in an admission in these two urban areas were the same. The proportion of the population making frequent ED visits (more than four in a year) in Lewiston was more than double the proportion in Bangor. Taken together, these statistics suggest that the higher rate of ED visits in Lewiston, compared to Bangor arises from a combination of a larger number of visits with less urgency and multiple visits from a small proportion of the population. The rate of use in Lewiston is higher in every age group, but the disparity is particularly striking among infants, where the rate of use in Lewiston is 17.5 visits per 1000 infants compared to 2.8 visits in Bangor.

[7] A sixth data collection effort, an on-site survey of ED users at each hospital in the selected sites, had to be postponed due to the risk posed to interviewers by the high prevalence of H1N1 virus in the emergency departments in the winter months. This data collection effort will be completed in the spring and the findings released as an addendum to this report.

Table 3: Comparison of Emergency Department Use Rates by Selected Age Groups, Bangor and Lewiston

Age Group	Rate of ED visits per 1000	Rate of ED visits resulting in admission per 1000	Number of Frequent Outpatient ED Users	Frequent Users as a Percent of total Population Age Group Cohort
Bangor Total	420	59	1903	1.4%
Lewiston Total	578	59	4051	3.3%
Bangor <1	593	36	41	2.8
Lewiston <1	1105	49	263	17.5
Bangor 1-4	473	13	74	1.4
Lewiston 1-4	798	13	508	9.1
Bangor 15-24	508	13	499	2.2
Lewiston 15-24	859	28	1642	9.7
Bangor 25-44	507	27	788	2.2
Lewiston 25-44	660	39	2005	6.0
Bangor 45-64	327	64	426	1.2
Lewiston 45-64	394	59	1088	3.3

The overall ED visit rates of the two rural, high use areas were about double the rates of the two low use areas in 2006 (Table 4). Calais, one of the high use areas, had a substantially lower rate of visits resulting in a hospital admission than the other study areas, but Caribou, the second high use area, had a higher rate of admission. The proportion of the population who make frequent ED visits is substantially higher in the two high use areas than in the two low use areas.

Calais had a particularly high rate of use among infants under age one in comparison to all the other study areas. Twenty-seven percent, or more than one in four infants in the area visited the emergency department more than four times over the course of a year. Caribou and Calais, the two high use areas, had higher rates of use in each age cohort and higher proportions of frequent users.

Over all ages, Calais had a low percent of admissions arising from ED visits compared to the other study areas.

Table 4: Comparison of Emergency Department Use Rates by Selected Age Groups, Calais, Caribou, Damariscotta and Farmington

Age Group		Rate of ED visits per 1000	Rate of ED visits resulting in admission per 1000	Number of Frequent Outpatient ED Users	Frequent Users as a Percent of total Population Age Group Cohort
Calais, Total		759	20	494	3.8%
Caribou, Total		894	76	928	5.4
Damariscotta, Total		476	65	223	1.8
Farmington, Total		412	54	566	1.7
Calais	<1	2263	51	37	27%
Caribou	<1	1785	21	30	20.8
Damariscotta	<1	1188	0	4	5.8
Farmington	<1	1010	60	24	8.0
Calais	1-4	1282	16	63	11.3
Caribou	1-4	1285	3	68	11.0
Damariscotta	1-4	627	14	10	2.8
Farmington	1-4	581	21	31	2.5
Calais	15-24	833	10	61	3.7
Caribou	15-24	1131	16	213	9.1
Damariscotta	15-24	565	10	40	3.0
Farmington	15-24	491	19	184	3.1
Calais	25-44	746	17	141	4.5
Caribou	25-44	995	31	286	7.1
Damariscotta	25-44	553	26	60	2.4
Farmington	25-44	464	35	194	2.3
Calais	45-64	574	25	101	2.7
Caribou	45-64	689	69	214	4.1
Damariscotta	45-64	332	34	49	1.2
Farmington	45-64	282	45	88	0.9

Visit Rates for Potentially Preventable Diagnoses by Health Service Area

Fourteen diagnoses frequently seen in both emergency departments and in primary care settings were selected for a comparative analysis of the six study areas (see discussion of selection process, page 5). In aggregate, the rate of visits for this cluster of diagnoses ranged from 223 per 1000 in Caribou to 83.5 per 1000 in Bangor in 2006 (Table 5). Of the individual diagnoses, the greatest disparity was for upper respiratory infections where the rate of visits in Caribou was more than 56 per 1000 compared to about 17 per 1000 in Bangor and Damariscotta. Calais had an unusually high rate of diagnoses for viral infections – 20 per 1000 compared to under 10 in the other five HSAs. It is possible that some of the disparity is due to differences in coding practices from hospital to hospital. However, the high use health service areas had consistently higher rates of visits within each diagnosis as well as in aggregate.

The number of persons within each health service area that had at least one ED visit for one of these potentially preventable conditions was proportionately larger in the higher use health service areas, ranging from 16 percent of the population in Caribou to about 7 percent in Bangor and Damariscotta.

For purposes of comparison, Table 6 shows the population rate of visit in 2006 for two frequently seen conditions likely to merit immediate medical attention and resources available in an emergency department – chest pain and an open wound of the finger. Given the non-discretionary need for immediate medical care and – in the case of a finger wound – the unpredictability of injury, one would hypothesize that the rate of visits for these conditions across different geographic areas would vary less than for conditions where care can possibly be delayed or provided in a non-hospital setting. Indeed, the visit rates per 1000 in 2006 for these two conditions showed less extreme variability than the diagnoses reported in Table 5. However, the same underlying pattern is evident even with these diagnoses. Bangor and Lewiston, which vary from each other substantially on potentially preventable diagnosis visits, have rates that are less disparate in Table 6 although Lewiston rates are still higher. The highest population visit rates for these non-discretionary visits were in Caribou and Calais. Some of the disparity for visits related to chest pain may be attributable to the higher prevalence of risk factors for heart disease seen in these health service areas (see discussion, p. 11). Higher use rates may also be associated with less successful disease management of individuals with chronic illnesses in high use areas.

Table 5: ED Visit Rates and Percent of Population Making a Visit for Selected Potentially Preventable Diagnosis (PPD) Visits

	Bangor		Lewiston		Calais		Caribou		Damariscotta		Farmington	
	Rate per 1000	% with visit	Rate per 1000	% with visit	Rate per 1000	% with visit	Rate per 1000	% with visit	Rate per 1000	% with visit	Rate per 1000	% with visit
Total PPD Visits	83.5	7.0%	131.0	9.9%	172.2	13.1%	223.4	16.0%	84.8	7.2%	89.9	7.5%
U.R.I.	17.6	1.6%	28.6	2.6%	29.0	2.6%	56.3	4.9%	16.9	1.6%	20.0	1.9%
Ear Infections	10.0	0.9%	18.4	1.6%	25.5	2.2%	35.4	2.9%	11.8	1.1%	10.3	0.9%
Bronchitis	9.6	0.9%	16.5	1.5%	24.2	2.2%	38.0	3.3%	13.2	1.2%	7.3	0.7%
Unspecified lower back pain	9.3	0.8%	10.9	0.9%	14.1	1.2%	19.5	1.4%	7.2	0.6%	9.4	0.9%
Asthma	5.0	0.4%	8.5	0.7%	17.6	1.4%	13.1	1.1%	5.1	0.4%	4.2	0.3%
Joint pain	6.5	0.6%	7.5	0.7%	7.8	0.7%	10.9	1.0%	4.2	0.4%	8.2	0.8%
Viral Infection	3.5	0.3%	7.7	0.7%	20.1	1.8%	8.1	0.8%	2.6	0.2%	6.1	0.6%
Muscle/soft tissue pain	4.1	0.4%	7.7	0.5%	6.1	0.6%	9.0	0.8%	3.3	0.3%	4.7	0.5%

Table 6: ED Visit Rates for Frequently Seen Diagnoses Usually Requiring Emergency Care

	Bangor	Lewiston	Calais	Caribou	Damariscotta	Farmington
	Rate per 1000	Rate per 1000	Rate per 1000	Rate per 1000	Rate per 1000	Rate per 1000
Chest Pain	16.8	18.0	20.0	33.0	19.1	16.0
Open wound of finger	5.5	8.5	9.6	9.9	8.5	5.6

Population Profiles and Provider Availability in Six Health Service Areas

Using U.S. Census, state Labor Department, and health department data, project staff collected demographic information for each of the study sites including: population density; age distribution; percent of population in poverty; unemployment rates; and health insurance status. Population health characteristics included in the analysis were: overall age-adjusted mortality rates and mortality due to various diseases; leading causes of death; and the prevalence of various chronic diseases and behavioral risk factors.

To measure the availability of primary care in the selected sites, we obtained data on the number of primary care physicians and dentists (measured as number of doctors per 100,000 population) and, where possible, collected information on whether the providers treat MaineCare patients and whether or not their practice is open to new MaineCare patients. We also determined the number of federally qualified health centers and school-based health centers within each study area.

Much of the data is available only for counties or the state as a whole. Several of the health service areas study sites are not contiguous with the state's county boundaries. They cross county boundaries and embrace only portions of some counties. In cases where health service areas encompass more than one county, statistics were collected for both counties that fall within a health service area.

Site Characteristics Associated with High or Low Emergency Department Use

Matrices of all the data collected, organized by health service area, along with information on data sources is included in the report appendices. Here, we report only on patterns that emerged that might bear a relationship to emergency department use.

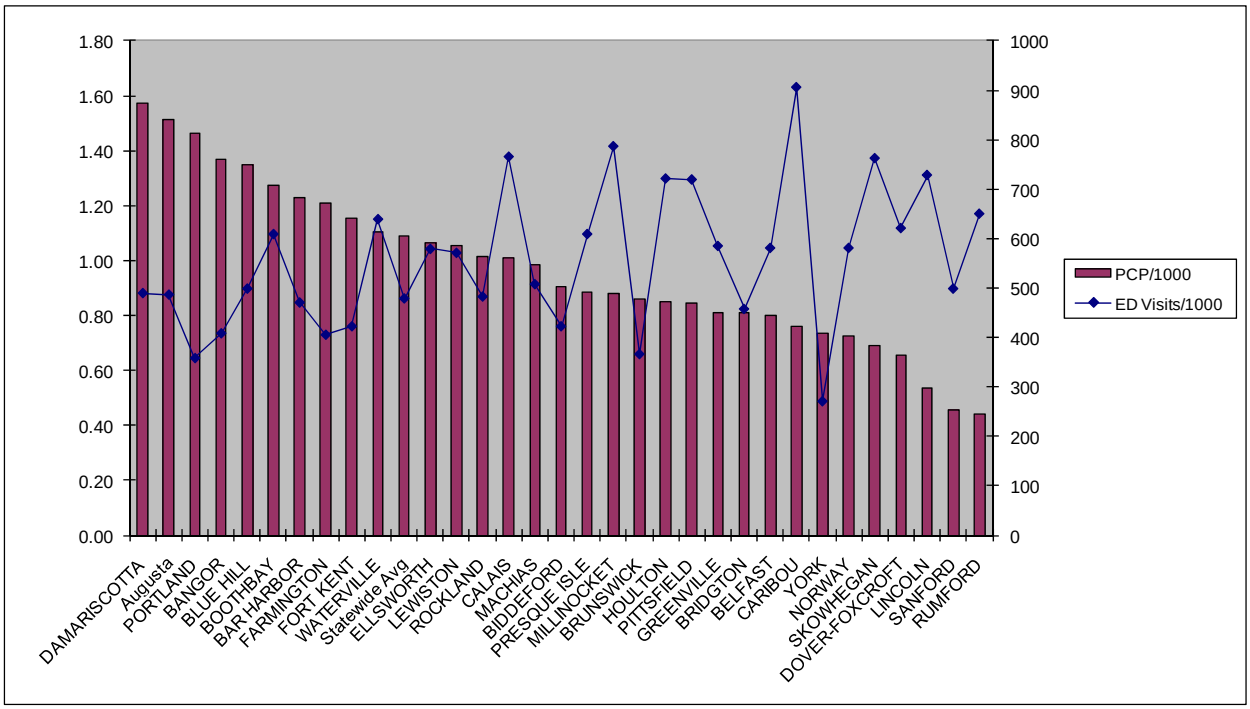
Of all the measures we examined, only one aligns with ED use rates in the six health service areas of our study – primary care physicians per population. Overall, across the state, the PCP to population ratio is 109 physicians per 100,000 population. In the three health service areas selected for study with high ED use rates, the PCP to population ratios were 76 and 101 per 100,000, respectively in the two rural health service areas, and 105 per 100,000 in the urban high ED use health service area. By comparison, the ratios in the three low use HSAs (while still below the state average) were 121,137 and 157 (Table 7).

Table 7: Primary Care Physicians per 100,000[8]

			Above Average ED Use			Below Average ED Use		
	National	State	Caribou	Calais	Lewiston	Bangor	Farmington	Damariscotta
PCP per 100,000	124	109	76	101	105	137	121	157

The inverse relationship between numbers of primary care physicians and emergency department use holds up across the state (Figure 2). While the relationship is not exact, statistical correlation analysis shows that the general association of high ED use rates with lower primary care doctor availability and vice versa, is sufficiently strong in Maine that it is unlikely to be due to chance.[9]

Figure 2. ED Visit Rates in Relation to PCP to Population Ratios



The relationship of numbers of providers to ED use remains, nevertheless, a puzzle. Almost all providers interviewed across the six HSAs of the study commented that, over the past 10 to 15 years, their area had seen declining population, an increase in the number of providers and, yet, a near doubling of the

[8] Data sources: National: 2006 Maine State Health Plan (2008/2009); County: 2005 State and Maine Quality Forum
[9] Analysis conducted by Jim Leonard of the Maine Quality Forum.

rate of emergency department visits. Given patterns over time, differences in ED use rates cannot be attributed solely to physician-to-population ratios.

Providers and administrators familiar with the patterns of ED use in their areas uniformly point to inadequate access to dental care as a major contributor to preventable ED use (see discussion, Section III). Our data collection did not discern an association between ratios of dental providers and high and low ED use rates. However, our data affirms that there are shortages of dental providers, generally, and for MaineCare participants, in particular. In the six health service areas under study, the number of general practice dentists with active practices per 100,000 population ranged from about 25 to 37. The number of active general practice dentists who treat MaineCare patients ranges from 7 to 24 per 100,000; and the number of dentists that are still accepting new MaineCare patients ranges from under 2 per 100,000 (in Androscoggin County) to 11 per 100,000 (in Aroostook County) (based on 2006 data from the Maine Office of Vital Statistics) (Table 8).

Table 8: Active General Practice Dentists per 100,000[10]

		Above Average ED Use			**Below Average ED Use**		
	State	Caribou	Calais	Lewiston	Bangor	Farmington	Damariscotta
Active (GP) dentists per 100,000	35.29	24.96	30.51	32.70	36.76	24.58	34.48
GP dentists that treat MaineCare per100,000	15.67	20.80	24.41	6.54	19.87	9.83	11.49
GP dentists that accept new MaineCare per100,000	6.08	11.09	18.30	1.87	10.43	3.69	2.87

There were no major differences between HSAs in terms of prevalence of depression or substance abuse according to the Maine CDC Health Indicator Report, 2004 – 2006 (Appendix 2). However, mental health resources are unevenly concentrated. From a review of Maine's Office of Mental Health Services resource guide by town, it is apparent that there are more mental health agencies in urban settings (Bangor and Lewiston have 18 and 21 agencies respectively) than in rural areas (range from 3 to 10

[10] Data source: data as of 1/1/06 – Maine Office of Data, Research, and Vital Statistics

agencies).[11] While crisis services, such as the crisis hotline, are available statewide 24 hours a day, Bangor has the highest number of agencies providing crisis services; some areas such as Calais and Damariscotta do not have any agencies providing these services.

There is a higher rate of emergency department visits and admissions for mental health diagnoses in the HSAs with more resources than in those with fewer (Table 9). It is possible that individuals with serious mental illness migrate to the parts of the state where more services are available. It is also possible that emergency department providers in the urban, more highly resourced HSAs are more likely to diagnose a complaint as having a mental health component of anxiety or depression than ED providers in rural areas with fewer mental health providers.

