

# **Review of the Evidence on the Use of the Emergency Department by Medicaid Patients and the Evolving Role of Emergency Medicine Physicians**

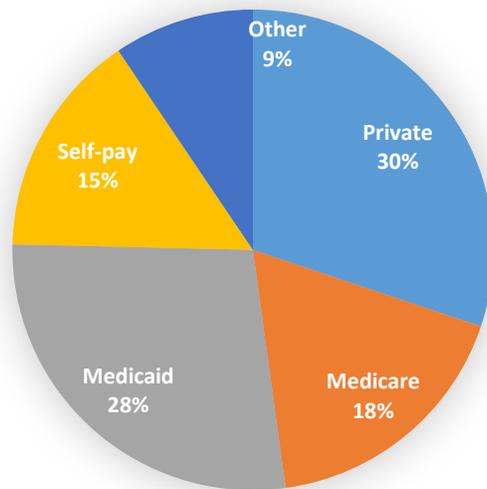
**Prepared for Emergency Medicine Action Fund by Health Policy Alternatives, Inc.**

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## I. Background

As a major purchaser of health care services, Medicaid plays a substantial role in financing care provided in the emergency department (ED). Nationally, Medicaid covered about 16 percent of the population in 2010,<sup>1</sup> and was the primary expected source of payment for 28 percent of all ED visits that year, accounting for about 36 million visits. The number of ED Medicaid visits is expected to rise to about 47 million by 2016.<sup>2</sup> Together, private insurance and Medicare were the primary expected source of payment for about half of ED visits in 2010 (see figure 1).

**Figure 1: Primary Expected Source of Payment for ED Visits, 2010**



Source: HPA analysis of 2010 National Hospital Ambulatory Medicare Care Survey.

Note: Other includes unknown payer, no charge, and workers compensation.

Use of the ED by Medicaid patients may be driven by a confluence of factors, which has implications for the role and responsibilities of emergency medicine. Physicians delivering care in EDs provide a support role for primary care practices by performing complex diagnostic workups, and handling overflow, after-hours use, and weekend care. Primary care practices often refer their patients to EDs to evaluate complex patients with potentially serious problems, rather than managing these patients themselves.<sup>3</sup>

To date, however, Medicaid policy does not appear to reflect the evolving role of emergency physicians in the continuum of care. There is a common perception among policymakers that ED use is too high for the Medicaid population, and that many ED visits should be shifted to another outpatient setting. In response, some states have implemented or increased ED copayments,

<sup>1</sup> Census Bureau. *Income, Poverty and Health Insurance Coverage in the United States: 2010*. September 2011.

<sup>2</sup> HPA analysis of 2010 NHAMCS and Dobson DaVanzo & Associates. *Baseline and Projected Cost of Medicaid Parity for Emergency Department Evaluation and Management Services*. Final Report. December 12, 2014.

<sup>3</sup> K. Morganti et. al., *Research Report. The Evolving Role of Emergency Departments in the United States*. RAND. 2013. Available at [http://www.rand.org/pubs/research\\_reports/RR280.html](http://www.rand.org/pubs/research_reports/RR280.html).

which are permitted for those visits determined after screening not to be an emergency medical condition. In some cases, states are seeking waivers to set these copayments at a level above the \$8 upper bound established under federal regulation.<sup>4</sup> Such policies can be challenging for hospitals to implement (they must inform the individual at the time that a copay will be charged and give them the name and address of an available alternate provider) and raise concerns that low-income patients with serious medical conditions will be discouraged from seeking needed care.<sup>5</sup>

Notwithstanding the training in primary care that a board certified emergency medicine physician possesses, only a limited number of physicians with board training in either family, internal, or pediatric medicine, who practice in the ED were recognized in the Affordable Care Act provision which boosted payments for Medicaid primary care services as a means of attracting greater physician participation in Medicaid. Using federal dollars only, the provision established Medicare payment rates as a floor for state Medicaid payment rates for certain primary care services when delivered by providers with certain credentials.<sup>6</sup> The provision was in place for services provided during 2013 and 2014. Although the federal provision expired, a handful of states (6 by one count<sup>7</sup>) have elected to continue higher primary care payments in 2015 under the normal federal-state matching rates. The President's budget proposals for FY 2016 would extend the Medicare floor provision through December 2016 and expand it to include some additional providers. However, the proposal would exclude ED codes "to better target primary care."

