



MAC *facts*

Key Findings on Medicaid and CHIP

July 2014

Revisiting Emergency Department Use in Medicaid

Overview

Medicaid enrollees' emergency department (ED) use accounts for just 4 percent of total Medicaid spending, but because Medicaid enrollees use the ED more frequently than both privately insured and uninsured persons, state Medicaid programs monitor ED use closely (MACPAC 2014).¹ The ED is an expensive place to treat medical problems because it maintains 24-hour staff and resource availability and the hospital settings in which most EDs are based have both high overhead and fixed costs. Thus, payers and health plans have long sought to keep costs down by educating patients about appropriate use of the ED and providing timely access to care in other settings.

Higher ED use among Medicaid enrollees is explained mostly by the higher rates and more severe cases of chronic disease and disability they experience relative to those who are privately insured and uninsured (MACPAC 2012a, 2012b, Mortensen and Song 2008). High ED use also can be a sign of poor access to primary, specialty, dental, and outpatient mental health care in other settings. A recent study of Oregon's 2008 Medicaid expansion to low-income adults reported a rise in ED use among newly insured Medicaid enrollees, fueling concerns that the Medicaid expansion authorized by the Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) could lead to a surge in ED use, increasing program costs and overcrowding of EDs (Taubman et al. 2014).

This issue brief provides a fact check of commonly held beliefs about ED use in Medicaid. In some cases, common beliefs are supported by the evidence, and in others, they reflect only part of the story. In any case, we seek to provide a more balanced picture of ED use in Medicaid informed by the latest research. To provide further context for policymakers, we review evaluations of recent Medicaid expansions and summarize a MACPAC review of Medicaid program and safety-net providers' efforts to curb ED use.

Revisiting Common Beliefs about ED Visits

Belief: *Much of the ED use among Medicaid enrollees is unnecessary.*

Fact check: **False.**

The majority of ED visits by non-elderly Medicaid patients are for urgent symptoms and serious medical problems that require prompt medical attention (Sommers et al. 2012). Non-urgent visits account for just 10 percent of all Medicaid-covered ED visits for non-elderly patients, a proportion comparable to that of privately insured patients (Garcia et al. 2010).² A review of all studies of non-emergency ED use published between 1990 and 2010 did not find

a consistent association between Medicaid and disproportionate use of the ED for non-emergency conditions (Uscher-Pines et al. 2013).

The notion that most ED use is inappropriate may be fueled by studies that cite large percentages of ED visits paid for by Medicaid and private insurance as avoidable or preventable (Truven 2013, Weinick et al. 2010). These classifications, however, do not capture the experience of care in real time. Health problems classified in research as avoidable may in fact be urgent in nature and require prompt medical attention from a physician. Some problems, such as chest pain in a 50-year old or an infant's fever and rash, carry high risks for patients and are best evaluated in an ED. This is true even if—after a physician's evaluation and some rapid testing—the vast majority of cases are resolved. A recent study found it nearly impossible to identify prospectively, based on their presenting complaints, those patients who will not need emergency care at the ED (Raven et al. 2013).

Finally, even ED visits that ultimately are determined to be non-urgent can require a physician's assessment, and an ED visit cannot be avoided if the patient has no alternative place to seek care in a timely manner. In 2012, about one in four adult Medicaid enrollees who reported a recent visit to the ED went there because of difficulty accessing another provider, not because of a serious health problem (MACPAC 2014).³

Belief: *Medicaid patients' ED use is increasing.*

Fact check: **Not clear.**

The evidence on this point is conflicting. While patient-reported data show no change in ED use among adult Medicaid enrollees and recent declines for children, a national sample from hospital administrative data shows a sharp increase for visit rates among adults (NCHS 2013, Tang et al. 2010). Reports of an increase in ED use rely primarily on a study of visit-level data from the National Hospital Ambulatory Care Survey (NHAMCS) that found a sharp increase in ED utilization rates between 1997 and 2007 for adults over age 18. The study attributed the increase almost entirely to visits that indicated Medicaid as the expected source of payment (Tang et al. 2010). These data are a problematic source for estimating trends by payer, however, because of changes in the survey's payer coding and other limitations of the payment variable.⁴