Table 9: Population Visit Rates for Depressive and Anxiety Disorders by HSA, 2006

	Above Average ED Use			**Below Average ED Use**		
	Calais	Caribou	Lewiston	Bangor	Farmington	Damariscotta
ED Visit Rate per 1000	Not among top 30 diagnoses	Not among top 30 diagnoses	6.57	5.85	1.44	1.00

Health Service Area Differences not Associated with High or Low Use

While the primary care physician to population ratio was the only factor we examined that aligned with high and low ED use rates, other differences among the HSAs may be indicative of differential burdens placed on providers in different parts of the state. Three of the six sites for our study have poverty rates substantially above the state average. In 2005, Caribou (high use) and Farmington (low use) both had about 17 percent of adults living in poverty, and Calais (high use), about 19 percent in poverty, compared to a state rate of 12 percent (based on 2005 county level census data) (Table 7). By contrast, Damariscotta (low use) had a poverty rate of 11 percent – a little below the state average. Both Lewiston (high use) and Bangor (low use) were at the state average of 12 percent. The relative wealth of Damariscotta (and greater availability of providers) may explain its advantage on population health measures compared to the other study sites. Damariscotta's age-adjusted mortality rate from all causes is 764.8, well below the national average of 898.6 and well below all the other study HSAs which ranged from 966.8 (Calais) to 831.5 (Farmington). Damariscotta was also below the national and state averages and the other five study sites on many specific causes of death included in the analysis.

[11] If an agency was located in more than one town in the HSA, the agency was counted more than once.

The rural sites other than Damariscotta each have elevated disease rates and/or high risk behaviors, but the results are not consistent. Calais has rates of smoking, obesity, and high blood pressure higher than the other sites. Caribou has elevated rates of asthma and diabetes. Calais has a high rate of death from motor vehicle accidents, as does Somerset County (a part of the Farmington HSA).

Lewiston fares slightly worse than Bangor on most health risk factors but outcomes as measured by age-adjusted mortality rates present a mixed picture. Death from coronary artery disease is substantially higher in the Bangor HSA than in Lewiston (179.1 and 164.4 in Hancock and Penobscot counties, respectively, compared to 150.6 in Androscoggin County). (See Appendix 2 for presentation of health risk factors and death rates).

All of the study HSAs with the exception of Damariscotta have MaineCare enrollment rates above the state average including two of the low use areas, Bangor (with a 26 percent enrollment rate) and Farmington (with a 29 percent enrollment rate).[12] Five of the six HSAs have a higher proportion of uninsured persons than the state average with the exception being Lewiston (Androscoggin County), where the uninsured rate of 7 percent is below the state average. (Appendix 2).

These mixed findings generally suggest that population health measures, coverage rates and poverty do not explain differences in ED use by health service area. Damariscotta, a low ED use area with higher than average income and health care resources, stands in contrast to Farmington, another low use area with substantial poverty and fewer providers. Differences in population characteristics between Bangor and Lewiston do not seem sufficient to explain why Bangor has a substantially lower ED use rate than Lewiston.

Table 10: Health Service Area Differences Not Associated with High or Low Use

			Above Average ED Use Rate			Below Average ED Use Rate		
	National	State	Caribou	Calais	Lewiston	Bangor	Farmington	Damariscotta
Poverty rate adult[13]	11.9%	12.3%	16.6%	19.1%	12.0%	Hancock (H)-10.4% Penobscot (P)-12.8%	Franklin (F)-16.9% Somerset (S)-16.9%	11.0%

[12] Private coverage rates (shown in the table in Appendix 2) are calculated from counts of persons with private insurance in the Maine Health Data Organization database. No other data source provides coverage information at the county level. Because some national companies in Maine are not obligated to report to the MHDO, these counts underestimate the actual population with private coverage, so, although the data estimates are included, they are not discussed in the report.

[13] Data sources: National: 2006 Census, Maine Department of Labor (ages 18-64); State and County: 2005 Margaret Chase Smith Policy Center UMaine Poverty in Maine, 2008.

			Above Average ED Use Rate			Below Average ED Use Rate		
	National	State	Caribou	Calais	Lewiston	Bangor	Farmington	Damariscotta
Causes of Death per 100,000 – age-adjusted[14]								
All causes of death[15]	898.6	N/A	889.3	966.8	859.1	H-851.1 P-892.5	F-831.5 S-910.1 (874.9-945.4)	764.8
Health Statistics								
Smokers	20.1	21% (+/- 1.6)	24.3%	27.5%	24.7%	H-22.5% P-24.5%	F-20.1% S-26.5%	17.2%
Obesity	34%	25.2%	15.4%	25.0%	24.6%	H-17.7% P-22.6%	F-22% S-23.2%	16.8%
High Blood Pressure	32%	25.4% (+/-1.6)	24.6%	32.4%	25.1%	H-15.1% P-23.5%	F-24.6% S-29.8%	27.7%
Diabetes	10%	7.3 (+/- 0.6)	10.0%	6.6%	6.7%	H-5.8% P-8.5%	F-9.3% S-9.8%	4.3%
Asthma	8.5%	9.6% (+/-1.2)	13.3% (includes Caribou - VanBuren)	8.5%	9.3%	10.7%	9.4%	10.4%

[14] See Appendix for data sources.
[15] Data source: 1999-2003 CDC National Center for Health Statistics – Community Health Status Report

V. MAINECARE ENROLLEE FOCUS GROUP REPORT

Introduction

Per capita use rates of hospital emergency departments are higher among enrollees in the MaineCare program than among privately insured Maine residents in both high and low use health service areas. Focus groups with MaineCare members were conducted in each of the study's six health service areas to gain an understanding of member attitudes about receiving care in emergency departments and the barriers that prevent them from getting care in other settings such as family practices and health centers. Focus group participants were recruited by telephone from lists of enrollees who had made at least two emergency department visits within the last twelve months. Five focus groups included adults who had used emergency departments for their own health care needs and (in some cases, for their children, as well). One focus group conducted in Bangor was made up of parents who had taken a child age 4 or under for treatment at an emergency department. In addition, a seventh focus group of MaineCare individuals with behavioral health diagnoses was held in the Portland. Volunteers for this focus group were recruited with the assistance of staff at the Amistad Peer Support and Recovery Center.

In October, November and December 2009, six focus groups with a total of 32 participants were conducted in Caribou, Damariscotta, Lewiston, Farmington, Calais, and Bangor. Of the 32 participants, the median age for adults was 32 and the median age for the children of participants was 8. Twenty-eight of the focus groups' participants were female. When asked to rate their health status, 8 participants reported that they were "healthy", 21 "somewhat healthy" and 3 "not healthy." Twelve people (8 women and 4 men) attended the focus group for individuals with behavioral health diagnoses in Portland. Findings for this group are reported in a separate section.

Researchers anticipated that there would be a larger study population. Seventy-two people were recruited who initially indicated that they would attend one of the 6 focus groups. However, only 32 participated, despite reminder phone calls and offers of $50 gift certificates for attendees. In order to understand this poor attendance, recruiters made follow-up phone calls to some non-participants to ask why they didn't attend. Reasons cited included illness, and a more vague answer of "something came up." In one instance, a person said that she was not able to find the site because its name was not familiar. Research staff had booked a room from an individual who referred to the site as the "municipal building" when people more commonly refer to it as the police and fire station. Another possible reason, hinted at by one participant's comment that she was worried about "being set up," was that people were fearful of repercussions that might affect their MaineCare benefits – despite the fact that they were assured of anonymity and that the purpose of the study was to improve health services. Even after questioning a number of non-attendees, researchers still don't fully understand the reasons for this poor attendance.

Limitations of the study

Focus groups provide individual contextual information, not statistically reliable data that can be generalized to a larger population. The poor attendance at these focus groups is another reason to be cautious in drawing conclusions. Those who attended may be different from those who were "no shows" in ways researchers cannot discern.

Questions

Project researchers asked focus group participants a series of questions intended to help elucidate the factors that led to ED use, and, alternatively, the factors that influenced the decisions people made to seek out medical care in other locations. Care was taken to ask questions in a manner that did not suggest that some ED use is either appropriate or inappropriate. Similarly, questions about use of community-based health care services were phrased so as not to suggest any causal link between community resources and ED use. Rather, focus group participants were asked to describe the reasons for their ED visits in their own terms and, as a separate discussion item, to describe their usual sources of care in the community.

As a final question, participants were asked: "For you, what is the most important change Maine could make so you can get the care you need? "

Findings

Some patterns of ED use suggested by participants were common to all focus groups, while others were unique to the particular service area. Responses to focus group questions can be grouped into 3 general categories of reasons why participants chose emergency departments: availability and access; convenience; and quality of patient/physician interaction.

Availability and Access

The availability of and access to health care in settings other than EDs reportedly influenced the choices some people made about where and when to go for treatment, whenever they or their children were sick. The patterns of participant responses to questions about access and availability can be grouped as: wait times; finding doctors and dentists; and on-call coverage.

Wait Times Focus group participants in Lewiston, Farmington, Bangor, Caribou and Calais reported that they were more likely to seek ED treatment for illness or pain when they could not be treated by their primary care provider, community health center or walk-in clinic within a reasonable period of time. Reportedly long wait times for PCP visits by adults were most common in the northern rural regions and in Lewiston, all high ED use areas. Study group participants from Caribou and Calais said that, on average, they waited, or would have had to wait, 3-5 months before being seen by their doctors. In Lewiston, waits ranging from 3 to 7 months to see a PCP for adult care were reported by almost half of the participants. One individual in Caribou estimated that he would have had to wait 4 months to see his doctor for treatment of back pain. He said "It's just ridiculous. I hurt my back and I didn't even

bother calling the doctor. There's no point calling your physician because you call in August and you can't be seen until December." In another instance concerning access to preventive care, a woman who recently moved to Caribou said that she called in August for an appointment to get birth control and was given an appointment for December.

In contrast, the focus group participant in Damariscotta, a low ED use area, said that generally speaking she could see her physician within two days, eliminating the need to go to the ED for reasons that could be avoided. "I believe my family practice has always done an excellent job at doing sort of a modified triage over the phone." In response to a question about the availability of same-day service, this participant reported that 6 to 8 months ago her physician practice, comprised of 4 doctors, adopted a new open-access policy. The practice reserves appointments for last minute patients. Patients can call in the morning for appointments with one of the practice's physicians that day.

Finding Doctors Finding doctors with open practices who would accept MaineCare patients was reportedly difficult for a number of participants, suggesting to them that the only option for urgent care was the ED. Reasons cited for needing to find a new physician, dentist or psychiatrist included: a move to a new community; decision to leave the provider for personal reasons; the "three strikes and you're out rule;"[16] frequent provider turnover; and, in one case, death of a physician. A participant in Lewiston reported that she had to make as many as 12 calls before finding a PCP with an open practice who would accept her daughter as a patient. Waits of 5 months to see a new PCP were commonly reported.

Access to dentists Lack of access to practicing dentists, to dentists who accept MaineCare, and to adult dental coverage other than for extractions, was also cited as the reason for going to EDs for treatment of dental pain. In most focus groups, participants complained of not having dentists and adequate dental services available to them as adults. Lack of dental care was of such importance that participants frequently commented about it in focus group discussions and also cited it when asked to recommend improvements in their community healthcare systems.

Several participants commented that while MaineCare provides better dental coverage for children than for adults, access or timely access can be problematic. One mother in Caribou said that it usually took 4 to 6 months to get her children in for dental treatment. Another mother commented, "My three-year-old son cracked a tooth off the gum line and got an infection and kept getting one and they still wouldn't get him in. This was back in July and they got him in, in September." A woman in Farmington remarked, "You can't get in there [community dental clinic serving children]. They just say, if they are in pain, bring them to the emergency room. You bring them there and they are like, here's some pain medicine, go see a dentist."

[16] "Three strikes and out" is a policy adopted by some practices around the state that reserves for the practice or individual provider, the right to remove a patient from the practice for three or more violations. Violations include non-compliance with self-management contracts, particularly with regard to substance abuse, and no-shows for appointments.

On-Call Coverage While access to PCPs for advice after hours and on weekends was reported to be helpful to some participants, most reported that they still ended up in EDs. For example, many participants, after consulting with on-call doctors, reported that they were referred directly to the ED, particularly if the on-call doctor didn't know them. Commenting from Damariscotta, the participant said, "[The] on-call system now includes a few doctors that are in practices of their own and they share on call. I will say, I believe many times, if it is not one of my doctors from my own practice, I wind up being sent to the emergency room."

In some cases, on-call doctors gave medical advice, but also suggested that the patient go to the ED if "you think you should" or if the symptoms persist. In one case, a participant from Caribou reported that the response to her calling after hours was a recorded message to go directly to the ED. Whatever the details of the on-call process, in a majority of cases, participants reported that they ended up in EDs rather than at some other "next day" treatment setting such as a family practice or community healthcare center. A comment from a woman in Lewiston serves as a summary statement: "Usually on-call is pretty useless for me. They are not going to go to the hospital to meet you."

Convenience

Convenience, timeliness, and guaranteed treatment were cited by participants as reasons for using EDs for non-emergent care. Participants' comments included: open access 24/7; the convenience of having diagnostic equipment and treatment available in one location; the surety of getting treatment; and avoiding long waits to see PCPs just to ask for referrals to specialists. One woman in Caribou stated, "The one thing that they do makes it more appealing to go to the ED. You go to your physician, they say we have to do this test and this test, but you have to go to the hospital to get them done at the lab. Whereas if you go to the ER, you get it all done in one shot." A participant in Lewiston explained that she would usually just go to the ED because getting in to see her doctor was so hard. "I call and I have to wait for hours for them to call me back. It's just easier sometimes to go to the ED. It's the only place that won't turn you away. When you need an answer, you got to get an answer." Another participant discussed the dilemma she and other working parents face. She said that a lot of employers in Lewiston don't provide sick time and parents can't afford to take time off work to take their children for sick or regular doctor visits during the day. This concern was echoed by a parent participant in Caribou who travels long distance to her job and has found it very difficult to schedule medical care visits for her child.[17]

Several participants also commented that unnecessary office visits affected their healthcare decisions. According to a woman in Lewiston, MaineCare has a requirement that new patients make an appointment to "meet and greet" their new PCP before scheduling an appointment for care. "They called, sent me a letter saying I needed to come in for an appointment to meet this doctor. I said, no, I don't need to go to meet this doctor. When I'm sick or my children are sick, then I'll make an

[17] This concern regarding time off from work was also cited by ED staff as an explanation for after hours visits. Most of the MaineCare focus group participants were not working so this issue arose less in the group discussions than it might in groups of working adults and parents.

appointment and meet this doctor." Others commented that having their PCPs call in prescriptions for medical conditions already known by them to reoccur (e.g., strep throat, yeast infections) would improve efficiency of treatment in community healthcare settings, thereby eliminating the necessity to go to the ED.

Quality of Patient/Physician Interaction

In many cases, the perceived quality of the patient-physician interaction influenced care setting choices. The absence of a trusting, personable, caring and responsive primary care physician who takes time to carefully listen and check things over was cited by several participants as the reason they avoided seeing their PCPs. In Caribou, two participants stated that they went to the ED precisely because they liked the ED doctor better. In contrast, a participant in Farmington stated that her husband preferred the more impersonal interaction afforded in the ED.

Several participants commented that the doctors that treated them were not competent, didn't treat them well, or didn't like patients very much. As a result, they stopped seeing their doctors and received no treatment until something serious arose, when they had to go to the ED. Perhaps the most common complaint made by participants about their PCPs involved how little time their PCPs spent diagnosing and treating them. One person commented, "In and out; it ruins trust." A participant in Bangor, speaking of her children's pediatrician, remarked, "Like I said, they are only in the room and actually looking at you for five minutes or less, almost every single time."

Several participants remarked that it was very difficult to change physicians when they were not satisfied with the care they were getting. They stated that MaineCare requires members to get permission first, a fact disputed by a number of participants. A mother in Bangor commented, "They should make it easier to switch pediatricians because to switch a pediatrician you have to call MaineCare, get permission from MaineCare, and then you have to go through the process of finding a new pediatrician. It is hard. I mean, around here there are not very many people [who] are taking new patients." In Farmington, a participant commented, "Forget trying to switch doctors. You have to prove that you're being killed and they might still say no."