This paper summarizes existing research on a number of policy topics relevant to the evolving role of emergency physicians in the context of Medicaid, the nature of ED visits by Medicaid patients, the health conditions of occasional versus frequent ED Medicaid patients, and how Medicaid expansion may influence ED use. It is based on 1) a review of the peer-reviewed literature and gray literature (e.g., research reports and government reports) focusing on the last 5 years and 2) an analysis of ED use by Medicaid patients using the 2010 National Hospital Ambulatory Medical Care Survey (NHAMCS).

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<sup>4</sup> Kaiser Family Foundation, *Medicaid in an Era of Health & Delivery System Reform: Results from a 50-State Medicaid Budget Survey for State Fiscal Years 2014 and 2015*, October 2014.

<sup>5</sup> Worth noting is that states increasingly rely on capitated Medicaid managed care organizations to deliver services to most beneficiaries, which are not required to follow the state's cost sharing schedule, and may have other approaches to managing emergency department use. (Nationally, about half of all beneficiaries were enrolled in a comprehensive managed care plan in FY 2011. Medicare and CHIP Access and Payment Commission (MACPAC), *MACSTATS*, Table 14, June 2014. <http://www.macpac.gov/macstats>)

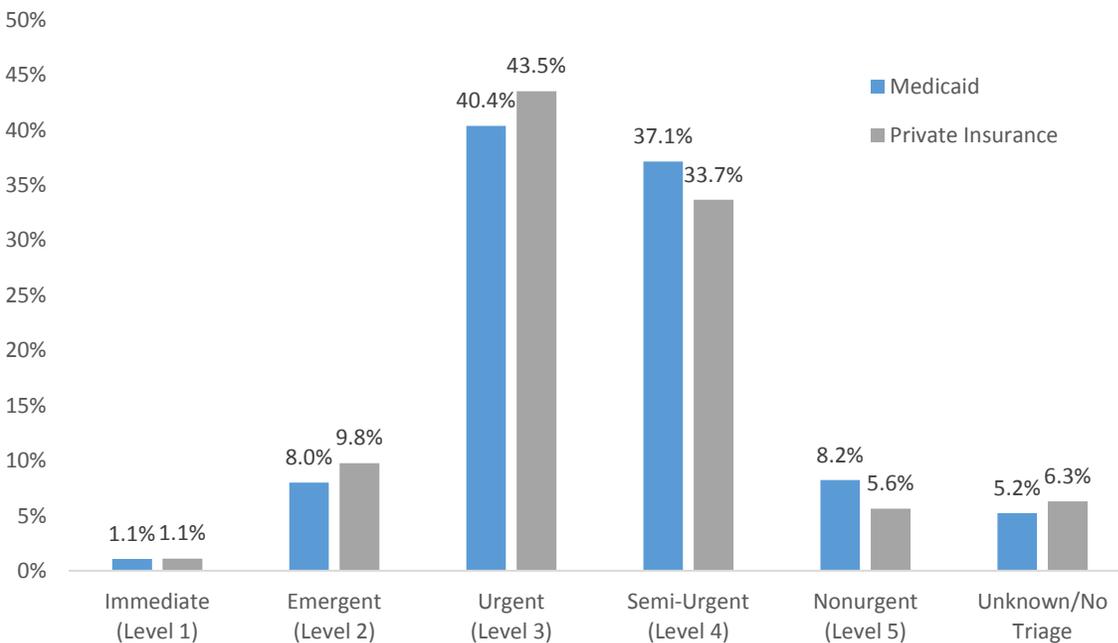
<sup>6</sup> For more detail see federal regulations and 77 FR 66670 and corrections 77 FR 74381. Further guidance available at <http://www.medicaid.gov/AffordableCareAct/Provisions/Provider-Payments.html>.