According to the National Health Interview Survey (NHIS), the percentage of non-institutionalized individuals in the United States who visited the ED during the past 12 months remained stable over the period 2001 to 2012. There was no significant growth in the percentage of adults age 18 to 64 visiting the ED one or more times or visiting two or more times (NCHS 2013). Of non-elderly adults reporting Medicaid at the time of interview, 42.2 percent in 2000 reported making one or more ED visits within the past 12 months, compared to 39.7 percent in 2012, not a statistically significant change (NCHS 2013).^{5,6} The percentage of children with public insurance who made one or more ED visits declined significantly between 2000 and 2012, as did rates for children with private insurance and uninsured children.⁷

Belief: *Medicaid patients use the ED frequently because they have difficulty getting in to see their regular doctor.*

Fact check: **True.**

Barriers to timely care increase the chances that individuals will use the ED (Cheung et al. 2012). Despite the fact that nearly all Medicaid enrollees report having a usual place of care other than the ED, approximately one-third of adult and 13 percent of child enrollees have reported barriers to finding a doctor or delays in getting needed care

(MACPAC 2014).⁸ Delays were more frequently reported by Medicaid enrollees than by people who are privately insured, and enrollees reported that these delays often occurred for several reasons, including: trouble getting through to the practice by phone or reaching a doctor after hours, difficulty getting an appointment soon enough, language barriers, and lack of transportation. For patients with disabilities (who are disproportionately represented in Medicaid), barriers also include facilities that lack appropriate physical access, staff who are not trained to accommodate patients with disabilities, and communication barriers—all of which can lead to delays in care, increased ED use, and preventable hospitalizations (Drainoni et al. 2006, Neri and Kroll 2003).

Medicaid enrollees who report more primary care barriers are more likely to report ED use. Moreover, patients who have better after-hours access to primary care practices report lower ED use and fewer unmet medical needs than patients without after-hours access (O'Malley 2013, Cheung et al. 2012, Cheung et al. 2011, Lowe et al. 2005).⁹ This strong association holds regardless of insurance coverage, and also after controlling for differences in patients' illness severity, patient attitudes, characteristics of a patient's primary care practice, and community capacity. It is important to note, however, that studies based on point-in-time surveys can only establish associations, not causality, between barriers to primary care and use of the ED.

Other studies of newly insured individuals coming off a period without insurance find higher ED visits and more barriers to care than individuals insured for the entire year, regardless of the type of insurance—Medicaid included (Ginde et al. 2012; MACPAC 2012a, 2012b; Kenney 2007). Following interruptions in Medicaid coverage (which disrupt access to providers), studies observe more hospitalizations and higher ED use among patients with diabetes (Hall et al. 2008); more psychiatric and other hospital admissions among patients with schizophrenia (Harmon et al. 2003); and higher spending and more ED visits and hospital admissions among patients with depression (Harmon et al. 2007).

Belief: *Frequent ED use could be avoided if those users had greater access to primary care.*

Fact check: **Partially true.**

Frequent users of the ED also use many other medical care services, including primary care, specialty care, mental health, and inpatient services. In extreme cases, these individuals may be referred to as super-utilizers. A recent study showed that working-age adults who reported four or more ED visits in the past year also reported an average of 3.1 visits to primary care physicians, 8.1 visits to specialist physicians, and 5.9 visits to non-physician providers (Rasch et al. 2013). The general concern about frequent ED users is that their health needs are not well-managed by the current health system (CHCS 2013). Frequent users include a wide array of individuals with diverse and complex needs, but the majority of them are severely disabled or in fair-to-poor health (Rasch et al. 2013, Hunt 2006). Persons with disabilities comprise 65 percent of frequent users (with four or more ED visits in the past year) and have high rates of ED use for injuries, hypertension, heart conditions, pneumonia or bronchitis, and mental disorders (Rasch et al. 2013).

Frequent use of the ED stems from a constellation of psychosocial and medical needs that cannot be addressed simply through primary care. Providers who work with super-utilizers attribute some of the repeat ED use to factors such as fragmented care stemming from serious mental illness and homelessness, high medical comorbidity, untreated substance use, pain diagnoses, physician reliance on EDs for follow-up care, and difficulty getting timely prescription refills (Billings and Raven 2013, Doran et al. 2013, Pines et al. 2011, Linkins et al. 2008). The complexity of super-utilizers' situations makes it difficult to assess how much of their ED use is an indirect consequence of barriers to care, or a direct consequence of complications arising from a disability or chronic condition.