A common subject of some sensitivity raised by participants in 5 locations--Farmington, Damariscotta, Calais, Caribou and Lewiston--involved their perception of unequal treatment and lack of respect by PCPs because they are on MaineCare. A participant in Lewiston said, "They [PCPs] make you feel like a low life because you are on MaineCare. It's like, that's too bad, you are on MaineCare so we're going to punish you. You know, you go to the back of the line." One individual claimed that he was treated better in the ED.

During discussions, at least one participant in Lewiston, Farmington, Bangor, Caribou and Calais commented that the high illicit drug use in their communities negatively affected the treatment they received or would have received from their PCPs and ED doctors. As MaineCare members, participants

believed that they were routinely judged to be "drug seekers" and therefore undeserving of quality health care and appropriate pain relief.

Parents with young children in Bangor

The Bangor focus group was specifically designed to consist of parents who had taken a child 4 or younger for treatment in an emergency room. These 7 participants were asked the same questions that were posed to participants in the other 5 focus groups, even though the medical conditions for taking children to the ED were often different from those leading to adult visits. Within the Bangor focus group, 8 of 12 cases of parents taking young children to EDs were cases of high fevers, vomiting, dehydration, ear infections, upper respiratory infections and inconsolability. In addition, several parents remarked that their children never seemed to get sick or injured during normal office hours, but in the middle of the night, on weekends and holidays.

Pediatric care provided by pediatricians and family doctors was rated very highly by parents in Bangor as it was by participating parents in most focus group locations. One participant, with corroboration from a number of others, stated, "When it comes to pediatric care for my kids, I give them a 5. They do an amazing job." MaineCare also received high ratings. As one parent in Lewiston said, "I think, for children, MaineCare is really good."

Whereas, deficiencies such as long wait times, lack of available primary care, impersonal physicians, and inadequate on-call services were commonly cited by participants in other groups, these conditions did not generally seem to apply as barriers to seeking pediatric care. Consequently, the only solid recommendation from this group for improving the system of care was to lower the patient-to-doctor ratio.

People with behavioral healthcare diagnoses in Portland

A seventh focus group comprised of individuals with behavioral health diagnoses, who had used an emergency department for treatment within the past year, was held in Portland. For this convenience sample, participants were recruited with the assistance of staff at Portland's Amistad Peer Support and Recovery Center. Twelve people from Amistad (8 women and 4 men) attended.

Participants in this focus group were asked to share their experiences and opinions about the factors that contributed to their ED use when other sources of treatment and support for behavioral health problems might have been available and appropriate. To a large degree, findings from the Amistad focus group were similar to the findings of the six high use/low ED use focus groups. Factors contributing to ED use for potentially avoidable reasons included: lack of timely access to outpatient clinical treatment; limited access to on-call support after hours and on weekends; and the convenience, certainty and perceived safety of treatment in EDs.

Focus group participants named the following alternatives to the ED: publicly funded community mental health centers; the homeless health clinic; a "warm line" operated by the peer support and recovery center; crisis response teams; and a crisis hotline. While these places were said to make an enormous

difference in the lives of people with mental illness by helping them "keep safe," participants noted a range of reasons why they either went directly to the ED or were referred there.

One participant commented that getting access to outpatient psychiatric treatment can be a very difficult process and that there can be a wait of up to 6 weeks to get an appointment with clinicians in one key agency. A peer counselor said, "I had somebody who was really in a rough state. We called and they said we'll call you in 6 weeks. If you don't hear back from us, call us." He also reported that, while people try to hang on in the interim, sometimes their only option is to go to the ED because they know they can get help and will feel safe there. Reportedly, this key agency has to reserve a certain amount of appointments for people being discharged from in-patient psychiatric settings. Therefore, if someone in the community is in crisis and cannot wait, they are sometimes advised by their case managers to go the ED, first for treatment, but also for speedier access to outpatient treatment.

Participants reported that, for most people living in the community, there is limited availability or ineffective on-call clinical services at night and on weekends. According to one person, there is only so much time or amount of advice on-call crisis staff can give. After hours, people are either referred to the ED or go on their own to the ED, where they feel protected and have someone to talk to.

When asked what steps they took to avoid ED use, participants reported that they applied the practice of the "crisis pyramid" and relied on their circle of friends, whenever possible, to feel safer and to avoid unnecessary hospitalizations. In this "crisis pyramid," participants first talked with their friends, then to a clinician, then to peers on the warm line, next to a crisis clinician, and finally to a physician in the ED.

In this focus group, the recommendations for systemic change were largely aimed at refining the system, by re-structuring the ED, increasing training for first responders, nurses and teachers, and providing more funding to strengthen existing programs.

Participant Recommendations

As a final question, participants were asked: "For you, what is the most important change Maine could make so you can get the care you need? " The responses are itemized below by high and low ED use.

Participants in Caribou and Calais said:

1. Stop the rotation of visiting doctors and traveling nurses. "These healthcare providers are in the community for 6 months and sometimes as short as a month, then they are gone."
2. Provide preventive care.
3. Provide more dentists.
4. Provide after-hours, on-call services.
5. Get better [trained, sociable and non judgmental] doctors.
6. Evaluate patient satisfaction with primary care physicians.

Participants in Lewiston, Farmington and Bangor said:

1. Provide more dentists.
2. Provide more walk-in clinics.
3. Reduce the time it takes to get approval for payment of non-generic drugs.
4. Get doctors who listen to patients.
5. Have more doctors accept MaineCare.
6. Expand MaineCare coverage for adults.
7. Provide preventive care.
8. Make available a bridge or safety net between the ED and PCP.
9. Provide more behavioral health services.
10. Lower the patient to doctor ratio so doctors get to know their patients.
11. Make it easier to switch pediatricians.

Participants with behavioral health needs in Portland said:

1. Make a paradigm shift. Instead of viewing frequent visits to the ED as a deficit, look at them as strengths; people are getting what they need in the absence of other resources.
2. Split up the ED into sections, one that serves people with physical problems and one that serves people with mental problems.
3. Improve police promptness to calls for help.
4. Provide better crisis training for police.
5. Provide access to case managers outside of normal office hours, especially for people who are homeless.
6. Provide more funding to staff the statewide "warm line" so people don't have to wait too long in the queue; also provide more funding for marketing and peer volunteer training.
7. Make sure that the ED doctors write prescriptions that are covered by MaineCare.
8. Change MaineCare rules to permit people to see their psychiatrists and therapists on the same day.
9. Teach counseling skills to nurses and teachers.

Discussion

Most MaineCare recipients (175,000 members) are enrolled in primary care case management (PCCM). Under MaineCare PCCM, providers are paid an enhanced fee to manage the care of patients who select or are assigned to them as their primary care provider (PCP). PCPs are required to provide coverage or access to medical advice 24 hours a day 7 days a week.

The comments from MaineCare participants in the focus groups suggests that the PCCM program is not working as intended for some MaineCare recipients. Some of the problem arises from recipients who have not experienced or do not perceive the value of an ongoing relationship with a PCP and so do not

understand the need for a baseline visit or understand the value to the provider of a medical history. It also appears from the comments of some participants, particularly in remote rural areas, that rapid turnover of community-based providers can stand as a barrier to establishing or maintaining a relationship. “Three-strikes” policies are an understandable response from providers who want to reduce inefficiencies from no-shows and to protect themselves and their staffs from abusive or irresponsible patients. However, the outcome of this strategy may be the creation of a permanent cohort of rootless, high-user patients who receive no care management and spend a lot of time in emergency departments.

VI. HEALTH SYSTEM FACTORS RELATED TO ED USE

In an effort to understand health system factors that may impact on high or low rates of emergency department use, research staff conducted interviews with hospital administrators, clinical staff within emergency departments, and community-based primary care physicians in each of the six study health service areas. In addition, we gathered data, to the extent possible, on practice hours, policies with regard to same day appointments, evening and weekend coverage, and whether a practice is open to new patients and/or accepting new MaineCare patients. Findings from these interviews or perspectives gained from the providers have been incorporated throughout the report, where relevant. The discussion, below, of health system factors related to ED use is derived almost exclusively from these interviews.

The findings from our interviews, taken together with information from the health service area profiles and focus group discussions, reinforce the perception that high rates of ED use constitutes a complex problem with no single "silver bullet" solution. However, several health system arrangements and practices emerged that have a significant impact on ED use.

Meeting Acute Care Needs in the Community

Every source of information we have examined points to barriers to primary care in the community as being directly related to increased use of emergency departments for acute primary care episodes. Barriers may be self-imposed by patient non-compliance, related to external constraints such as difficulty in taking time from work, or related to primary care practice choices such as hours of operation and open booking policy. At the simplest level, the ratio of primary care providers to total population is statistically correlated in an inverse relationship with total rates of ED use within health service areas in Maine (Figure 2).[18] Damariscotta, one of the low use study areas, has the highest provider to population ratio of any health service area in the state. Farmington, our second low-use study area is also above the state average in PCP to population ratio, while Caribou has the eighth lowest ratio of PCPs to population in Maine and Calais is at the state average. A similar relationship is observed with the two urban health service areas in the study. Bangor has 137 PCPs per 100,000 population compared to Lewiston's 105 PCPs.

However, factors other than numbers of providers affect access and rates of ED use. Figure 2, on page _ shows that the relationship between providers ratios and ED use is far from exact. Through data analysis, interviews and focus groups we identified four health system arrangements and practice patterns that appear to impact ED use positively or negatively.

[18] The counts of primary care providers are derived from data within the Licensure Division of the Department of Human Services and were gathered by an intern at the Maine Medical Association. The figures include M.D.s and D.O.s but do not include mid-level practitioners such as nurse practitioners or physician assistants.

Availability and Flexibility of PCP Care

We found some, but not systematic differences among primary care practices in different health service areas with regard to practice hours. Only in the low-use urban HSA did we find a family practice Saturday office hours. In addition, Cary hospital has Saturday clinics in the months from September through May. Administrators at Miles Memorial and Franklin Memorial hospitals both commented that weekend clinics had been tried but were terminated due to insufficient volume. Franklin Memorial Hospital holds a weekend clinic every fifth weekend (both Saturday and Sunday), a practice that seems satisfactory to both providers and the hospital. In six communities surveyed, there were primary care practices that had office hours as late as 8 pm, usually, one day a week.

Nevertheless, there were differences in total hours of availability. In one high use rural HSAs, for example, the physicians in the hospital owned practice see patients 32 hours a week and have one day designated as a "paper day." This same community uses hospitalists for inpatient care so office-based physicians are not obligated to manage the care of their patients in the hospital. In another high use HSA, Friday is a half day for patient appointments. Caribou has lost six physicians in recent years and has had difficulty replacing them.

Where substantial differences were noted between the rural high and low use study areas were protocols with regard to same day appointments and after hours urgent care. Calais Regional Medical Services (the hospital owned practice) does not leave any schedule openings for same day appointments and the practice is booked out for three months. The providers try to doublebook to fit in a patient who needs to be seen. However, the provider interviewed in Calais believed that the majority of patients who call in are not able to get appointments the same day. Eastport Health Care, an FQHC 28 miles from Calais has two providers and reserves four appointment slots a day for patients who call in. Eastport has no evening coverage, with patients referred by tape recording to the hospital emergency department. In Caribou, evening coverage of patients' calls is provided by an out-of-state nurse line without direct access to an on-call doctor. The answering service conducts phone triage to determine whether the patient should be advised to go to the emergency department or call his or her physician the next day.

In Farmington and Damariscotta, the low use rural areas, the family practices contacted all reserved times in each day's schedule for same-day appointments. In Damariscotta's Full Circle Family Medicine practice, 2/3 of the schedule is kept open and one provider, on a rotating basis, stays after the office closes from 5 to 6 pm each evening to handle unscheduled acute care visits. The Franklin Health Family Practice holds from 2 to 3 slots in the morning and 2 to 3 slots in the afternoon each day for acute visits. Both communities have shared physician on-call coverage to provide patient consultation after hours.

"Fast Track" or "Walk-in" Care availability outside of the hospital Emergency Department

One particularly salient delivery system component that takes pressure off of hospital emergency departments is alternative urgent care "walk-in" centers. In Bangor, the walk-in clinic, located in a location entirely separate from the EMMC campus, sees 25,000 patients a year. In 2006, 36,938 individuals in the Bangor HSA made a total of about 63,000 emergency department visits. If one

assumes that each of the 25,000 patients seen in the walk-in urgent care center had, instead, made at least one visit to the emergency department, that would have increased the ED volume by close to 40 percent. Patients who enter the emergency department at EMMC cannot be referred to the walk-in clinic, regardless of the level of severity of the complaint, according to the hospital's interpretation of EMTALA.[19] However, physician practices in the health service area appear to be aware of the availability of the walk-in clinic and refer "over-load" acute care patients there, rather than to the emergency department.

In contrast, Central Maine Medical Center, St. Mary's, Franklin Memorial and Cary Hospital all have "Fast Track" care systems set up within their emergency departments. These systems are specifically designed to provide timely and efficient care to lower acuity patients who present at the emergency department, frequently through use of mid-level practitioners. The system relieves congestion within the emergency department and increases patient satisfaction with wait times. However, because the care is provided in the emergency department, the overhead costs are high and the visits are billed as emergency department visits. It is also likely that these systems reinforce patient beliefs that the hospital emergency department properly functions as an urgent care center and a convenient resource for primary care at any time of the day. A dynamic referenced by a number of interviewees in both Caribou and Calais is that the emergency department physicians are the longest standing members of the medical community, are very popular with patients, and many patients see these doctors as their primary care providers.

Structure of Financing Incentives

The rate of reimbursement for a potentially avoidable visit treated in a hospital emergency department is substantially higher than for identical treatment provided in a physician office. As more and more physician practices come under the ownership of hospitals or their parent entities, the incentives to divert care from physician offices to the ED mount. This point was made very bluntly by a hospital administrator in a rural HSA (not one of the study HSAs). He stated, "Why should we ask our physicians to hold their offices open until 5 pm or 5:30 to see a patient with an acute need when we can see the patient in our emergency department and receive four times the revenue for that visit?"

This dynamic may also be particularly pronounced in areas where it is difficult to recruit and hold physicians, since it allows the hospital to limit physician work hours. However, ED providers in all the study HSAs, regardless of volume or provider ratios, indicated that the concern they heard from hospital management was how to keep ED volume up or to increase it – not how to reduce ED volume.

The structure of incentives is also evident in the wide-spread upgrades to hospital EDs recently undertaken by hospitals. Six of the eight hospitals in the study HSAs are currently undergoing or have recently undergone major renovations in the EDs to increase capacity and improve flow.

[19] The federal Emergency Medical Treatment and Active Labor Act, an "anti-dumping" law that forbids hospital emergency departments from refusing treatment.

Availability of Dental Care, particularly for acute care needs

Urgent care needs for teeth and supporting structures were among the 20 most frequently seen diagnoses in all six study areas, ranking third and fourth in Farmington and Lewiston, respectively. In interviews, providers in all the emergency departments mentioned the frequency of visits related to dental care needs and pointed out that emergency room providers are generally limited to prescribing antibiotics for infection and medications for pain control but do not have the resources for repair or restoration. Many complained of limited resources in their community for referring care out.

In 2006, 11,960 emergency department visits related to dental care needs were made in Maine just by adults between the ages of 15 and 44 (see table 1). Clearly, one area where early intervention and alternative care sites could reduce emergency department utilization is across the full spectrum of dental care from preventive care to dental surgery.

VII. PATIENT BELIEFS AND BEHAVIORS RELATED TO EMERGENCY DEPARTMENT USE

Two factors regarding patient behaviors and beliefs are likely significant contributors to over-use of emergency departments. These issues – insufficient connection to a primary care provider and drug dependence – were raised in interviews both by patients and providers.

Insufficient Connection to Primary Care Providers

The patients we spoke to (Mainecare enrollee emergency department users) and emergency department clinical providers all indicated that patients, when asked, state that they have a primary care provider (PCP). However, when probed, it frequently turns out that this relationship is tenuous. Patients in Washington and Aroostook counties complained of rapid turnover of providers which curtailed their ability to establish a relationship. Also, general shortages resulted in very long waits (five or six weeks or longer) for appointments. Further, many stated that the time pressures on physicians were such that the face-to-face time they had with providers was insufficient to get questions answered.