<sup>7</sup> <http://kaiserhealthnews.org/news/6-states-extending-medicaid-pay-raise-next-year-to-primary-care-doctors/>

## II. Emergency Physicians Provide Care to Medicaid Patients That is Primarily for Urgent and Serious Medical Conditions, Not Just Routine Care

There is a common perception among the public and policymakers that Medicaid enrollees predominately use EDs for routine care of minor ailments that could have been more appropriately cared for in a less expensive outpatient care setting.<sup>8</sup> The facts support a more complex picture of ED use by Medicaid enrollees. According to 2010 data available from the NHAMCS, nearly a majority of ED visits by nonelderly Medicaid patients are for symptoms suggesting urgent or more serious medical conditions, as determined by a triage nurse in the ED.<sup>9</sup> Routine or nonurgent visits represent only a small percentage of ED visits for Medicaid patients—8 percent of ED visits paid by Medicaid and 6 percent of ED visits paid by private insurance for nonelderly patients (aged 0 to 64 years of age) nationally in 2010. On the other hand, about half of ED visits by Medicaid patients and slightly more than half of ED visits by private insurance patients were categorized as immediate, emergent, and urgent (see figure 2).

**Figure 2: Share of Emergency Department Visits by Triage Acuity and Payer, 2010**



Source: HPA analysis of 2010 National Hospital Ambulatory Medicare Care Survey (age 0-64).

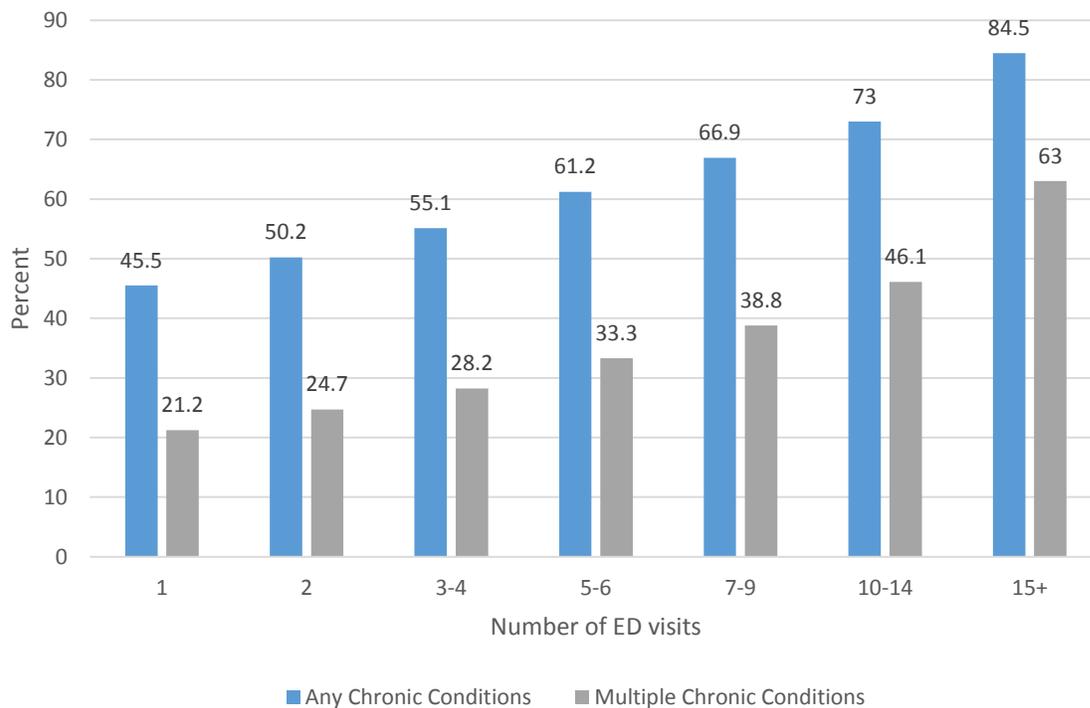
<sup>8</sup> Sommers, A., E. Boukus, and E. Carrier. *Dispelling Myths about Emergency Department Use: Majority of Medicaid Visits Are for Urgent or More Serious Symptoms*. Center for Studying Health System Change. Research Brief. No. 23, July 2012.