How Medicaid enrollees differ from other frequent users remains largely unknown because most analyses do not stratify results by insurance coverage or examine Medicaid enrollees in detail. One study provides some insight: A large study of Medicaid enrollees in New York City shows that Medicaid-enrolled frequent ED users share certain characteristics with uninsured or otherwise insured frequent ED users, such as a high burden of chronic illness, disability, and dual diagnoses of substance use and mental illness (Billings and Raven 2013). Of enrollees with 15 or more annual ED visits, 62 percent had a history of both serious mental illness and substance use, compared to 10 percent of those with just one annual ED visit.

There is also evidence that some frequent ED users appear to receive inadequate primary or specialty care (while others use these services frequently). Among Medicaid enrollees with 10 or more ED visits in one year (who accounted for 12 percent of all ED visits), about half had weak ties to a regular physician. These individuals used primary care occasionally, used no primary care at all, or saw multiple primary care providers, all likely indicators of inadequate primary care provision, especially given the extreme ED use (Billings and Raven 2013). At least half did not receive outpatient care of any kind in the 30 days after they were discharged from the ED.

Belief: *Use of the ED will surge as Medicaid expands in 2014.*

Fact check: **Insufficient evidence.**

A recent evaluation of Oregon's expansion of Medicaid to childless adults raised concerns that ED use will surge in states that expand Medicaid (Taubman et al. 2014). A review of existing studies on prior Medicaid expansions suggests that the effects of coverage expansions could vary across states, with some experiencing no increase in ED use and others experiencing short-lived increases. Three evaluations of the 2008 Oregon Medicaid expansion, which opened enrollment to Oregon Health Plan Standard by lottery, found increased use of outpatient services and health care spending overall (Taubman et al. 2014, Baiker et al. 2013, Finkelstein et al. 2012). The most recent analysis found increased ED use after 18 months of enrollment across all ED visits (except those resulting in admission), while the two earlier analyses found no significant change.¹⁰

Studies of the 2006 Massachusetts reform, which expanded Medicaid as part of a broader state insurance reform, provided conflicting results about the impact on ED use. As in Oregon, the evaluations found either no ED effect (Miller 2012) or increases in ED and office visits (Chen et al. 2011). Analyses of 12 Medicaid expansions, which extended Medicaid to low-income working adults in eight other states between 2000 and 2009—prior to the ACA—found no evidence of increased use of emergency services or erosion of perceived access to care among enrolled adults (Ndumele et al. 2014).¹¹

The contrasting behaviors of two groups of enrollees in California's Low Income Health Program (LIHP) show how people, depending on their prior access to health care, use insurance differently once they become covered and that health care coverage can change how people interact with health care systems over time. LIHP was one component of California's pre-expansion initiative that provided comprehensive coverage to legal residents age 19 to 64 prior to December 2013.¹² Some individuals were covered by a legacy program with comparable benefits and seamlessly transferred into LIHP (Lo 2014). Evaluators reported that ED use by this group was low before LIHP and that it remained flat after the transition. By comparison, new LIHP enrollees previously ineligible for coverage showed much higher ED visit rates upon enrolling in LIHP. These rates steadily declined over time and eventually matched the low rate of the continuously covered legacy enrollees.

The effects of Medicaid expansions may differ across states based on the capacity of safety-net providers, the number

of newly eligible enrollees, and delivery system design (McMorrow and Long 2014). Past experience with expansions is limited and has led to conflicting results.

Delivery System Factors Driving ED Use

ED utilization is the result of many different factors, including the patient's and his medical provider's perceived need for prompt care, the perceived severity of the condition, the availability and accessibility of both the ED and alternative sites of care, and physician referrals to the ED. The public conversation on ED use often frames the policy problem as patients' excessive or inappropriate demand for ED services, that is, a presumption that unnecessary visits largely reflect a patient's decision to go to the ED. But other changes in the health system also are likely increasing demand for ED services.