Another dynamic described both by providers and patients clearly reflects a misunderstanding between the parties. Providers complain that their office will get calls from patients with acute care problems when the patient has never before been to the office and there is no medical record or history. Most primary care practices give scheduling priority to existing patients and have slots for "new patients" booked out several months. Some MaineCare enrollees, on the other hand, assigned a provider by DHS, told us they see no purpose in making an appointment to "meet and greet" a physician. "I'll make an appointment when I need to see a doctor, not before," we were told. Then they are surprised and frustrated when they call with a medical complaint and are told they can be seen in five or six weeks. The emergency department is the logical alternative and once the pattern is established, these patients are unlikely to call the physician office the next time and self refer to the hospital.

Drug Dependence

Another issue raised by both patients and providers is the prevalence of emergency department traffic from individuals with dependency to pain medications seeking prescriptions. MaineCare enrollees that we spoke to raised this as a concern because they felt that the behavior of a small cohort cast suspicion upon all MaineCare recipients and made it more difficult for them to get legitimate medical problems appropriately treated. Almost all ED providers interviewed acknowledged drug seeking as a problem but had very little idea how to measure the extent of the problem. Among the ED top diagnoses seen across the state are complaints of headache, back pain, and dental pain – all difficult problems for measuring severity except based on patient self report and all difficult, in some circumstances to pinpoint an underlying pathology that can be treated. Over 11,000 visits to the ED across Maine in 2006 among adults between the ages of 15 and 44 were for diagnoses related to headache, back pain and dental

pain.[20] If just 20 percent of these visits were preventable through treatment of drug dependence, that would result in a decrease in ED visits of almost 2,300 visits.

[20] The specific ICD-9 code diagnoses included in this calculation are: headache, unspecified disorder of teeth and supporting structure, unspecified migraine, lumbago, unspecified backache, lumbar strain, and dental caries.

VIII. RECOMMENDATIONS FOR POLICY OPTIONS AND FURTHER ANALYSIS

The use of emergency departments for treatment of illnesses and conditions that can be appropriately managed in an office or clinic setting is a wide-spread phenomenon affecting all hospitals (in Maine and elsewhere). Our analyses indicate that the higher than average emergency department use experienced by some hospitals in Maine is predominantly a result of increased potentially preventable visits rather than a higher rate of use for emergency care and, therefore, should be amenable to interventions that would reduce ED use. The factors contributing to high use are complex, involve both health system arrangements and patient behaviors and are frequently mutually reinforcing. Moreover, the incentives built into the health care reimbursement system reduce motivation to introduce changes that would reduce ED use.

While provider to population ratios were among the few factors identified that show a general pattern of association with high and low ED use, this factor does not explain the very substantial growth in ED use over the past 10 years. As numerous providers in high use areas pointed out, primary care provider availability has increased in their area, population has decreased, and ED use has, nonetheless, doubled. Changes in practice patterns, patient expectations, and hospital messaging about ED purpose and availability have probably all contributed to changes in use.

Some areas where policy interventions might reduce emergency department volume, shift care to appropriate treatment locations, and reduce unnecessary health care spending, are identified below for consideration, by the ED Work Group.

1. Reimbursement Incentives

   Currently, joint hospital/physician practice systems receive greater revenue for the same care provided in an emergency department as opposed to an office setting. Physician practices, regardless of ownership, have no financial incentives to hold unscheduled slots for same day appointments. Realigning financial incentives could stimulate provider-driven innovations to direct more patients to appropriate settings where care would be less fragmented and care management, possible.

   A logical starting point for testing one or more new reimbursement models would be Maine's Patient Centered Medical Home Pilot Program. Overtime, payment models that worked satisfactorily for payers and providers in the context of the demonstration project, could be adopted more widely across the state.

2. Availability of same day, unscheduled urgent care visits

   Most of the providers interviewed for this study agreed that patients who cannot be seen the same day that contact a provider for a problem they deem to be urgent, will default to the emergency department. Our analysis indicated that the most critical health system factors that impact a community's rate of ED use are whether or not "walk-in" urgent care or open

scheduling of same day appointments are available.

3. Availability of medical advice and consultation in evenings and on weekends.
   Both our research and the research literature suggest that the availability of medical advice during times when primary care provider offices are not open can reduce emergency department visits.

4. Patient understanding of the importance of a functional provider/patient relationship and preventive health
   A complaint we heard from primary care providers related to new patients, not previously seen in the office, who call for an urgent care appointment when they are acutely ill. Providing care in the absence of a medical history is problematic for the providers and working patients in on short notice is prioritized to established patients over new patients. From the patients we heard complaints that when they called with an acute problem, they were offered an appointment weeks later. Strategies that encourage patients to establish and maintain an ongoing relationship with a provider or clinic could reduce frustrations on both sides.

5. ED visits related to dental disease
   Visits for dental complaints are the highest volume complaint among teens and young adults in the MaineCare Program and among the uninsured. Emergency departments are not staffed or equipped to deal with dental emergencies and are limited to providing pain medication and antibiotics, as appropriate. The diversion of this critical care need to an appropriate setting and improved prevention could substantially reduce ED volume.

6. Medication management in EDs.
   All ED providers we contacted acknowledged that some ED patients have developed a dependency on prescription medication and generate visits to seek medications. While small in number, these individuals may be repeat visitors. Another dynamic that can result in unnecessary visits are requests for prescription refills on weekends when patients can't reach their regular provider. Finally, ED providers can be handicapped in treating patients without access to their medical record and accurate information on current medications. Each of these issues could benefit from interventions.

7. Understanding EMTALA's constraints on creating alternative venues for patients with non-emergent care needs and billing services.

8. Limits to the efficacy of the MaineCare PCCM program.
   Hospital discharge data show that the rate of ED use by the MaineCare population is substantially higher than that of privately insured people in Maine. This fact in addition to the complaints we heard in focus groups with MaineCare participants indicate that some individuals in the MaineCare program are insufficiently linked to the primary health care system and use emergency department care as a substitute.

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APPENDIX 1.

Data Collection Instruments

ED Questions
Community Provider

1. What is your position and how long have you worked in this practice. What have been your other clinical practice experiences? Is this practice owned by the hospital or by the physicians?

2. Please describe the staffing of your practice – number of locations/offices, physicians, nurses, midlevels. How many patients are seen by your practice (total number)? Can you estimate the daily number of patients you see in the office?

3. Please describe the times available for patient office visits (days and hours). Does you practice offer any office hours on evenings, weekends? If so, has that been successful and what has been the feedback from patients?

4. What is the method of triage within your practice regarding scheduling of office visits by patients and determining acuity of complaints? Do you leave openings for scheduling same day appointments? How many?

5. What is the average wait time for an appointment for an established patient with a new complaint?

6. Does your practice have policies about referring patients to the ED after hours or on the weekend? What is your practice's call coverage arrangement?

7. Are you accepting new patients in your practice? If so, how long does a new patient wait for an appointment?

8. What are your patients instructed to do if they need prescription orders outside of the normal office hours?

9. How frequently (on a weekly basis) do you refer patients to the ED?

10. How and when do you find out if one of your patients is in the ED?

11. How often do you believe your patients self-refer to the ED? (Do not call the office before going to the ED). Probe – frequency, any particular age group, diagnoses?

12. Our ED study showed that in Maine the emergency room among infants and 19-24 year olds is much higher than the national average. Do you have any opinion about why those groups are using the ED in greater proportion? Do you have a high percentage of those age groups in your practice?

13. What do you believe are the most frequent reasons that patients use the local hospital ED for non-emergency reasons? Do you think this is a problem in your community?

14. What factors do you believe would reduce or prevent unnecessary ED use? Probes – more PCPs, more urgent care facilities at hospital, extended hours by PCPs, better chronic disease management, greater availability of home care services.

15. Is there anything unique about your community that might be affecting ED use rates?

ED Study
Provider (P)/Hospital Administrator (A) Interview Questions

I. Background

1.What is your position in the hospital, how long have you worked in this ED/hospital; what other ED experiences have you had? (A/P)

2.Describe ED staffing – number of physicians, nurses, midlevels, other staff; any idea of the volume of ED visits? Have there been any changes in staffing, resources devoted to ED in recent years? (A/P)

3. What are the peak times and days of ED use (P).

4. Please describe the hospital protocol for triage (P).

II. ED utilization

1. We are interested in the non-emergent use of EDs in Maine. Do you have any opinion about non-emergency use of the ED at your hospital? Do you think it has increased in the last two years, stayed about the same, or decreased? What do you think are the primary reasons for non-emergency visits at the ED: (A/P)

Probes: i. not enough PCPs in the community
ii. inability to schedule visits with PCP s (long waits or no extended hours)
iii. no or not enough urgent care resources in community,
iv. perception that ER provides better care than doctor's office
v. perception that ER is same as a primary care clinic.

2. Which would you say has greater impact on your ED service, high numbers of infrequent or one-time users, or a small number of frequent users?

3. How would you define a frequent user of your ED in terms of number of visits per year? Are there diagnoses that are typical of the frequent users? Do you think that the number and kind of frequent users has changed over the last year or two? Do you believe chronic ED users are a significant population in your ED? (A/P)

4. What kind of data does the hospital collect around ED use? Is data regularly collected around volume, patterns, amount of outpatient care, number of admissions from ED, DX. How often does this data get reviewed and how is data used? (A/P)

5. Our ED study showed that Maine shows a much higher rate of ED use among infants and 19-24 year olds compared to the national average.
Why do you believe that those groups are visiting EDs in Maine in greater proportion than the national average? Does that pattern reflect your hospital's experience? (P)

6. Are you aware of whether patients you see in the ED have a PCP? If so, what do you estimate is the percentage of ED patients with PCPs? How do you communicate, if at all, with PCPs regarding their patient's use of the ED? (P)

7. Do you believe that many ED patients look upon the ED as a place to receive primary care services? (A)

8. Please comment on the frequency of patients coming to the ED with the following problems. (A/P)

1. oral health problems
2. prescription refills
3. mental health problems
4. common childhood conditions typically seen in a PCP office

9. Do you ever hear the following comments from your patients in the ED; if so how frequently (P)

a. I'm here because I can't get in to see my PCP
b. I don't have any other provider
c. I'd rather come to the ED than see my PCP

III. Community and Hospital Resources

1. Do you think there is anything unique about your community/hospital and its ED use, compared with other Maine hospitals and communities? (A/P)

2. Are you aware of any policies of the medical practices in your community about referring patients to the ED? Does the hospital have guidelines for hospital-owned practices regarding referrals to the ED and arrangements for after hours care? (A)

3. Has the hospital has undertaken any actions to address non-emergency use of ED? If so, what are they? What have been the results? (A)

4. What do you think are the strategies that would reduce or prevent non-emergent use of the ED:

Probes:
1. More ED resources
2. More urgent care facilities
3. Extended hours/weekend hours for PCP
4. More PCPs better access to health care
5. Better health promotion about alternative resources
6. Patient education
7. higher copays

(A/P)

Focus Group Discussion Guide

Introduction (10 minutes)

Thank you for joining us today. I'm Danny Westcott from the Muskie School at the University of Southern Maine. I'm the moderator for today's discussion and part of the team looking into emergency room use in Maine communities. My goal is to learn from you what you've experienced getting medical care for yourself, someone in your family or someone you know well. Let me introduce [**NAME]**, s/he is here to help and will take notes.

Some background information--In an earlier study, we learned that Maine has a higher emergency room use than other states. The Department of Health and Human Services in Augusta is funding this research project because it's interested in where people go for health care and why.

Again, thanks for being here. We really appreciate your help in finding the answer to this question: Where do you go for health care in your area and why?

Before we begin, I'd like to take a moment to say a few things.

- Our discussion will last approximately 90 minutes. We should be done by **[Time]**.
- It's very important to stay for the entire discussion. Does anyone have to leave early?
- If you need to use the restroom or get a drink during the discussion, please feel free to do so. The bathrooms are (give directions). Water and snacks are over there (point).
- We will only use first names when we talk with each other. If it's OK with you, please write your first name—or the name you like to be called—on the card and put it on the table in front of you. If you'd rather not, that's fine.
- I ask that you not talk with anyone about our discussion outside of this room. It's important for you to know that people working on the project, including me, will not give your name to anyone or share any personal information about you.
- Your participation is voluntary. You can leave at any time if you want to.
- With your permission, we will tape record this session to make sure we don't miss anything you've said. [**Name]** will be assisting me by taking notes. When we type up our notes and the discussion that's recorded on tape, we will delete your names. We will also destroy the tape after it is transcribed.
- Please speak clearly, one at a time, so that we hear each other and the tape recorder can pick up each voice.
- Please remember that while we have asked everyone here to respect each other's privacy and not share anything said here with anyone else, we can't guarantee that this will happen.
- The findings of this discussion will be included in a report to the Department of Health and Human Services about use of emergency rooms in various parts of the state. If you'd like a summary of the report, please email Beth Kilbreth at bethk@usm.maine.edu or call Danny Westcott at 228-8038. We hope that the report will finished in the fall.
- And finally, as a thank you for your thoughts, time and travel, we will give you a gift card for $50 when you leave.

Focus Group Discussion Guide

Consent to Participate (5 minutes)

I believe that consent forms were sent to you so you could read them before you got here. In case you didn't get one or didn't bring the form with you, I have another one here. Please read it and if, after thinking about it, you want to take part in today's discussion, please sign it and date it. Thanks, are there any questions I can answer before we start?

Focus Group Questions (45 min)

Ice Breaker

1. Please tell us your first name, where you live, and what you like most about summertime.

Introductory Question:

2. Tell me about the kinds of places that you can go to get medical care in your area.

Transition:

3. Now think for a moment about **the last time you** went to an emergency room.

Key Questions:

4. Was the ER the **first place you contacted** about the medical care you needed? Y/N

5. What are some of the **reasons** you went to the emergency room?

6. How long had you been dealing with this issue before going to the emergency room?

7. Do you think your care could have taken place **somewhere other than** in the emergency room? Y/N

8. What made it difficult for you to get care **somewhere else**?

   ☐ after office hours ☐ no longer eligible for MaineCare/uninsured ☐ prescription refill/primary not available ☐ can't get appointment that day-need referral

   ☐ told to go there ☐ couldn't take off work /lose pay? ☐ transportation problem

   ☐ can't find doctor who'll take MaineCare ☐ child care problem

**FU Q. Of all these you've mentioned, which problem is the most difficult one you faced.

9. You've already talked about this some but to be sure it's clear, what kinds of places are available for getting health care in this area?

   ☐ doctor's office (family practice/primary care physician) ☐ walk-in clinic ☐ ER
   ☐ dentist's office ☐

10. Are these places available when you need them? For instance, if you, a family member or someone you know well is sick in the evening or on a weekend, who would you contact? FU Q: When you saw your doctor, did the doctor tell you what you should do in case you need to see someone*? [Hypothetical scenarios could be asked here – see addendum]*

Transition:

11. Now, I'd like to talk about family doctors and other places you can go for regular care. Do you have a family doctor or a regular doctor who you see for routine care? If you don't have a doctor right now, think about a time when you did have a doctor. Y/N

12. If you have a family doctor or a place to go for routine care, did you contact them before going to the emergency room? Y/N

Key questions:

13. If you call the doctor because you are sick, how long do you typically have to wait for an appointment?

14. Does your doctor have someone on call if you need help after business hours?

15. You've already talked about this some, but to be sure it's clear, are there other problems you have getting medical care from your doctor?

    ☐ hard to get a referral ☐ hard to get a telephone consult ☐ don't like doctor

Transition:

16. For this last set of questions, I'd like to talk about things like walk-in clinics or urgent care centers—places you can go to get outpatient health care without an appointment. Do you have any of these places in this area? Y/N

Key questions:

17. What do you like about these places?
18. And what do you dislike about them?

Focus Group Discussion Guide

Closing question:

19. You talked about [**cite examples**] as being some of the reasons you went to the ER rather than to your regular doctor or walk-in clinic. For you, what is the most important change that Maine could make so you could get the care you need somewhere else?

    ☐ paid sick leave ☐ child care ☐ transportation ☐ other health system improvements

20. On a scale of 1-5, how would you rate access to non-emergency care available in your area? 1 = not good, 3 = OK, 5 =excellent

    ☐ For example, # options, convenience, quality

21. Is there anything I've missed?

Many thanks again for your time and participation. The things you talked about today will be very helpful to us.