<sup>9</sup> This is consistent with findings from the Sommers et. al. 2012 research brief by the Center for Studying Health System Change that used 2008 NHAMC data.

### III. Medicaid Patients with ED Visits Often Have Multiple Conditions and Higher Levels of Chronic Illness

In studies examining ED use, there is often a distinction made between occasional ED users and frequent users. While there is no firm definition, most studies classify “frequent” ED users as those having three or more ED visits in a year.<sup>10</sup> Frequent users have been found to have multiple chronic conditions, as well as high use of other primary and specialty care services outside of the ED. Research on the Medicaid population’s use of the ED have also found that ED users have a substantial burden of disease. In a 2014 study of adult Medicaid patients in NY City, authors examined ED use three years after the patient’s first ED visit in 2007. Level of chronic illness among Medicaid ED users were high among this population ranging from 45.5 percent for users with one ED visit to 84.5 percent for users with 15 or more visits, referred to as “ultra-high” ED users (see figure 3). Similar patterns were found for ED users with multiple chronic conditions.

**Figure 3: Share of Emergency Department Visits by Triage Acuity, 2010**



**Source:** Based on data from John Billings and Maria C. Raven, “Dispelling an Urban Legend: Frequent Emergency Department Users Have Substantial Burden of Disease,” *Health Affairs*. 2013 Dec; 32(12):2099-2108. doi: 10.1377/hlthaff.2012.1276.

<sup>10</sup>A 2014 study classified frequent ED users into multiple categories: three or more ED visits, five or more, eight or more, and ten or more. See John Billings and Maria C. Raven, “Dispelling an Urban Legend: Frequent Emergency Department Users Have Substantial Burden of Disease,” *Health Affairs*. 2013 Dec;32(12):2099-2108. doi: 10.1377/hlthaff.2012.1276.

Frequent use of the ED by Medicaid patients, particularly the very high users, may be a direct result of complications from a disability or chronic condition, and could also be exacerbated by other factors such as barriers to care, serious mental illness, or community physician referral to on EDs for follow-up care.<sup>11</sup> Research using nationally representative data on ED use from 2008 (from the NHAMC survey) showed that Medicaid patients aged 21 to 64 with ED visits were more likely to have a condition in more than one major diagnostic category – for example, diabetes and congestive heart failure – compared to privately insured ED users (27.1 percent of visits compared with 19.5 percent, respectively).

#### **IV. Reliance on ED for primary care will likely increase with Medicaid expansion at least in the short-term**

There is also a common perception that expansion of Medicaid will lead to lower ED use. The argument among some policymakers is that expansion of Medicaid will increase primary care access and improve overall health of these beneficiaries. This would, in turn, lessen the need for these Medicaid beneficiaries to use the ED and reduce overall health care costs. The evidence is mixed, and recent findings suggest, in fact, that the reliance on ED after Medicaid expansion will increase, rather than decrease. A recent analysis of the overall effect of the Affordable Care Act on the use of health care services projects that the ACA is expected to result in an increase in ED visits by 1.1 million, with those gaining Medicaid coverage accounting for over two-thirds of those visits.<sup>12</sup>