Primary care physicians now frequently send non-emergency patients to the ED for rapid diagnostic work-ups, placing the decision to admit with the ED physician (Morganti et al. 2013, Carrier and Boukus 2013, Carrier et al. 2011). As a result, non-emergency patients seen in the ED have become increasingly medically complex (Pitts 2012). Some of the major reasons that primary care physicians refer non-emergency patients to the ED include the severity or complexity of the patient's illness; the need for more clinical information unavailable to the physician after hours; administrative barriers to direct admissions; and the relative ease of sending patients there (Morganti et al. 2013). There also has been a sharp decline in direct admissions to the hospital by office-based physicians and an even sharper increase in the number of admissions through the ED: now, almost one-half of all non-elective admissions go through the ED (Morganti et al. 2013).

The ED also has evolved to serve an expanded role in health care delivery, providing many services that, historically, took place on an inpatient basis (Morganti et al. 2013, Pitts et al. 2012). Concurrently, investments in technology and information systems have enhanced the emergency physician's opportunities to rapidly diagnose, treat, and manage an expanding range of acute and chronic conditions (Kocher et al. 2011, Korley et al. 2010). Many EDs also have invested resources in better managing patient-flow, resulting in higher patient volume—evidence that hospital systems can both benefit from higher patient volume and address adverse effects of ED crowding over time (Pitts 2012). However, it is important to bear in mind that the overall number of hospital-based EDs in the United States is decreasing, stretching the capacity of remaining EDs to care for a growing population (Hsia et al. 2011).

Programs to Reduce ED Use

Many state Medicaid programs have taken steps to reduce ED use. Common approaches include diverting patients with complaints deemed to be non-urgent to lower-cost settings, charging copayments for so-called non-emergency ED use, and focusing efforts on super-utilizers (Raven 2014). Such efforts involve development of alternative sites for non-emergency care, partnerships between hospitals and existing local clinics that offer extended hours or next-day appointments, IT systems to improve coordination, and programs to educate beneficiaries about appropriate use of settings. In addition, the Centers for Medicare & Medicaid Services (CMS) provided \$50 million in federal grant funds to 20 states in 2008 to establish alternate non-emergency service providers or networks of such providers (CMS 2013b).

Analyses of the impact of diversion programs differ in their findings. CMS reported states' success in reducing ED

use varied (CMS 2014).¹³ Two independent, comprehensive reviews of these state interventions, and studies of similar efforts nationwide, found mixed results (Raven 2014, Morgan et al. 2013). A MACPAC evaluation of the effectiveness of programs to reduce ED visit use did not find sufficient evidence to conclude that diversion approaches will produce savings to the Medicaid program (as opposed to reducing ED-related costs only), mainly because existing research has not quantified effects on the substitute use of primary care, specialists, laboratory testing and imaging, or the total cost to payers (CAMRI 2013).

Some state Medicaid programs have increased patient copayments (or have considered doing so) as a way to reduce non-emergency use of the ED in Medicaid.¹⁴ Research shows that imposing copayments can reduce ED use, but that it does not promote more efficient use of the ED, and copayments tend to shift use between settings, resulting in cost shifting between providers (Machledt and Perkins 2014). One study found no significant change in non-emergency ED use in nine states that made Medicaid copayment policy changes between 2001 and 2006 (Mortensen 2010), but it did not examine co-occurring changes in office visits and other ambulatory care.¹⁵ Another study found a small decrease in ED use overall (and no decrease for low-acuity conditions) after a \$20 surcharge was imposed for non-emergency ED use in Alabama's State Child Health Insurance Program (Becker et al. 2013). Adding a \$50 ED copayment and other cost sharing in the Oregon Health Plan resulted in decreased ED use, yet the evaluation also detected increased office visits and no effect on overall expenditures (Wallace et al. 2008). Copayments can be complicated to administer because there currently is no mechanism to safely and accurately identify non-emergency ED use. In addition, identifying ED visits that may be subject to copayments can be administratively burdensome to providers and patients, and copayments may ultimately discourage necessary and unnecessary ED care (Matthews 2012, HMA 2008).