Addendum:
Hypothetical Scenarios

A. It's Monday at 5:00 PM and your baby is crying and fussing with a fever of 101 degrees. Do you have a doctor or nurse you can call?
B. It's Friday at 5:00 PM and your back pain isn't getting any better. You have already been out of work one day because of the pain, and aspirin has not made it any better.
C. You have been out of work for two days with a fever and a bad sore throat. Aspirin has helped with the fever, but the fever still comes back. You feel like you're getting worse and not better.

APPENDIX 2.

Analysis Support Documents Matrix

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
Population											
Pop (2008 census)	304,059,724	1,316,456	71,676	32,499	106,877	201,788	81,234	34,628	2008 Census	2008 Census	2008 Census
Pop (2006 census)	298,754,819	1,314,910	72,122	32,778	107,031	201,316	81,382	34,806	2006 Census	2006 Census	2006 Census
Population by HSA (2005)	N/A	N/A	17,057	12,867	121,611	131,548	33,874	12,082	N/A	N/A	By HSA Maine Quality Forum
Pop per square mile (2000 census)	79.6 (2000) 86 (2008)	41.3 (2000) 43 (2008)	11.1	13.2	220.8	Hancock- 32.6 Penobscot - 42.7	Franklin-17.4 Somerset-13	73.7	2008 Census	2008 Census	2000 Census
Pop living below poverty (2007 census)	13%	12.2%	17.4%	20.1%	14.1%	H-9.9% P-13.5%	F-16% S-17.2%	10.8%	2007 Census	2007 Census	2007 Census
Employment											
Unemployment Rate	4.6%	4.0%	6.0%	5.7%	4.3%	H-3.4% P-4.8%	F-5.4% S-5.5%	3.4%	2006 Maine DOL Center for Workforce Research and Information - not seasonally adjusted	2006 Maine DOL Center for Workforce Research and Information - not seasonally adjusted	2006 as of 8/06 Maine DOL Center for Workforce Research and Information - not seasonally adjusted
Poverty rate adult	11.9% (2006 18-64)	12.3%	16.6%	19.1%	12.0%	H-10.4% P-12.8%	F-16.9% S-16.9%	11.0%	2006 Census Maine DOL	2005 Margaret Chase Smith Policy Center UMaine, Poverty in Maine (2008)	2005 Margaret Chase Smith Policy Center UMaine, Poverty in Maine (2008)
Poverty rate child (0-17 years)	18.3% (2006)	16.7%	22.3%	28.4%	18.1%	H-15.5% P-15.3%	F-22.3% S-25.3%	16.2%	2006 Census Maine DOL	2005 Margaret Chase Smith Policy Center UMaine, Poverty in Maine (2008)	2005 Margaret Chase Smith Policy Center UMaine, Poverty in Maine (2008)
Ages											
under 19	27%	24%	21%	22%	24%	22%	23%	20%	2006 Census (19 and under)	2006 Census (19 and under)	2005 Census CHSR
19-64	60%	61%	61%	60%	62%	64%	63%	62%	2006 Census (20-64)	2006 Census (20-64)	2005 Census CHSR
65-84	11%	13%	15%	15%	12%	13%	12%	16%	2006 Census	2006 Census	2005 Census CHSR
85+	2%	2%	2%	3%	2%	2%	2%	3%	2006 Census	2006 Census	2005 Census CHSR
Insurance Coverage											

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
Uninsured	45,657,200 (2007)	118,900 (2007)	7,914	3,832	7,792	H - 6,860 P - 16,144 Total=23,004	F-3,064 S-5,895 Total=8,959	4,810	2007 Census	2007 Census	2006 Census Small Area Health Insurance Estimates (SAHIE) (<age 65)
Uninsured Percentage (#/population) 2007 state/national; 2006 county	15%	9%	11%	12%	7%	11%	11%	14%	Calculation based on 2007 population Census	Calculation based on 2007 population Census	Calculation based 2006 population Census
Medicare Elderly	35224339	189,693	12,866	6,233	14,403	H- 8,878 P-20,616 Total=29,494	F-4,662 S-7,048 Total=11,710	6,665	2006 CMS - as of 7/06	2006 CMS - as of 7/06	2007 CMS - as of 7/07
Medicare Elderly Pecentage 2006 state/ 2007 county	12%	14%	18%	19%	13%	15%	14%	19%	Calculation based on 2006 population Census	Calculation based on 2006 population Census	Calculation based on 2007 population Census
Medicare Disabled	6,689,118	48,309	4,118	1,499	4,934	H-1,620 P-7,060 Total=8,680	F-1,233 S-2,470 Total=3,703	1,041	2006 CMS - as of 7/06	2006 CMS - as of 7/06	2007 CMS - as of 7/07
Medicare Disabled Percentage 2006 state / 2007 county	2%	4%	6%	5%	5%	4%	5%	3%	Calculation based on 2006 population Census	Calculation based on 2006 population Census	Calculation based on 2007 population Census
Medicaid	39,296,400	316,947	6,006	4,094	34,705	34,322	9,755	2,263	2007 Census Kaiser Family Foundation (KFF)	CY2008 based on claims data	By HSA CY2008 based on claims data
Medicaid Percentage 2008 (2007 national)	13%	24%	35%	32%	29%	26%	29%	19%	Calculation based on 2007 population Census	Calculation based on 2008 population Census	Calculation based on 2007 HSA population
Private	173,853,200	588,058	5,378	3,543	56,085	57,482	11,947	4,353	2007 Census KFF	2006 claims analysis commercial average members (member months/12)	By HSA 2006 claims analysis commercial average members (member months/12)
Private Percentage 2006	58%	45%	32%	28%	46%	44%	35%	36%	Calculation based on 2007 population Census	Calculation based on 2006 population Census	Calculation based on 2007 HSA population
Death											

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
All causes of death (per 100,000 - age-adjusted)	898.6	N/A	889.3 (862.4-916.3)	966.8 (925.5-1008.1)	859.1 (829.1-889.2)	H-851.1 (819.1-883) P-892.5 (864.9-920)	F-831.5 (787.2-875.8) S-910.1 (874.9-945.4)	764.8 (729.3-800.4)	1999-2003 median for all US counties age adjusted NCHS CHSR	N/A	1999-2003 age adjusted NCHS (CDC - National Center for Health Statistics) CHSR (Community Health Status Report)
Causes of death by age									N/A	N/A	1999-2003 NCHS CHSR
15-24	N/A	N/A	• Injuries – 68% • Suicide – 14%	• Injuries – 64% • Suicide – 14%	• Injuries – 59% • Cancer – 10% • Suicide – 17%	o Hancock county • Injuries – 63% • Suicide – 13% o Penobscot county • Injuries – 60% • Suicide – 16%	o Franklin county none listed o Somerset county • Injuries – 48% • Suicide – 24%	• Injuries – 62% • Suicide – 14%	N/A	N/A	1999-2003 NCHS CHSR
25-44	N/A	N/A	• Injuries – 22% • Cancer – 17% • Heart disease – 18% • Suicide – 13%	• Injuries – 33% • Cancer – 23% • Suicide – 14%	• Injuries – 25% • Cancer – 21% • Heart Disease -14% • Suicide – 11%	o Hancock county • Injuries – 23% • Cancer – 24% **o** Penobscot county • Injuries – 23% • Cancer – 20% • Heart disease – 14% • Suicide – 12%	o Franklin county • Injuries – 29% • Cancer – 17% • Heart Disease -14% • Suicide – 17% o Somerset county • Injuries – 32% • Cancer – 13% • Heart Disease – 17%	• Injuries – 29% • Cancer – 21% • Heart Disease -20%	N/A	N/A	1999-2003 NCHS CHSR
45-64	N/A	N/A	• Cancer – 40% • Heart disease – 26%	• Cancer – 35% • Heart disease – 27%	• Cancer – 40% • Heart disease – 21%	o Hancock county • Cancer – 39% • Heart disease – 23% o Penobscot county • Cancer – 37% • Heart disease – 21%	o Franklin county • Cancer – 44% • Heart disease – 22% o Somerset county • Cancer – 37% • Heart disease – 23%	• Cancer – 44% • Heart disease – 22%	N/A	N/A	1999-2003 NCHS CHSR
65+	N/A	N/A	• Cancer - 21% • Heart Disease - 32%	• Cancer - 24% • Heart Disease - 30%	• Cancer - 21% • Heart Disease - 27%	o Hancock county • Cancer - 23% • Heart Disease - 31% o Penobscot county • Cancer - 22% • Heart Disease - 29%	o Franklin county • Cancer - 22% • Heart Disease - 26% o Somerset county • Cancer - 24% • Heart Disease - 31%	• Cancer - 26% • Heart Disease - 25%	N/A	N/A	1999-2003 NCHS CHSR

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
Infant Mortality (deaths per 1000 live births)	6.8	5.5	4.9	3.9	4.1	H-4.4 P-5.6	F-5.1 S-4.4	4.2	2001-2005 Maine CDC report (2008)	2001-2005 Maine CDC report (2008)	1999-2003 NCHS CHSR
Death measures - causes of death (age adjusted to year 2000 standard; per 100,000 pop)											
Breast Cancer (Female)	24.5 (24.4,24.6)	23.4 (21.9,24.9)	17.8 (12.0,23.9)	26.2 (17.5, 38.1)	27.6 (22.2,33.9)	H-25.9 (19.0,34.8) P-28.3 (23.6,33.8)	F-28.5 (18.5,42.4) S-19.3 (13.3,27.4)	20.3 (13.3,30.2)	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute
Colon and Rectum Cancer	18.2 (18.1,18.3)	18.7 (17.8,19.7)	22.9 (18.8, 27.6)	24.2 (18.2,31.7)	16.0 (13.0,19.5)	H-18.9 (14.6,24.2) P-18.2 (15.3,21.4)	F-22.7 (15.9,31.4) S-17.8 (13.3,23.3)	15.5 (11.1,21.4)	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute
Coronary Heart Disease	172 211.1 (2005)	182.7 (2005)	209.3	191.7	150.6	H-179.1 P-164.4	F-136.9 S-184.9	124.4	1999-2003 NCHS CHSR 2005 Maine CDC Burden of Chronic Disease Report ("diseases of the heart")	2005 Maine CDC Burden of Chronic Disease Report ("diseases of the heart")	1999-2003 NCHS CHSR
Lung and Bronchus Cancer	53.4 (53.3,53.5)	61.9 (60.1,63.7)	64.4 (57.5,72.0)	75.7 (64.8,88.1)	66.4 (60.1,73.3)	H-58.3 (50.5,67.1) P-65.9 (60.4,71.8)	F-50.7 (40.5,62.7) S-69.3 (60.3,79.4)	57.2 (48.2,67.6)	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute	2002-2006 National Vital Statistics public use data file; calculated by National Cancer Institute
Motor Vehicle Injury	14.8	13.8 (+/-0.9)	18.8	23.5	15.4	H-15.4 P-14.7	F-16 S-21.1	18.1	1999-2003 NCHS CHSR	2001-2005 Maine CDC Health Indicator Report	1999-2003 NCHS CHSR
Stroke	53	42.8 (2005)	57.8	68.8	53.2	H-59.9 P-64	F-62.1 S-54.5	45.6	1999-2003 NCHS CHSR	2005 Maine CDC Burden of Chronic Disease Report	1999-2003 NCHS CHSR
Suicide	10.8	13.9 (+/-1)	11	14.9	8.2	H-9.8 P-13.7	F-13.1 S-14.7	9.5	1999-2003 NCHS CHSR	2001-2005 ages 10+ Maine CDC Health Indicator Report	1999-2003 NCHS CHSR

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
Unintentional Injury	37.3	41.1 (2005)	14.9	26.9	18.8	H-26.5 P-19.6	F-20.8 S-24.3	20.9	1999-2003 NCHS CHSR	2005 Maine CDC Burden of Chronic Disease Report	1999-2003
Substance Abuse and Mental Illness											
Adult depression (moderate/severe)	N/A	7.6% (+/-1)	5.8% (+/-3.3)	7.8% (=/-3.1) (Washington, Hancock)	5.6% (=/-2) (Franklin, Oxford, Androscoggin)	13.3% (+/-3.9) (Penobscot, Piscataquis)	5.6% (=/-2) (Franklin, Oxford, Androscoggin)	6.1% (+/-2.2) (Lincoln, Sagadahoc, Knox, Waldo)	N/A	2004-2006 Maine CDC Health Indicator Report	2004-2006 Maine CDC Health Indicator Report
Substance Abuse Admissions (all ages) per 100,000	N/A	1320	1275	1141 (Washington, Hancock)	901 (Franklin, Oxford, Androscoggin)	1391 (Penobscot, Piscataquis)	901 (Franklin, Oxford, Androscoggin)	878 (Lincoln, Sagadahoc, Knox, Waldo)	N/A	2006 BRFSS Maine CDC District Health Profle (2007)	2006 BRFSS Maine CDC District Health Profle (2007)
Recent Drug Users (within past month)	N/A	N/A	5335	2403	7959	H-3901 P-11537	F-2426 S-3713	2501	N/A	N/A	2005 CHSR
Recent Drug Users (within past month)	8.1%	9.6% (8.31-11.08)	7%	7%	7%	8%	8%	7%	2006-2007 SAMHSA	2006-2007 SAMHSA	Calculation based on 2005 population Census
Have Major Depression	N/A	N/A	5275	2389	7549	H-3883 P-10453	F-2116 S-3653	2574	N/A	N/A	2005 CHSR
Have Major Depression	7.65%	8.98% (7.03-11.40)	7%	7%	7%	7%	7%	7%	2004-2005 SAMHSA	2004-2005 SAMHSA	Calculation based on 2005 population Census
Health Statistics											
Smokers	20.1	21% (+/- 1.6)	24.3%	27.5%	24.7%	H-22.5% P-24.5%	F-20.1% S-26.5%	17.2%	2006 adults Maine CDC Health Indicator Report	2006 adults Maine CDC Health Indicator Report	2000-2007 CDC BRFSS CHSR
Obesity	34%	25.2%	15.4%	25.0%	24.6%	H-17.7% P-22.6%	F-22% S-23.2%	16.8%	2005-2006 NCHS	2008 obese ages 20+ CDC US Obesity Trends - BRFSS	2000-2007 CDC BRFSS CHSR
High Blood Pressure	32%	25.4% (+/-1.6)	24.6%	32.4%	25.1%	H-15.1% P-23.5%	F-24.6% S-29.8%	27.7%	2003-2006 ages 20+ Health United States (2008)	2005 Maine CDC Health Indicator Report	2000-2007 CDC BRFSS CHSR
Diabetes	10%	7.3 (+/-0.6)	10.0%	6.6%	6.7%	H-5.8% P-8.5%	F-9.3% S-9.8%	4.3%	2003-2006 diagnosed & undiagnosed Health United States (2008)	2004-2006 adults Maine CDC Health Indicator Report	2000-2007 CDC BRFSS CHSR
High Cholesterol	16%	36.4 %(+/-2)	29.3% (includes Caribou - VanBuren)	31.3%	28.5%	27.9%	28.2%	27.7%	2003-2006 ages 20+ Health United States (2008)	2005 adults Maine CDC Health Indicator Report	By HSA Maine Quality Forum Charts