Findings from an evaluation of Oregon's experience<sup>13</sup> showed that Medicaid expansion increased the likelihood that an ED visit would occur and increased the average number of ED visits by Medicaid patients. Specifically, the authors found that the probability of having a visit increased by 7.0 percentage points; 41.5 percent of individuals with Medicaid had an ED visit during the 18 month study period compared with 34.5 percent of individuals in the control group. The number of ED visits also increased for those with Medicaid by 0.41 visits or a 41 percent increase relative to the control group. The increase in ED use was a consistent pattern across the subpopulations that the authors examined. In addition, the increase in ED use among this population occurred despite improved self-reported access to a usual place of care that was not an ED within the first year. This Medicaid expansion is unique because Oregon used a lottery system to select 30,000 names out of 90,000 on a waiting list to determine who would be selected to enroll in Medicaid. This provided a rare research opportunity to study the effects of

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<sup>11</sup> Medicaid and CHIP Payment and Access Commission. *Revisiting Emergency Department Use in Medicaid*. July 2014. Available at <http://www.macpac.gov/publications>.

<sup>12</sup> The authors conclude that the increase in services attributed to ACA expansion are rather modest overall and that the current delivery system should be able to absorb these increases. See S. Glied and S. Ma. *How will the Affordable Care Act Affect the Use of Health Care Services?* The Commonwealth Fund. Issue Brief. February 2015, accessed at: <http://www.commonwealthfund.org/publications/issue-briefs/2015/feb/how-will-aca-affect-use-health-services>.

<sup>13</sup> The first two evaluations of the Oregon Medicaid expansion did not find increased ED use, but relied on recall of used by enrollees responding to surveys on the timing and site of care for visits. The evaluation by Taubman and colleagues (2014) matched-up survey data with administrative data from the EDs to more accurately identify the site of service and the timing of the events.

Medicaid expansion using a randomized control design comparing utilization to those selected to enroll in Medicaid with those that were not chosen through the lottery (control group).

In contrast, an analysis of 12 Medicaid expansions (Ndumele et al., 2014) using survey data from the National Health Interview Survey found no significant changes in perceived access to care or ED use among Medicaid enrollees in these states.<sup>14</sup> Differences in results among the study on the Oregon Medicaid expansion and the Ndumele et. al. 2014 study could be attributed, in part, to self-reported use of the ED in survey data. The Taubman et.al, 2014 study on the Oregon Medicaid expansion relied on administrative data from EDs to determine ED visits— earlier results using survey data and self-reported use from the Oregon Medicaid expansion found no change in ED use before and after the Medicaid expansion.<sup>15</sup> In addition, the Oregon study examined use of newly eligible users whereas the Ndumele study examined the impact of Medicaid expansion on all enrollees.<sup>16</sup>

There is also evidence that access to primary and specialty care is not currently adequate in Medicaid and this problem could be exacerbated by the eligibility expansion. A recent report by the HHS Office of Inspector General (OIG) evaluated the adequacy of access to care for Medicaid enrollees in managed care.<sup>17</sup> (For most beneficiaries, states provide some or all Medicaid services through managed care.) The study found that slightly more than half of providers listed by the Medicaid managed care plans could not offer appointments to enrollees. Wait times for appointments also varied widely. The median wait time was 2 weeks, but over one-quarter of providers had wait times of more than a month for an appointment, and 10 percent of providers had wait times longer than 2 months (see figure 4).