Foundations have funded two major grant initiatives to develop strategies that reduce frequent hospitalizations and use of EDs. These strategies have yielded mixed results (RWJF 2011, Linkins et al. 2008).¹⁶ A MACPAC review of these super-utilizer programs and others found some high-profile programs (e.g., Camden Coalition of New Jersey and Hennepin Health) successfully cut ED use in the targeted population, but program savings came from cutting costs associated with hospital admissions rather than ED visits (Raven 2014, CMS 2013a). Early pilot programs were estimated to be cost-neutral after accounting for new services offered by the intervention (Linkins et al. 2008). Other recent efforts have failed to reduce use or accrue savings to payers, and many have not undergone rigorous evaluation (Raven 2014). It is difficult to extrapolate the impact any particular frequent user program will have if adopted by other communities because the models are customized to local resources and may not be transferrable to different delivery systems or markets (Dunford 2013, Folsom 2013, Brenner 2012).

A major challenge to evaluating frequent user programs is the tendency for a population of high utilizers to regress to lower average use without intervention. Suitable comparison groups are difficult to identify, and the episodic nature of frequent use over time may mask true program effects. Two recent longitudinal studies of frequent ED user populations found that approximately two-thirds of individuals identified as frequent users in the first year of study became low or infrequent users one year later (Colligan et al. 2014, Johnson et al. 2014).

Many ED reduction programs also have faced difficulty sustaining funding and stakeholder buy-in over the long term. Commonly reported obstacles to program sustainability include integrating systems of care, finding a permanent funding source for alternative clinic sites and payment for non-clinical staff and services, state licensing barriers, shared data systems, patient buy-in, and improved access to specialty care (Owens 2012, Kushel 2003). Success will depend on states' capacity to find creative solutions for sustaining programs beyond an initial pilot period.

Conclusions

Medicaid enrollees use the ED more than privately insured or uninsured persons, although there is little evidence of widespread inappropriate use of the ED. Research also points to higher ED use by Medicaid enrollees when they have difficulty accessing their regular doctor and other appropriate settings.

Narrowly targeting ED use through diversion or cost sharing is not guaranteed to reduce ED use or lead to overall program savings for Medicaid. Most evaluations of ED visit reduction programs have not examined the full impact on use and costs to the Medicaid program.

Expanding the availability of primary care could lead to more efficient use of the ED. However, ED use is likely to remain relatively high in Medicaid until new delivery models are in place to address the needs of frequent users. To the extent that ED visit reduction programs focused on frequent users can generate savings, the money will most likely come from their larger impact on inpatient hospital care, which represents a far greater proportion of spending in Medicaid than non-emergency ED care (CAMRI 2013, Smulowitz et al. 2013).

Endnotes

¹ The 4-percent proportion is based on spending for a representative population of non-institutionalized residents in the United States. Thus, total Medicaid spending here does not include spending for persons residing in institutions or their acute care costs. Total Medicaid spending also excludes lump-sum payments made to hospitals and other institutions in the form of supplemental payments and disproportionate share payments. Expenditures for ED services include the hospital facility amount and physician amount (MACPAC calculations based on Medical Expenditure Panel Survey (MEPS) Data Summary Tables, 2011 Full-Year Person File).

² Visits are categorized as non-urgent in hospital data when the patient is assessed by a triage nurse upon arrival at the ED as needing to see a physician in a time frame greater than 2 hours but less than 24 hours, presumably giving the patient time to go elsewhere.

³ Among adults age 19 to 64 covered by Medicaid for the entire year, 35.9 percent reported making at least one ED visit. Of these, about one in four (8.7 percent of all Medicaid enrollees), explained their visit using reasons related solely to provider access. These reasons were “occurred at night or on a weekend” and “doctor’s office/clinic was closed.” The 8.7 percent excludes individuals who reported that they were taken to the ED by ambulance, whose doctor advised them to go, and whose visit resulted in an admission. These statistics are extracted from Table 26 of MACStats in the March 2014 report to the Congress (MACPAC 2014).

⁴ NCHS changed its procedures and instructions to hospitals for classifying events by payer when multiple payer sources are possible. Specifically, until 2005 hospitals were instructed to select only one payment source where two were possible, using a hierarchy to determine the primary expected source (NCHS 2003, page 86). Beginning in 2005, hospitals were instructed to record all payment sources (NCHS 2005, page 103). In addition, the payer variable reflects the hospital’s “expected primary source of payment” for the visit rather than the source determined from payment reconciliation. Hospitals can reasonably be expected to change their strategy over time for selecting between Medicaid and other payers to reflect evolving practices for documenting uncompensated care and wider billing practices.