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
Asthma	8.5%	9.6% (+/-1.2)	13.3% (includes Caribou - VanBuren)	8.5%	9.3%	10.7%	9.4%	10.4%	2006 Maine CDC Health Indicator Report	2006 adults Maine CDC Health Indicator Report	By HSA Maine Quality Forum Charts
Dentists											
Dentists per 100,000	80	60 note - Cumberland 64.4 and York 30.2	31.4	26.9	39.8	H-42.9 P-42.2	F-30.3 S-27.1	39.7	2008 ADA KFF	2008 ADA KFF	2005 HRSA CHSR
Routine Dental Care in Past Year (adullts)	70.3%	70.2% (+/-1.8)	61.2% (+/-7.8)	69.7% (+/-5.5) (Washington, Hancock)	70.7% (+/-4.5) (Franklin, Oxford, Androscoggin)	66.9% (+/-5.1) (Penobscot, Piscataquis)	70.7% (+/-4.5) (Franklin, Oxford, Androscoggin)	69.8% (+/-3.7) (Lincoln, Sagadahoc, Knox, Waldo)	2006 Maine CDC Health Indicator Report	2006 BRFSS Maine CDC District Health Profle (2007)	2006 BRFSS Maine CDC District Health Profle (2007)
# Active General Practice (GP) Dentists	N/A	464	18	10	35	H-20 P-54	F-8 S-12	12	N/A	2006 as of 1/1/06 Maine Office of Data, Research and Vital Statistics (ODRVS)	2006 as of 1/1/06 Maine ODRVS
Active General Practice (GP) Dentists per 100,000	N/A	35.29	24.96	30.51	32.70	36.76	24.58	34.48	N/A	Calculation based on 2006 population Census	Calculation based on 2006 population Census
# Active GP that treat MaineCare	N/A	206	15	8	7	H-14 P-26	F-5 S-3	4	N/A	2006 as of 1/1/06 Maine ODRVS	2006 as of 1/1/06 Maine ODRVS
Active GP that treat MaineCare per 100,000	N/A	15.67	20.80	24.41	6.54	19.87	9.83	11.49	N/A	Calculation based on 2006 population Census	Calculation based on 2006 population Census
# Active GP that accept new MaineCare	N/A	80	8	6	2	H-8 P-13	F-3 S-0	1	N/A	2006 as of 1/1/06 Maine ODRVS	2006 as of 1/1/06 Maine ODRVS
Active GP that accept new MaineCare per 100,000	N/A	6.08	11.09	18.30	1.87	10.43	3.69	2.87	N/A	Calculation based on 2006 population Census	Calculation based on 2006 population Census
Number of Practices Cataloged	N/A	N/A	2	6	38	67	17	7	N/A	N/A	By HSA 2009 MaineCare list and online list ADA
Primary Care Providers											
PCP per 100,000	124	109	76	101	105	137	121	157	2006 Maine State Health Plan (08/09)	2005 Maine Quality Forum	By HSA 2005 Maine Quality Forum

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
Specialists per 100,000	N/A	N/A	45.06	38.87	67.57	H-50.32 P-95.19	F-30.3 S-34.84	59.59	N/A	N/A	2005 BRFSS Supplement (2006)
Number of Practices Cataloged	N/A	N/A	7	8	35	34	15	5	N/A	N/A	By HSA 2009 MaineCare list and online list MMA
Resources											
# School Based Health Centers	1709	27	0	2 (Calais Mid/HS)	8 (Lewiston Mid/HS; Auburn Mid/HS; Monmouth Elem/Mid/HS; Livermore Elem)	2 (Brewer Mid/HS)	5 (Dental outreach to Livermore Mid/HS; Jay Elem/Mid/HS)	3 (SAU #74 Schools Elem/Lincoln Academy HS/Matanawcook Academy)	2004-2005 National Assembly on School-Based Health Care	2009 Maine Assembly on School-Based Health Care (2009) Maine Children's Alliance (2009)	By HSA 2009 Maine Assembly on School-Based Health Care (2009) Maine Children's Alliance (2009)
# Mental Health Agencies	N/A	293	3	3	21	18	10	3	N/A	2009 Maine DHHS OMHS Mental Health Resources (includes counseling, crisis, residential, leisure, medication clinic, etc.) Count by agencies in each town.	By HSA 2009 Maine DHHS OMHS Mental Health Resources (includes counseling, crisis, residential, leisure, medication clinic, etc.) Count by agencies in each town.
# Mental Health Agencies - Crisis Services	N/A	32	1	0	1	3	1	0		2009 Maine DHHS OMHS Mental Health Resources Count by agencies in each town.	2009 Maine DHHS OMHS Mental Health Resources Count by agencies in each town.

	National	State	Caribou (Aroostook)	Calais (Washington)	Lewiston (Androscoggin)	Bangor (Penobscot, Hancock)	Farmington (Franklin, Somerset)	Damariscotta (Lincoln)	Years and Source		
High or Low ED Use			**High**	**High**	**High**	**Low**	**Low**	**Low**	**National**	**State**	**County (by county, unless noted)**
Rural or Urban			**Rural**	**Rural**	**Urban**	**Urban**	**Rural**	**Rural**			
# Community Health Centers	1,067 FQHC 3,751 Rural Health Clinics	18 FQHC 38 Rural Health Clinics	4	4	13	14	4	0	2007 FQHC National Association of Community Health Centers, Inc. KFF 2009 Rural Health CMS KFF	2009 HRSA Find a health center	2009 HRSA Find a health center
# Urgent Care Centers	8,113	N/A	0	0	1 Concentra	2 Concentra EMMC Walk-In Care Center	0	0	Weinick RM, Bristol SJ, Marder JE, DesRoches CM. *Urgent Care Update: The Search for the Urgent Care Center* . Journal of Urgent Care Medicine. January 2009	N/A	By HSA 2009 online search and interviews

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
<1	Commercial	UNSPECIFIED OTITIS MEDIA	366	0
<1	Commercial	ACUTE URIS OF UNSPECIFIED SITE	302	7
<1	Commercial	FEVER	251	7
<1	Commercial	UNSPEC VIRAL INF CCE & UNS SITE	120	4
<1	Commercial	CONTUS FACE SCALP&NECK EXCEPT EYE	88	0
<1	Commercial	VOMITING ALONE	78	0
<1	Commercial	ACUT BRONCHIOLITIS-OTH INF ORGNSMS	68	8
<1	Commercial	CROUP	67	3
<1	Commercial	FUSSY INFANT	55	0
<1	Commercial	UNSPECIFIED CONJUNCTIVITIS	54	0
<1	Commercial	COUGH	51	0
<1	Commercial	UNS NONINF GASTROENTERIT&COLITIS	48	1
<1	Commercial	HEAD INJURY, UNSPECIFIED	47	0
<1	Commercial	OBSERVATION FOLLOWING OTH ACCIDENT	39	0
<1	Commercial	OBSERVATION OTH SPEC SUSPECTED COND	39	0
<1	Commercial	PNEUMONIA, ORGANISM UNSPECIFIED	30	4
<1	Commercial	RASH&OTH NONSPECIFIC SKIN ERUPTION	26	0
<1	Commercial	DIARRHEA	26	2
<1	Commercial	ACUTE BRONCHIOLITIS DUE TO RSV	25	30
<1	Commercial	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	25	0
<1	Commercial	RESPIRATORY SYNCYTIAL VIRUS	23	0
<1	Commercial	UTI SITE NOT SPECIFIED	23	3
<1	Commercial	FLU W/OTH RESPIRATORY MANIFESTS	22	1
<1	Commercial	UNSPECIFIED CONSTIPATION	21	0
<1	Commercial	INTESTINAL INF DUE OTH ORGANISM NEC	18	7
<1	Commercial	CANDIDIASIS OF MOUTH	18	0
<1	Commercial	UNSPECIFIED ACUTE CONJUNCTIVITIS	18	0
<1	Commercial	ASTHMA, UNSPECIFIED, UNSPECIFIED	18	3
<1	Commercial	FEBRILE CONVULSIONS SIMPLE UNSPEC	16	2
<1	Commercial	DEHYDRATION	15	6
<1	Medicaid	ACUTE URIS OF UNSPECIFIED SITE	1253	8
<1	Medicaid	UNSPECIFIED OTITIS MEDIA	1126	2
<1	Medicaid	FEVER	557	7
<1	Medicaid	UNSPEC VIRAL INF CCE & UNS SITE	428	6
<1	Medicaid	VOMITING ALONE	264	2

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
<1	Medicaid	UNSPECIFIED CONJUNCTIVITIS	193	0
<1	Medicaid	FUSSY INFANT	192	0
<1	Medicaid	UNS NONINF GASTROENTERIT&COLITIS	178	2
<1	Medicaid	PNEUMONIA, ORGANISM UNSPECIFIED	158	13
<1	Medicaid	ACUT BRONCHIOLITIS-OTH INF ORGNSMS	143	21
<1	Medicaid	OBSERVATION OTH SPEC SUSPECTED COND	131	0
<1	Medicaid	COUGH	128	0
<1	Medicaid	CONTUS FACE SCALP&NECK EXCEPT EYE	126	2
<1	Medicaid	CANDIDIASIS OF MOUTH	105	0
<1	Medicaid	DIAPER OR NAPKIN RASH	105	0
<1	Medicaid	CROUP	104	3
<1	Medicaid	RASH&OTH NONSPECIFIC SKIN ERUPTION	103	0
<1	Medicaid	UNSPECIFIED CONSTIPATION	91	2
<1	Medicaid	DIARRHEA	86	2
<1	Medicaid	HEAD INJURY, UNSPECIFIED	80	0
<1	Medicaid	TEETHING SYNDROME	68	0
<1	Medicaid	INTESTINAL INF DUE OTH ORGANISM NEC	65	8
<1	Medicaid	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	63	0
<1	Medicaid	ABDOMINAL PAIN, UNSPECIFIED SITE	57	0
<1	Medicaid	ACUTE BRONCHIOLITIS DUE TO RSV	54	31
<1	Medicaid	UNSPECIFIED VIRAL EXANTHEM	53	0
<1	Medicaid	ASTHMA, UNSPECIFIED, UNSPECIFIED	51	3
<1	Medicaid	OTHER DISEASES NASAL CAVITY&SINUSES	50	0
<1	Medicaid	CONTCT DERMATIT&OTH ECZEMA-UNS CAUS	50	0
<1	Medicaid	ESOPHAGEAL REFLUX	48	5
<1	Medicare	ACUTE URIS OF UNSPECIFIED SITE	16	0
<1	Medicare	UNSPECIFIED OTITIS MEDIA	13	0
<1	Medicare	FEVER	10	0
<1	Medicare	DIAPER OR NAPKIN RASH	3	0
<1	Medicare	FUSSY INFANT	3	0
<1	Medicare	CROUP	2	0
<1	Medicare	ACUT BRONCHIOLITIS-OTH INF ORGNSMS	2	0
<1	Medicare	UNSPECIFIED CONSTIPATION	2	0
<1	Medicare	UNSPECIFIED FETAL&NEONATAL JAUNDICE	2	0
<1	Medicare	COUGH	2	0

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For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
<1	Medicare	VOMITING ALONE	2	0
<1	Medicare	CONTUS FACE SCALP&NECK EXCEPT EYE	2	0
<1	Medicare	OBSERVATION OTH SPEC SUSPECTED COND	2	0
<1	Medicare	UNSPEC VIRAL INF CCE & UNS SITE	1	0
<1	Medicare	CANDIDIASIS OF MOUTH	1	0
<1	Medicare	UNSPECIFIED ACUTE CONJUNCTIVITIS	1	0
<1	Medicare	OTOGENIC PAIN	1	0
<1	Medicare	OTH SPEC CIRC SYSTEM DISORDERS	1	0
<1	Medicare	ACUTE BRONCHITIS	1	0
<1	Medicare	PNEUMONIA DUE TO RSV	1	0
<1	Medicare	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	1	0
<1	Medicare	CNTC DERMATIT&ECZEM-FOOD CNTC-SKIN	1	0
<1	Medicare	TOXIC ERYTHEMA	1	0
<1	Medicare	TRANSIENT ALTERATION OF AWARENESS	1	0
<1	Medicare	FEBRILE CONVULSIONS SIMPLE UNSPEC	1	0
<1	Medicare	SWELLING MASS OR LUMP IN HEAD&NECK	1	0
<1	Medicare	DIARRHEA	1	0
<1	Medicare	ABDOMINAL PAIN, UNSPECIFIED SITE	1	0
<1	Medicare	CONCUSSION WITH NO LOC	1	0
<1	Medicare	OTHER SPEC OPEN WOUND OCULAR ADNEXA	1	0
<1	Other	UNSPECIFIED OTITIS MEDIA	53	0
<1	Other	ACUTE URIS OF UNSPECIFIED SITE	27	0
<1	Other	FEVER	26	0
<1	Other	CONTUS FACE SCALP&NECK EXCEPT EYE	15	0
<1	Other	UNS NONINF GASTROENTERIT&COLITIS	11	0
<1	Other	CROUP	9	0
<1	Other	RASH&OTH NONSPECIFIC SKIN ERUPTION	9	0
<1	Other	UNSPEC VIRAL INF CCE & UNS SITE	8	0
<1	Other	PNEUMONIA, ORGANISM UNSPECIFIED	7	1
<1	Other	COUGH	7	0
<1	Other	FUSSY INFANT	6	0
<1	Other	DIARRHEA	6	0
<1	Other	RESPIRATORY SYNCYTIAL VIRUS	5	0
<1	Other	ACUT BRONCHIOLITIS-OTH INF ORGNSMS	5	1

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
<1	Other	DIAPER OR NAPKIN RASH	5	0
<1	Other	UNSPECIFIED CONJUNCTIVITIS	4	0
<1	Other	UNSPECIFIED CONSTIPATION	4	0
<1	Other	OTH SPEC CONDS ORIG PERINTL PERIOD	4	0
<1	Other	VOMITING ALONE	4	0
<1	Other	OBSERVATION FOLLOWING OTH ACCIDENT	4	0
<1	Other	ASTHMA, UNSPECIFIED, UNSPECIFIED	3	0
<1	Other	UTI SITE NOT SPECIFIED	3	0
<1	Other	OBSERVATION OTH SPEC SUSPECTED COND	3	0
<1	Other	INTESTINAL INF DUE OTH ORGANISM NEC	2	1
<1	Other	ACUTE BRONCHIOLITIS DUE TO RSV	2	0
<1	Other	PNEUMONIA DUE TO RSV	2	0
<1	Other	CONTCT DERMATIT&OTH ECZEMA-UNS CAUS	2	0
<1	Other	ALLERGIC URTICARIA	2	0
<1	Other	FEEDING PROBLEMS IN NEWBORN	2	0
<1	Other	FEEDING DIFFICULTIES&MISMANAGEMENT	2	0
<1	Uninsured	ACUTE URIS OF UNSPECIFIED SITE	85	1
<1	Uninsured	UNSPECIFIED OTITIS MEDIA	54	0
<1	Uninsured	FEVER	32	0
<1	Uninsured	UNSPEC VIRAL INF CCE & UNS SITE	23	1
<1	Uninsured	FUSSY INFANT	16	0
<1	Uninsured	VOMITING ALONE	14	0
<1	Uninsured	CANDIDIASIS OF MOUTH	13	0
<1	Uninsured	RASH&OTH NONSPECIFIC SKIN ERUPTION	13	0
<1	Uninsured	OBSERVATION OTH SPEC SUSPECTED COND	12	0
<1	Uninsured	UNSPECIFIED CONJUNCTIVITIS	11	0
<1	Uninsured	CROUP	11	0
<1	Uninsured	PNEUMONIA, ORGANISM UNSPECIFIED	10	0
<1	Uninsured	COUGH	10	1
<1	Uninsured	UNSPECIFIED FETAL&NEONATAL JAUNDICE	9	1
<1	Uninsured	CONTUS FACE SCALP&NECK EXCEPT EYE	9	0
<1	Uninsured	OTHER DISEASES NASAL CAVITY&SINUSES	8	0
<1	Uninsured	UNS NONINF GASTROENTERIT&COLITIS	8	0
<1	Uninsured	DIAPER OR NAPKIN RASH	8	0
<1	Uninsured	ABDOMINAL PAIN, UNSPECIFIED SITE	8	0

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
<1	Uninsured	OBSERVATION FOLLOWING OTH ACCIDENT	8	0
<1	Uninsured	UNSPECIFIED VIRAL EXANTHEM	7	0
<1	Uninsured	UNSPECIFIED CONSTIPATION	7	0
<1	Uninsured	OTH SPEC CONDS ORIG PERINTL PERIOD	7	0
<1	Uninsured	FEEDING PROBLEMS IN NEWBORN	6	0
<1	Uninsured	HEAD INJURY, UNSPECIFIED	6	0
<1	Uninsured	TEETHING SYNDROME	5	0
<1	Uninsured	DIARRHEA	5	0
<1	Uninsured	OBSERVATION UNSPEC SUSPECTED COND	5	0
<1	Uninsured	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	4	0
<1	Uninsured	ASTHMA, UNSPECIFIED, UNSPECIFIED	4	0
<1	Total	ACUTE URIS OF UNSPECIFIED SITE	1682	16
<1	Total	UNSPECIFIED OTITIS MEDIA	1612	2
<1	Total	FEVER	876	14
<1	Total	UNSPEC VIRAL INF CCE & UNS SITE	580	11
<1	Total	VOMITING ALONE	362	2
<1	Total	FUSSY INFANT	272	0
<1	Total	UNSPECIFIED CONJUNCTIVITIS	262	0
<1	Total	UNS NONINF GASTROENTERIT&COLITIS	245	3
<1	Total	CONTUS FACE SCALP&NECK EXCEPT EYE	240	2
<1	Total	ACUT BRONCHIOLITIS-OTH INF ORGNSMS	221	30
<1	Total	PNEUMONIA, ORGANISM UNSPECIFIED	205	18
<1	Total	COUGH	198	1
<1	Total	CROUP	193	6
<1	Total	OBSERVATION OTH SPEC SUSPECTED COND	187	0
<1	Total	RASH&OTH NONSPECIFIC SKIN ERUPTION	151	0
<1	Total	CANDIDIASIS OF MOUTH	138	0
<1	Total	DIAPER OR NAPKIN RASH	135	0
<1	Total	HEAD INJURY, UNSPECIFIED	135	0
<1	Total	UNSPECIFIED CONSTIPATION	125	2
<1	Total	DIARRHEA	124	4
<1	Total	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	94	0
<1	Total	OBSERVATION FOLLOWING OTH ACCIDENT	91	0
<1	Total	INTESTINAL INF DUE OTH ORGANISM NEC	87	17
<1	Total	TEETHING SYNDROME	85	0