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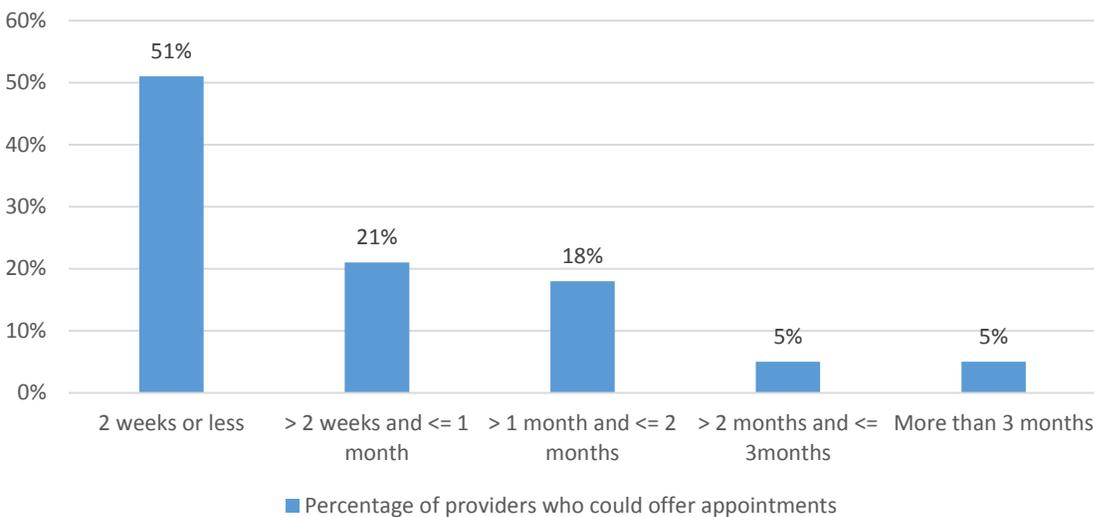
<sup>14</sup> The study period was January 1, 1999 to December 31, 2011. The authors identified 11 states that expanded their eligibility (referred to as case states) and matched each case state to 1 or more control states that made no changes to the eligibility criteria for their Medicaid programs. See Ndumele et. al., “Effect of Expansions in State Medicaid Eligibility on Access to Care and the Use of Emergency Department Services for Adult Medicaid Enrollees,” *JAMA Intern Med.* 2014; 174(6):920-926.

<sup>15</sup> Taubman et. al., “Medicaid Increases Emergency-Department Use: Evidence from Oregon’s Health Insurance Experiment,” *Science.* January 17, 2014. Vol. 343: pages 263-268.

<sup>16</sup> The Ndumele et. al. 2014 authors conducted an additional analysis using income data as a proxy to determine newly eligible versus continuously enrolled beneficiaries and found no statistically significant differences in use, though those determined to be newly eligible did report slightly poorer access to care.

<sup>17</sup> The study involved calls to 1,800 randomly selected providers and specialist to assess availability and timeliness of appointments for enrollees. Callers were attempting to determine the earliest routine, non-urgent appointment available for new patients for a particular provider at a given location. See OIG. *Access to Care: Provider Availability in Medicaid Managed Care*, December 2014. OEI-02-13-00670.

**Figure 4: Wait Times for Routine Appointments for Medicaid Enrollees**



Source: OIG Assessment of provider availability, 2014. Replicated figure from OIG. *Access to Care: Provider Availability in Medicaid Managed Care*, December 2014. OEI-02-13-00670.

## V. Evaluation of Potential Medicaid Data Sources

There are several national databases that researchers and policy analysts can use to generate national estimates of ED visits by payer type including NHAMCS, the HCUP Nationwide Emergency Department Sample (NEDS), and the Medical Expenditure Panel Survey (MEPS) (See Appendix A.) These datasets provide useful aggregate information about the number and nature of ED visits, and can also provide reliable estimates of ED use by subpopulations, including Medicaid patients. Using these data, researchers and policymakers can determine, for example, the number of ED visits, the demographics characteristics of frequent ED users and the type of chronic conditions (i.e., diabetes, congestive heart failure) being treated in this setting. These datasets, however, are not designed for use in longitudinal studies that would, for example, track an individual’s ED use over time, or determine whether an ED doctor is the usual source of primary care. In addition, reliance on self-reported use of the ED in national surveys may underestimate the number of ED visits, particularly for the most frequent users. When matched with claims data, for example, the Ndumele et. al. 2014 study on Oregon Medicaid expansion found that ED use was much higher than had been self-reported using survey data.