⁵ Proportions and standard errors for this calculation were taken from NCHS 2013, Table 87.

⁶ MACPAC conducted a multivariate analysis of these trends between 2009 and 2012 and found no significant change in the percentage of full-year insured Medicaid enrollees over age 18 with one or more ED visits in the past year, after controlling for changes in the composition of Medicaid enrollment based on age, sex, and health status. There was a decline in the adjusted percentage with four or more ED visits between 2009 and 2012, but the trend was not statistically significant.

⁷ MACPAC conducted a multivariate analysis of these NHIS trends from 2009 to 2012 among full-year insured enrollees and established that the declines observed in unadjusted percentages were not due to changes in the composition (based on age, sex, or health status) of Medicaid enrollees age 18 and younger.

⁸ These access measures and reasons for delayed care can be found in MACStats Tables 24–27 in the March 2014 MACPAC report to the Congress (MACPAC 2014).

⁹ The three studies cited in the text confirmed this association for Medicaid enrollees, and one of these studies found that Medicaid enrollees experienced higher ED use than privately insured enrollees for the same number of barriers reported (Cheung et al. 2012).

¹⁰ The three studies cited used different data sources, time periods, and populations to examine ED use. Taubman and colleagues (2014) used several methods to compare the ED results across studies, and attributed the earlier results of no change in ED use to incorrect recall of events by enrollees responding to the surveys. Taubman and colleagues relied on administrative data from EDs and were able to accurately identify the site of care and timing of events in relation to enrollment.

¹¹ The states that expanded Medicaid and the years of implementation were Arizona (2002), Illinois (2002, 2004, 2006), Tennessee (2002), Connecticut (2005), Colorado (2006), Maine (2006), Maryland (2008), and New Jersey (2008).

¹² California's Medicaid Section 1115 waiver, called the Bridge to Reform, established LIHP, which provided comprehensive benefits from July 1, 2011 to December 31, 2013, to low-income individuals age 19 to 64 who were ineligible for other federal and state coverage programs and were legal residents living in the United States for more than five years. LIHP essentially extended coverage provided by the Health Care Coverage Initiative (HCCI), which was established under the same waiver and provided coverage from September 1, 2007 to August 31, 2010. For more details about these programs, see <http://healthpolicy.ucla.edu/programs/health-economics/projects/coverage-initiative/Pages/default.aspx>.

¹³ Some programs reported no change in ED use per capita or could not determine effects of their program due to numerous confounding factors. See, for example, the ED Grant Summary for Colorado describing the Peak Vista Community Center intervention (CMS 2013b).

¹⁴ Federal statute prohibits states or their contractors from imposing cost sharing on emergency services (as defined by EMTALA) for Medicaid enrollees under 100 percent of poverty level, but authorizes cost sharing on non-emergency use of the ED by non-exempt populations (42 USC §§1396o, 1396o-1). Statute prohibits all cost sharing for certain exempt populations, including children, pregnant women, and most individuals residing in institutions. EMTALA is the Emergency Medical Treatment and Active Labor Act (42 USC §1395dd). EMTALA requires most hospitals to provide an examination and needed stabilizing treatment, without consideration of insurance coverage or ability to pay, when a patient presents to an emergency room for attention to an emergency medical condition.

¹⁵ Another study found reductions in non-urgent ED use over the period 2001–2009 using the NHAMCS data, but this study has not been peer-reviewed (Sabik and Gandhi 2014). Mortenson (2010) conducted a rigorous test of non-emergency ED use by Medicaid beneficiaries on a monthly basis before and after states made changes to copayment policy over the period 2001–2006; the study compared the change in use to the change in ED use in states that made no policy change, a difference-in-difference method.

¹⁶ These initiatives were (1) the Frequent Users of Health Services Initiative, jointly funded by the California Endowment and the California Health Care Foundation, and (2) the Robert Wood Johnson Foundation’s Aligning Forces for Quality (AF4Q) Super Utilizer Initiative. For a description of the 10 AF4Q super utilizer sites, go to <http://www.camdenhealth.org/cross-site-learning/project-locations>.

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