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
<1	Total	ACUTE BRONCHIOLITIS DUE TO RSV	84	63
<1	Total	ABDOMINAL PAIN, UNSPECIFIED SITE	83	1
<1	Total	ASTHMA, UNSPECIFIED, UNSPECIFIED	76	6
<1	Total	OTHER DISEASES NASAL CAVITY&SINUSES	71	0
<1	Total	UNSPECIFIED VIRAL EXANTHEM	70	1
<1	Total	UTI SITE NOT SPECIFIED	67	11
15-24	Commercial	ACUTE PHARYNGITIS	1583	2
15-24	Commercial	UNSPEC SITE ANKLE SPRAIN&STRAIN	1116	0
15-24	Commercial	UTI SITE NOT SPECIFIED	859	1
15-24	Commercial	NECK SPRAIN AND STRAIN	796	1
15-24	Commercial	ABDOMINAL PAIN, UNSPECIFIED SITE	647	2
15-24	Commercial	OPEN WOUND FINGER W/O MENTION COMP	643	0
15-24	Commercial	ACUTE URIS OF UNSPECIFIED SITE	586	1
15-24	Commercial	UNSPECIFIED OTITIS MEDIA	492	0
15-24	Commercial	HEADACHE	492	0
15-24	Commercial	CONTUS FACE SCALP&NECK EXCEPT EYE	492	1
15-24	Commercial	UNSPEC VIRAL INF CCE & UNS SITE	451	3
15-24	Commercial	CONTUSION OF HAND	399	0
15-24	Commercial	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	397	0
15-24	Commercial	DEPRESSIVE DISORDER NEC	396	6
15-24	Commercial	UNS NONINF GASTROENTERIT&COLITIS	395	7
15-24	Commercial	ACUTE TONSILLITIS	381	3
15-24	Commercial	SYNCOPE AND COLLAPSE	355	5
15-24	Commercial	ABDOMINAL PAIN OTHER SPECIFIED SITE	341	6
15-24	Commercial	STREPTOCOCCAL SORE THROAT	330	1
15-24	Commercial	LUMBAR SPRAIN AND STRAIN	287	0
15-24	Commercial	INFECTIOUS MONONUCLEOSIS	271	19
15-24	Commercial	OPEN WND HND NO FNGR ALONE W/O COMP	270	0
15-24	Commercial	NONDPND ALCOHL ABS UNS DRUNKENNESS	260	5
15-24	Commercial	ACUTE BRONCHITIS	260	0
15-24	Commercial	UNSPEC D/O TEETH&SUPPORTING STRCT	254	0
15-24	Commercial	SPRAIN&STRAIN UNSPEC SITE KNEE&LEG	251	0
15-24	Commercial	PAINFUL RESPIRATION	248	0
15-24	Commercial	HEAD INJURY, UNSPECIFIED	248	2
15-24	Commercial	UNSPECIFIED CONJUNCTIVITIS	247	0

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
15-24	Commercial	SPRAIN&STRAIN UNSPEC SITE WRIST	247	0
15-24	Medicaid	ACUTE PHARYNGITIS	1899	0
15-24	Medicaid	UNSPEC D/O TEETH&SUPPORTING STRCT	1755	0
15-24	Medicaid	ACUTE URIS OF UNSPECIFIED SITE	1173	0
15-24	Medicaid	UTI SITE NOT SPECIFIED	1170	5
15-24	Medicaid	ABDOMINAL PAIN, UNSPECIFIED SITE	1060	2
15-24	Medicaid	UNSPEC SITE ANKLE SPRAIN&STRAIN	1011	0
15-24	Medicaid	OTH CURRENT MATERNAL CCE ANTEPARTUM	879	20
15-24	Medicaid	DEPRESSIVE DISORDER NEC	800	19
15-24	Medicaid	HEADACHE	799	4
15-24	Medicaid	UNSPECIFIED OTITIS MEDIA	795	0
15-24	Medicaid	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	736	0
15-24	Medicaid	UNSPEC VIRAL INF CCE & UNS SITE	622	1
15-24	Medicaid	LUMBAGO	619	0
15-24	Medicaid	AC APICAL PRDONTITIS PULPAL ORIGIN	604	0
15-24	Medicaid	CONTUSION OF HAND	603	0
15-24	Medicaid	UNSPECIFIED DENTAL CARIES	601	0
15-24	Medicaid	ABDOMINAL PAIN OTHER SPECIFIED SITE	601	8
15-24	Medicaid	UNS NONINF GASTROENTERIT&COLITIS	585	11
15-24	Medicaid	OPEN WOUND FINGER W/O MENTION COMP	481	0
15-24	Medicaid	LUMBAR SPRAIN AND STRAIN	479	0
15-24	Medicaid	UNSPECIFIED BACKACHE	477	2
15-24	Medicaid	PERIAPICAL ABSCESS WITHOUT SINUS	470	2
15-24	Medicaid	CONTUS FACE SCALP&NECK EXCEPT EYE	460	1
15-24	Medicaid	ANXIETY STATE, UNSPECIFIED	443	0
15-24	Medicaid	NECK SPRAIN AND STRAIN	440	1
15-24	Medicaid	ASTHMA UNSPECIFIED W/EXACERBATION	435	17
15-24	Medicaid	STREPTOCOCCAL SORE THROAT	392	0
15-24	Medicaid	UNSPEC SX ASSOC W/FE GENIT ORGN	387	0
15-24	Medicaid	ASTHMA, UNSPECIFIED, UNSPECIFIED	386	1
15-24	Medicaid	UNSPECIFIED SINUSITIS	382	0
15-24	Medicare	UNSPEC D/O TEETH&SUPPORTING STRCT	79	0
15-24	Medicare	DEPRESSIVE DISORDER NEC	51	1
15-24	Medicare	ACUTE PHARYNGITIS	45	0

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
15-24	Medicare	UTI SITE NOT SPECIFIED	42	1
15-24	Medicare	ACUTE URIS OF UNSPECIFIED SITE	38	0
15-24	Medicare	HEADACHE	35	0
15-24	Medicare	UNSPEC SITE ANKLE SPRAIN&STRAIN	35	0
15-24	Medicare	ABDOMINAL PAIN, UNSPECIFIED SITE	30	0
15-24	Medicare	CONTUS FACE SCALP&NECK EXCEPT EYE	30	0
15-24	Medicare	ASTHMA UNSPECIFIED W/EXACERBATION	29	1
15-24	Medicare	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	27	0
15-24	Medicare	OPEN WOUND FINGER W/O MENTION COMP	25	0
15-24	Medicare	UNSPECIFIED OTITIS MEDIA	24	0
15-24	Medicare	LUMBAGO	24	0
15-24	Medicare	UNSPECIFIED BACKACHE	24	0
15-24	Medicare	VOMITING ALONE	23	0
15-24	Medicare	ANXIETY STATE, UNSPECIFIED	22	0
15-24	Medicare	OTH CURRENT MATERNAL CCE ANTEPARTUM	22	1
15-24	Medicare	UNSPEC SX ASSOC W/FE GENIT ORGN	21	0
15-24	Medicare	UNSPECIFIED PSYCHOSIS	20	3
15-24	Medicare	NAUSEA WITH VOMITING	20	0
15-24	Medicare	ABDOMINAL PAIN OTHER SPECIFIED SITE	20	0
15-24	Medicare	PAIN IN SOFT TISSUES OF LIMB	19	0
15-24	Medicare	STREPTOCOCCAL SORE THROAT	18	0
15-24	Medicare	UNSPEC VIRAL INF CCE & UNS SITE	18	0
15-24	Medicare	OTHER CONVULSIONS	18	0
15-24	Medicare	UNSPECIFIED DENTAL CARIES	17	0
15-24	Medicare	UNS NONINF GASTROENTERIT&COLITIS	17	0
15-24	Medicare	ABDOMINAL PAIN RIGHT LOWER QUADRANT	17	0
15-24	Medicare	CONTUSION OF HAND	17	0
15-24	Other	OPEN WOUND FINGER W/O MENTION COMP	690	0
15-24	Other	UNSPEC SITE ANKLE SPRAIN&STRAIN	162	0
15-24	Other	OPEN WND HND NO FNGR ALONE W/O COMP	155	0
15-24	Other	LUMBAR SPRAIN AND STRAIN	126	0
15-24	Other	ACUTE PHARYNGITIS	95	0
15-24	Other	CONTUSION OF HAND	87	0
15-24	Other	SPRAIN&STRAIN UNSPEC SITE WRIST	81	0

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
15-24	Other	LUMBAGO	79	0
15-24	Other	NECK SPRAIN AND STRAIN	74	0
15-24	Other	CONTUS FACE SCALP&NECK EXCEPT EYE	72	0
15-24	Other	CONTUSION OF FINGER	71	0
15-24	Other	SPRAIN&STRAIN UNSPEC SITE KNEE&LEG	67	0
15-24	Other	SPRAIN&STRAIN UNS SITE SHLDR&UP ARM	66	0
15-24	Other	THORACIC SPRAIN AND STRAIN	64	0
15-24	Other	ATTENTION TO DRESSINGS AND SUTURES	60	0
15-24	Other	UTI SITE NOT SPECIFIED	59	0
15-24	Other	ABDOMINAL PAIN, UNSPECIFIED SITE	57	0
15-24	Other	SUPERFICIAL INJURY OF CORNEA	57	0
15-24	Other	HEADACHE	50	0
15-24	Other	CONTUSION OF FOOT	50	0
15-24	Other	UNS NONINF GASTROENTERIT&COLITIS	49	0
15-24	Other	OPEN WND KNEE LEG&ANK W/O COMP	49	0
15-24	Other	HEALTH EXAM DEFINED SUBPOPULATION	49	0
15-24	Other	OPEN WOUND FOREARM W/O MENTION COMP	47	0
15-24	Other	OPEN WOUND SCLP W/O MENTION COMP	45	0
15-24	Other	DEPRESSIVE DISORDER NEC	43	0
15-24	Other	CRUSHING INJURY OF FINGER	43	0
15-24	Other	FB UNSPEC SITE EXTERNAL EYE	41	0
15-24	Other	OTH CURRENT MATERNAL CCE ANTEPARTUM	40	2
15-24	Other	UNSPECIFIED BACKACHE	40	0
15-24	Uninsured	ACUTE PHARYNGITIS	605	0
15-24	Uninsured	UNSPEC D/O TEETH&SUPPORTING STRCT	525	0
15-24	Uninsured	UTI SITE NOT SPECIFIED	351	0
15-24	Uninsured	UNSPEC SITE ANKLE SPRAIN&STRAIN	272	0
15-24	Uninsured	ACUTE URIS OF UNSPECIFIED SITE	254	0
15-24	Uninsured	OPEN WOUND FINGER W/O MENTION COMP	227	0
15-24	Uninsured	NECK SPRAIN AND STRAIN	224	0
15-24	Uninsured	DEPRESSIVE DISORDER NEC	219	3
15-24	Uninsured	PERIAPICAL ABSCESS WITHOUT SINUS	214	0
15-24	Uninsured	ABDOMINAL PAIN, UNSPECIFIED SITE	213	1
15-24	Uninsured	UNSPECIFIED DENTAL CARIES	209	0

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
15-24	Uninsured	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	201	0
15-24	Uninsured	AC APICAL PRDONTITIS PULPAL ORIGIN	201	0
15-24	Uninsured	HEADACHE	197	0
15-24	Uninsured	UNSPECIFIED OTITIS MEDIA	194	0
15-24	Uninsured	ACUTE BRONCHITIS	191	0
15-24	Uninsured	UNSPEC VIRAL INF CCE & UNS SITE	187	1
15-24	Uninsured	CONTUSION OF HAND	178	0
15-24	Uninsured	UNS NONINF GASTROENTERIT&COLITIS	174	3
15-24	Uninsured	LUMBAGO	172	0
15-24	Uninsured	LUMBAR SPRAIN AND STRAIN	168	0
15-24	Uninsured	CONTUS FACE SCALP&NECK EXCEPT EYE	165	1
15-24	Uninsured	NONDPND ALCOHL ABS UNS DRUNKENNESS	163	2
15-24	Uninsured	ACUTE TONSILLITIS	159	0
15-24	Uninsured	ASTHMA UNSPECIFIED W/EXACERBATION	153	2
15-24	Uninsured	OPEN WND HND NO FNGR ALONE W/O COMP	149	0
15-24	Uninsured	STREPTOCOCCAL SORE THROAT	146	0
15-24	Uninsured	ABDOMINAL PAIN OTHER SPECIFIED SITE	137	3
15-24	Uninsured	ANXIETY STATE, UNSPECIFIED	128	1
15-24	Uninsured	ASTHMA, UNSPECIFIED, UNSPECIFIED	118	0
15-24	Total	ACUTE PHARYNGITIS	4226	2
15-24	Total	UNSPEC D/O TEETH&SUPPORTING STRCT	2634	0
15-24	Total	UNSPEC SITE ANKLE SPRAIN&STRAIN	2596	0
15-24	Total	UTI SITE NOT SPECIFIED	2481	7
15-24	Total	ACUTE URIS OF UNSPECIFIED SITE	2083	1
15-24	Total	OPEN WOUND FINGER W/O MENTION COMP	2066	0
15-24	Total	ABDOMINAL PAIN, UNSPECIFIED SITE	2007	5
15-24	Total	HEADACHE	1573	4
15-24	Total	NECK SPRAIN AND STRAIN	1550	2
15-24	Total	UNSPECIFIED OTITIS MEDIA	1537	0
15-24	Total	DEPRESSIVE DISORDER NEC	1508	29
15-24	Total	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	1396	0
15-24	Total	UNSPEC VIRAL INF CCE & UNS SITE	1311	5
15-24	Total	CONTUSION OF HAND	1284	0
15-24	Total	UNS NONINF GASTROENTERIT&COLITIS	1220	21
15-24	Total	CONTUS FACE SCALP&NECK EXCEPT EYE	1219	3

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
15-24	Total	OTH CURRENT MATERNAL CCE ANTEPARTUM	1186	27
15-24	Total	LUMBAGO	1139	0
15-24	Total	ABDOMINAL PAIN OTHER SPECIFIED SITE	1132	17
15-24	Total	LUMBAR SPRAIN AND STRAIN	1073	0
15-24	Total	AC APICAL PRDONTITIS PULPAL ORIGIN	936	0
15-24	Total	STREPTOCOCCAL SORE THROAT	908	1
15-24	Total	UNSPECIFIED DENTAL CARIES	899	0
15-24	Total	ASTHMA UNSPECIFIED W/EXACERBATION	884	29
15-24	Total	ACUTE TONSILLITIS	876	4
15-24	Total	ACUTE BRONCHITIS	862	0
15-24	Total	UNSPECIFIED BACKACHE	822	2
15-24	Total	OPEN WND HND NO FNGR ALONE W/O COMP	820	0
15-24	Total	PERIAPICAL ABSCESS WITHOUT SINUS	799	2
15-24	Total	ANXIETY STATE, UNSPECIFIED	783	2
25-44	Commercial	ACUTE PHARYNGITIS	1580	0
25-44	Commercial	OTHER CHEST PAIN	1361	87
25-44	Commercial	HEADACHE	1241	10
25-44	Commercial	OPEN WOUND FINGER W/O MENTION COMP	1218	0
25-44	Commercial	ABDOMINAL PAIN, UNSPECIFIED SITE	1110	9
25-44	Commercial	NECK SPRAIN AND STRAIN	1109	6
25-44	Commercial	UNSPEC SITE ANKLE SPRAIN&STRAIN	1031	0
25-44	Commercial	UNSPECIFIED CHEST PAIN	1022	32
25-44	Commercial	UTI SITE NOT SPECIFIED	924	10
25-44	Commercial	LUMBAGO	887	7
25-44	Commercial	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	882	2
25-44	Commercial	UNS MIGRAINE W/O INTRACT MIGRAINE	846	5
25-44	Commercial	ACUTE URIS OF UNSPECIFIED SITE	802	0
25-44	Commercial	LUMBAR SPRAIN AND STRAIN	796	2
25-44	Commercial	ABDOMINAL PAIN OTHER SPECIFIED SITE	749	18
25-44	Commercial	UNS NONINF GASTROENTERIT&COLITIS	724	28
25-44	Commercial	UNSPECIFIED OTITIS MEDIA	619	0
25-44	Commercial	ACUTE BRONCHITIS	598	3
25-44	Commercial	UNSPECIFIED SINUSITIS	592	2
25-44	Commercial	UNSPEC VIRAL INF CCE & UNS SITE	586	12