Tracking a Medicaid beneficiary’s use of health care services and the type of provider seen requires the use of claims data. Medicaid studies typically have to focus on a particular state(s), or a Medicaid managed care plan as no national fee-for-service Medicaid claims or managed care encounter datasets exist. State-level claims data have the potential to track a patient’s use of ED services over time as well as their typical source of care. Using claims/encounter data would allow researchers to examine more detailed questions, such as the following:

- To what extent are certain beneficiaries receiving the plurality of primary care services from Emergency Medicine physicians in the ED?

- Under what circumstances does this occur? What are the characteristics of these patients? What are characteristics of the health care market or regions?
- What types of E&M services are these beneficiaries receiving? In what types of settings (e.g., ED, hospital outpatient clinics)?

Unfortunately, Medicaid claims data are not readily available for research, and very few published studies are cited using such data. Compiling data from one state can be difficult given that most Medicaid enrollees are enrolled in Medicaid managed care and compiling their data would require working with multiple managed care organizations. Using state-level claims data, however, make it difficult to generalize findings to other states given differences in the population and the nature of each states' Medicaid program.<sup>18</sup>

Separate from data on beneficiary use of the ED, limited data on Medicaid physician fees are available. The Urban Institute (UI) conducted a state survey of Medicaid fee-for-service physician fees in 2014, and the result is a data base of fees for 27 procedures for all states (except Tennessee) and the District of Columbia. (The survey has been conducted periodically since 1993.) UI has published analysis of how these Medicaid fees compare with Medicare rates generally and in particular analyzed the implication of the expiration of the ACA primary care increase on Medicaid fees.<sup>19</sup> Emergency department visits (99283) is among the 27 procedure codes studied, although no state-by-state results were published on it. A wide range in fees is shown for this code across states ranging from \$24 to \$108, with a \$43 mean fee.

## **VI. Concluding Observations**

Evidence from the literature challenges the perception of unnecessary use of the ED by Medicaid beneficiaries. Similar to persons with private pay insurance, the vast majority of ED use by Medicaid patients are for symptoms suggesting urgent or more serious medical conditions. Medicaid patients are also more likely to have multiple chronic conditions that require timely access to primary or specialty care. Given the lack of timely access for primary and specialty care demonstrated in recent reports, Medicaid patients may be even more reliant than other insured individuals on care by emergency medicine physicians in the ED.

Ideally, Medicaid patients would have access to a primary care providers in a timely manner, their care would be well-coordinated, and thus Medicaid patients would only seek out ED use for urgent care and rely on less expensive settings for treatment of most conditions. In reality, there is strong evidence that Medicaid access to primary care and specialty care is not timely, and the lack of coordinated care for this population continues to be the norm, rather than the exception. While data availability limits research on Medicaid claims, to the extent additional state-specific research can be encouraged it may shed more light on the role of emergency medicine in providing care for the Medicaid population.

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<sup>18</sup> Billings and Raven 2013.

<sup>19</sup> Steven Zuckerman and others. *Reversing the Medicaid Fee Bump: How Much Could Medicaid Physician Fees for Primary Care Fall in 2015?* Urban Institute Health Policy Center Brief, December 2014.