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
25-44	Commercial	PAINFUL RESPIRATION	558	6
25-44	Commercial	UNSPEC D/O TEETH&SUPPORTING STRCT	526	0
25-44	Commercial	PAIN IN SOFT TISSUES OF LIMB	496	2
25-44	Commercial	UNSPECIFIED BACKACHE	494	2
25-44	Commercial	OPEN WND HND NO FNGR ALONE W/O COMP	466	0
25-44	Commercial	DIZZINESS AND GIDDINESS	462	3
25-44	Commercial	ASTHMA UNSPECIFIED W/EXACERBATION	443	32
25-44	Commercial	CELLULITIS&ABSCESS LEG EXCEPT FOOT	435	40
25-44	Commercial	STREPTOCOCCAL SORE THROAT	426	3
25-44	Commercial	PALPITATIONS	425	2
25-44	Medicaid	UNSPEC D/O TEETH&SUPPORTING STRCT	2140	0
25-44	Medicaid	LUMBAGO	1631	7
25-44	Medicaid	HEADACHE	1462	5
25-44	Medicaid	ABDOMINAL PAIN, UNSPECIFIED SITE	1248	17
25-44	Medicaid	ACUTE PHARYNGITIS	1204	3
25-44	Medicaid	UNS MIGRAINE W/O INTRACT MIGRAINE	1125	4
25-44	Medicaid	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	1087	0
25-44	Medicaid	PERIAPICAL ABSCESS WITHOUT SINUS	979	2
25-44	Medicaid	UTI SITE NOT SPECIFIED	975	10
25-44	Medicaid	AC APICAL PRDONTITIS PULPAL ORIGIN	952	0
25-44	Medicaid	DEPRESSIVE DISORDER NEC	951	40
25-44	Medicaid	LUMBAR SPRAIN AND STRAIN	943	0
25-44	Medicaid	UNSPECIFIED BACKACHE	934	0
25-44	Medicaid	ACUTE URIS OF UNSPECIFIED SITE	923	0
25-44	Medicaid	UNSPEC SITE ANKLE SPRAIN&STRAIN	896	0
25-44	Medicaid	UNSPECIFIED DENTAL CARIES	878	0
25-44	Medicaid	OTHER CHEST PAIN	857	57
25-44	Medicaid	ABDOMINAL PAIN OTHER SPECIFIED SITE	819	12
25-44	Medicaid	ANXIETY STATE, UNSPECIFIED	722	5
25-44	Medicaid	NECK SPRAIN AND STRAIN	681	1
25-44	Medicaid	UNSPECIFIED OTITIS MEDIA	676	0
25-44	Medicaid	UNSPECIFIED CHEST PAIN	669	24
25-44	Medicaid	PAIN IN SOFT TISSUES OF LIMB	635	0
25-44	Medicaid	ACUTE BRONCHITIS	620	3
25-44	Medicaid	OPEN WOUND FINGER W/O MENTION COMP	611	0

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Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
25-44	Medicaid	UNS NONINF GASTROENTERIT&COLITIS	593	18
25-44	Medicaid	UNSPECIFIED SINUSITIS	558	0
25-44	Medicaid	PAINFUL RESPIRATION	542	4
25-44	Medicaid	ASTHMA UNSPECIFIED W/EXACERBATION	539	31
25-44	Medicaid	ASTHMA, UNSPECIFIED, UNSPECIFIED	533	1
25-44	Medicare	HEADACHE	487	2
25-44	Medicare	DEPRESSIVE DISORDER NEC	465	16
25-44	Medicare	UNSPEC D/O TEETH&SUPPORTING STRCT	437	0
25-44	Medicare	UNS MIGRAINE W/O INTRACT MIGRAINE	430	1
25-44	Medicare	LUMBAGO	375	3
25-44	Medicare	ABDOMINAL PAIN, UNSPECIFIED SITE	329	5
25-44	Medicare	OTHER CHEST PAIN	280	21
25-44	Medicare	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	275	2
25-44	Medicare	UNSPECIFIED CHEST PAIN	257	9
25-44	Medicare	ANXIETY STATE, UNSPECIFIED	251	0
25-44	Medicare	UNSPECIFIED BACKACHE	240	2
25-44	Medicare	OTHER CONVULSIONS	232	14
25-44	Medicare	ACUTE PHARYNGITIS	216	0
25-44	Medicare	UTI SITE NOT SPECIFIED	206	13
25-44	Medicare	UNSPEC SITE ANKLE SPRAIN&STRAIN	203	1
25-44	Medicare	ABDOMINAL PAIN OTHER SPECIFIED SITE	202	11
25-44	Medicare	ACUTE URIS OF UNSPECIFIED SITE	188	0
25-44	Medicare	PAIN IN SOFT TISSUES OF LIMB	179	0
25-44	Medicare	PAINFUL RESPIRATION	174	6
25-44	Medicare	LUMBAR SPRAIN AND STRAIN	173	0
25-44	Medicare	AC APICAL PRDONTITIS PULPAL ORIGIN	166	0
25-44	Medicare	UNSPECIFIED DENTAL CARIES	159	0
25-44	Medicare	UNSPECIFIED OTITIS MEDIA	155	0
25-44	Medicare	PERIAPICAL ABSCESS WITHOUT SINUS	155	1
25-44	Medicare	OPEN WOUND FINGER W/O MENTION COMP	154	0
25-44	Medicare	NONDPND ALCOHL ABS UNS DRUNKENNESS	137	1
25-44	Medicare	ACUTE BRONCHITIS	137	1
25-44	Medicare	ASTHMA UNSPECIFIED W/EXACERBATION	132	12
25-44	Medicare	UNS NONINF GASTROENTERIT&COLITIS	126	13
25-44	Medicare	BIPOLAR DISORDER UNSPECIFIED	124	7

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
25-44	Other	OPEN WOUND FINGER W/O MENTION COMP	898	0
25-44	Other	LUMBAR SPRAIN AND STRAIN	361	0
25-44	Other	UNSPEC SITE ANKLE SPRAIN&STRAIN	305	0
25-44	Other	OPEN WND HND NO FNGR ALONE W/O COMP	251	0
25-44	Other	LUMBAGO	239	0
25-44	Other	NECK SPRAIN AND STRAIN	174	0
25-44	Other	SUPERFICIAL INJURY OF CORNEA	161	0
25-44	Other	SPRAIN&STRAIN UNS SITE SHLDR&UP ARM	143	0
25-44	Other	CONTUSION OF HAND	133	0
25-44	Other	SPRAIN&STRAIN UNSPEC SITE WRIST	125	0
25-44	Other	SPRAIN&STRAIN UNSPEC SITE KNEE&LEG	124	0
25-44	Other	THORACIC SPRAIN AND STRAIN	107	0
25-44	Other	FOREIGN BODY IN CORNEA	107	0
25-44	Other	UNSPECIFIED BACKACHE	103	0
25-44	Other	CONTUS FACE SCALP&NECK EXCEPT EYE	103	0
25-44	Other	CONTUSION OF FINGER	101	0
25-44	Other	PAIN IN SOFT TISSUES OF LIMB	91	0
25-44	Other	CONTUSION OF KNEE	88	0
25-44	Other	CONTUSION OF CHEST WALL	85	0
25-44	Other	HEADACHE	82	0
25-44	Other	OPEN WOUND FOREARM W/O MENTION COMP	80	1
25-44	Other	FB UNSPEC SITE EXTERNAL EYE	80	0
25-44	Other	ATTENTION TO DRESSINGS AND SUTURES	79	0
25-44	Other	OTHER CHEST PAIN	73	2
25-44	Other	OPEN WOUND SCLP W/O MENTION COMP	73	0
25-44	Other	CRUSHING INJURY OF FINGER	72	1
25-44	Other	CONTUSION OF FOOT	71	0
25-44	Other	PAIN IN JOINT, SHOULDER REGION	67	1
25-44	Other	SPRAIN&STRAIN UNSPECIFIED SITE BACK	65	0
25-44	Other	PAIN IN JOINT, LOWER LEG	64	1
25-44	Uninsured	UNSPEC D/O TEETH&SUPPORTING STRCT	885	0
25-44	Uninsured	PERIAPICAL ABSCESS WITHOUT SINUS	598	4
25-44	Uninsured	LUMBAGO	524	0
25-44	Uninsured	ACUTE PHARYNGITIS	518	2

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
25-44	Uninsured	AC APICAL PRDONTITIS PULPAL ORIGIN	501	1
25-44	Uninsured	UNSPECIFIED DENTAL CARIES	448	0
25-44	Uninsured	LUMBAR SPRAIN AND STRAIN	425	0
25-44	Uninsured	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	424	0
25-44	Uninsured	HEADACHE	398	3
25-44	Uninsured	OPEN WOUND FINGER W/O MENTION COMP	382	0
25-44	Uninsured	DEPRESSIVE DISORDER NEC	355	15
25-44	Uninsured	ABDOMINAL PAIN, UNSPECIFIED SITE	349	1
25-44	Uninsured	UNSPEC SITE ANKLE SPRAIN&STRAIN	334	0
25-44	Uninsured	OTHER CHEST PAIN	316	19
25-44	Uninsured	NECK SPRAIN AND STRAIN	304	0
25-44	Uninsured	ACUTE BRONCHITIS	303	0
25-44	Uninsured	UTI SITE NOT SPECIFIED	281	1
25-44	Uninsured	ACUTE URIS OF UNSPECIFIED SITE	272	0
25-44	Uninsured	ANXIETY STATE, UNSPECIFIED	265	0
25-44	Uninsured	UNSPECIFIED CHEST PAIN	265	6
25-44	Uninsured	UNSPECIFIED OTITIS MEDIA	263	0
25-44	Uninsured	UNSPECIFIED BACKACHE	261	0
25-44	Uninsured	NONDPND ALCOHL ABS UNS DRUNKENNESS	255	3
25-44	Uninsured	ASTHMA UNSPECIFIED W/EXACERBATION	253	10
25-44	Uninsured	ABDOMINAL PAIN OTHER SPECIFIED SITE	249	4
25-44	Uninsured	PAINFUL RESPIRATION	236	2
25-44	Uninsured	OPEN WND HND NO FNGR ALONE W/O COMP	210	0
25-44	Uninsured	UNS NONINF GASTROENTERIT&COLITIS	201	2
25-44	Uninsured	UNSPEC VIRAL INF CCE & UNS SITE	196	2
25-44	Uninsured	CELLULITIS&ABSCESS LEG EXCEPT FOOT	194	12
25-44	Total	UNSPEC D/O TEETH&SUPPORTING STRCT	4011	0
25-44	Total	HEADACHE	3670	20
25-44	Total	LUMBAGO	3656	17
25-44	Total	ACUTE PHARYNGITIS	3580	5
25-44	Total	OPEN WOUND FINGER W/O MENTION COMP	3263	0
25-44	Total	ABDOMINAL PAIN, UNSPECIFIED SITE	3082	32
25-44	Total	OTHER CHEST PAIN	2887	186
25-44	Total	UNSPEC SITE ANKLE SPRAIN&STRAIN	2769	1
25-44	Total	BRONCHITIS NOT SPEC AS ACUT/CHRONIC	2712	5

2010 Maine Hospital Emergency Department Use Statewide for Selected Age Groups Requested by Payer: Top 30 Outpatient Emergency Department Volume

For this report the top 30 volume diagnoses in total and the top 30 diagnosis within each payer type were determined.

Age Group	Payer	Diagnosis Description	Outpatient Emergency Department Visits	Emergency Department Visits Resulting in Inpatient Hospitalization
25-44	Total	LUMBAR SPRAIN AND STRAIN	2698	2
25-44	Total	UNS MIGRAINE W/O INTRACT MIGRAINE	2641	15
25-44	Total	UTI SITE NOT SPECIFIED	2422	34
25-44	Total	NECK SPRAIN AND STRAIN	2392	8
25-44	Total	UNSPECIFIED CHEST PAIN	2260	72
25-44	Total	ACUTE URIS OF UNSPECIFIED SITE	2204	0
25-44	Total	DEPRESSIVE DISORDER NEC	2194	93
25-44	Total	PERIAPICAL ABSCESS WITHOUT SINUS	2096	8
25-44	Total	ABDOMINAL PAIN OTHER SPECIFIED SITE	2069	45
25-44	Total	UNSPECIFIED BACKACHE	2032	4
25-44	Total	AC APICAL PRDONTITIS PULPAL ORIGIN	1954	1
25-44	Total	UNSPECIFIED OTITIS MEDIA	1741	0
25-44	Total	ACUTE BRONCHITIS	1691	7
25-44	Total	UNSPECIFIED DENTAL CARIES	1690	0
25-44	Total	UNS NONINF GASTROENTERIT&COLITIS	1686	64
25-44	Total	ANXIETY STATE, UNSPECIFIED	1611	8
25-44	Total	PAIN IN SOFT TISSUES OF LIMB	1595	3
25-44	Total	PAINFUL RESPIRATION	1555	18
25-44	Total	UNSPECIFIED SINUSITIS	1450	2
25-44	Total	UNSPEC VIRAL INF CCE & UNS SITE	1415	18
25-44	Total	ASTHMA UNSPECIFIED W/EXACERBATION	1389	86

APPENDIX 3.

Council on Health System Development
ED Use Workgroup

APPENDIX 3.

EMERGENCY DEPT. USE WORKGROUP

Trish Riley, Chair	Director, Governor's Office of Health Policy
Tim Beals	Executive Director, Delta Ambulance
Art Blank	President/CEO, Mt. Desert Island Hospital, Member ACHSD
Jay Bradshaw	Public Safety Manager, Emergency Medical Services
Rev. Bob Carlson	President, Penobscot Community Health Care
Carol Carothers	Executive Director, NAMI-Maine
Dr. Ken Christian	Chief of ED, Maine Coast Memorial Hospital
Dr. Josh Cutler	Director, Maine Quality Forum, Member ACHSD
Bob Downs	Director of Operations and Development, Harvard Pilgrim Health Care
Geoff Green	Deputy Commissioner, DHHS
Chris Hastedt	Public Policy Advisor, Maine Equal Justice Partners
Dr. Scott Kemmerer	Medical Director, Emergency Dept., MaineGeneral Medical Center
Dr. Maroulla Gleaton	Ophthalmologist, Member ACHSD
Anne Graham	Maine Neurology, Member ACHSD
Katie Fullam Harris	Director, Government Relations, Anthem Blue Cross Blue Shield
Tony Marple	Director, OMS, DHHS
Carol Minnis	ER Nurse, Waterville Campus of MGMC
Deb Nichols	Schaller Anderson
Dr. Brian Rines	Psychologist, Chair ACHSD
Dr. Erik Steele	Chief Medical Officer, Eastern Maine Healthcare Systems
Ron Welch	Director, OAMHS, DHHS
Dennise Whitley	Director of Advocacy-Maine, American Heart Association
Richard Willett	CEO, Redington-Fairview General Hospital
David Winslow	Vice President of Financial Policy, Maine Hospital Association
Dr. Wendy Wolf	President and CEO, Maine Health Access Foundation