## Appendix A: Comparison of Data Sources on Medicaid Emergency Department Use

Data Source Name	Description	Years Available	Strengths	Limitations	Notes
National Hospital Ambulatory Medical Care Survey (NHAMCS)	NHAMCS is an annual national representative sample survey for visits to EDs, outpatient departments, and ambulatory surgical centers (ASCs) of nonfederal short-stay and general hospitals (starting in 2009), as well as freestanding ASCs (starting in 2010).	1992-2010	Nationally representative data set	All measures were self-reported by patients.  Cannot track individual patients and their use of EDs over time.	Website: <a href="http://www.cdc.gov/nchs/ahcd/ahcd_questionnaires.htm">http://www.cdc.gov/nchs/ahcd/ahcd_questionnaires.htm</a>  Recent article/research study using data:  A. Sommers, Boukus E, and Carrier E. <i>Dispelling Myths about Emergency Department Use: Majority of Medicaid Visits are for Urgent or More Serious Symptoms</i> . Center for Studying Health System Change, No. 23, July 2012
HCUP Nationwide Emergency Department Sample (NEDS)	HCUP is the largest all-payer ED database in the United States that can yield national estimates of hospital-based ED visits. Unweighted (30 million discharges, weighted, 130 million ED visits).	2006-2012	Includes data from 950 hospitals located in 20 states. Demographic data includes hospital and patient characteristics, geographic area, and the nature of ED visits.	Dataset is extremely large > 10 GB.  Cannot track individual patients on their ED use over time.	Website: <a href="http://www.hcup-us.ahrq.gov/nedsoverview.jsp">http://www.hcup-us.ahrq.gov/nedsoverview.jsp</a>

<p>Medical Expenditure Panel Survey (MEPS), the household component</p>	<p>The household component of MEPS is a nationally representative survey of non-institutionalized US civilians. MEPS validates survey data using payment receipts and insurance claims data.</p>	<p>1996-2013</p>	<p>Nationally representative data set</p> <p>Panel data set that contains two years of data for each panel.</p> <p>Facilitates research between individual characteristics and health care utilization</p>	<p>Information on conditions is household reported and not verified by clinical records.</p> <p>MEPS data is reported by one household respondent for all household members.</p> <p>Cannot track individual respondents over time.</p>	<p>Website: <a href="http://meps.ahrq.gov/mepsweb/data_stats/data_overview.jsp">http://meps.ahrq.gov/mepsweb/data_stats/data_overview.jsp</a></p> <p>Recent article using data:</p> <p>M. Siddiqui, E. Roberts, and C. Pollack. "The Effect of Emergency Department Copayments for Medicaid Beneficiaries Following the Deficit Reduction Act of 2005," JAMA Internal Medicine, published online, January 26, 2015.</p>
<p>Health Tracking Household Survey of the Center for Studying Health System Change (formerly known as the Community Tracking Household Survey)</p>	<p>Captures a nationally representative sample of the civilian, noninstitutionalized population designed to track changes in health care access, utilization, coverage, costs, and other experiences of the health care system. Random-digit-dialing telephone survey of US households. 2010 survey includes a cell phone survey. Most recent survey (sixth round) in 2010, includes information on 9,200 families and roughly 17,000 individuals. Prior rounds of the survey were conducted</p>	<p>Six rounds of the survey conducted between 1996 and 2010.</p>	<p>Nationally representative data set</p>	<p>Cross-sectional data, cannot establish temporal sequence of events or follow particular patients over time.</p> <p>All measures were self-reported by patients.</p> <p>Response was relatively low compared to those of other national household surveys.</p>	<p>Website: <a href="http://hschange.com/index.cgi?data=02">http://hschange.com/index.cgi?data=02</a></p>

	between 1996 and 2007.			The response rate was 45 percent for the landline sample and 29 percent for the cell phone sample.	
Other Sources: State Medicaid databases, Medicaid claims from providers, hospital database	Other sources of data include Medicaid fee-for-service claims and managed care encounter records	Very difficult to obtain: on a case-by-case basis	Potential to link detailed use of the ED over time and by provider type.	Limited demographic information on claims data.  Difficult to generalize information to other state Medicaid programs	Recent article using Medicaid claims data:  John Billings and Maria C. Raven. "Dispelling An Urban Legend: Frequent Emergency Department Users Have Substantial Burden of Disease," <i>Health Affairs</i> , 32, no. 12 (2013): 2099-2108.

## Appendix B: References

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