

CHAPTER

11

**Options for slowing the growth
of Medicare fee-for-service
spending for emergency
department services**

R E C O M M E N D A T I O N

- 11** The Secretary should develop and implement a set of national guidelines for coding hospital emergency department visits under the outpatient prospective payment system by 2022.

COMMISSIONER VOTES: YES 17 • NO 0 • NOT VOTING 0 • ABSENT 0

Options for slowing the growth of Medicare fee-for-service spending for emergency department services

Chapter summary

Medicare fee-for-service (FFS) beneficiaries' use of hospital emergency departments (EDs) has increased in recent years, in both volume of services per beneficiary and overall program and beneficiary spending. We explore the frequency with which EDs are used for low-acuity care relative to lower cost urgent care centers (UCCs)—health care organizations that are not EDs but provide care primarily on a walk-in basis beyond normal business hours and offer basic medical care and imaging services. In addition, we assess changes in the share of ED visits that are coded at high-acuity levels and the extent to which these changes may be the result of changes in provider coding practices. These analyses suggest opportunities for policymakers to slow the growth of Medicare ED-related FFS spending.

It may be appropriate for some nonurgent ED care to be treated in UCCs

Although UCCs account for a small share of Medicare physician service use, beneficiaries' use of UCCs has grown rapidly. UCCs accounted for 1 percent of all evaluation and management (E&M) claims in 2017, and just 7 percent of Medicare Part B FFS beneficiaries (2 million beneficiaries) used a UCC. However, from 2013 to 2017, the number of UCC claims per beneficiary increased 73 percent, significantly faster than other settings that provide low-acuity ambulatory care.

In this chapter

- Introduction
- Nonurgent care in EDs and UCCs
- Coding of ED visits has shifted to higher paying levels
- Conclusion

Medicare beneficiaries have rapidly increased their use of UCCs, but hospital EDs remain a common setting for nonurgent care, which we define as care related to any physician claim on which the principal diagnosis code includes one of seven conditions: bronchitis, urinary tract infection, upper respiratory infection, sprain, contusion, back pain, or arthritis. When a hospital ED treats a nonurgent condition, the Medicare program and beneficiaries spend between 3 and 20 times more per episode than when a UCC treats the same condition (depending on the type of UCC).

In 2017, 1.5 million Medicare physician fee schedule claims were for beneficiaries receiving nonurgent care at hospital EDs, representing 7 percent of all hospital ED E&M claims. The beneficiaries associated with these claims were more complex, on average, than beneficiaries receiving nonurgent care in UCCs. However, a subset of these beneficiaries using the ED appears to share the characteristics of relatively low-complexity beneficiaries receiving nonurgent care in UCCs. We estimate that about one-third of ED claims involving nonurgent care (or 2 percent of Medicare physician ED claims) could be appropriately treated in a UCC or other lower cost, non-ED setting.

Shifting a subset of claims for nonurgent care from EDs to UCCs would result in significant program and beneficiary savings, but doing so would require addressing beneficiary decision-making and the availability of care in non-ED settings. To address this issue in FFS Medicare, policymakers could consider policies implemented by commercial insurers or Medicaid programs. To encourage the migration of these cases from the ED to a non-ED setting, the program or accountable care associations could take the following approaches:

- Initiate a patient education campaign to improve beneficiaries' understanding of appropriate ED use, which could include developing educational materials and a website.
- Expand quality measurement of avoidable ED use across the Medicare FFS and Medicare Advantage programs, especially to provider types where nonurgent care is common.
- Encourage hospital EDs to improve care coordination with primary care physicians.

Improving the accuracy of Medicare payments for ED services

Under the hospital outpatient prospective payment system (OPPS), hospitals code each ED visit into one of five levels of intensity, with Level 1 as the least resource intensive with the lowest payment rate and Level 5 as the most resource intensive

with the highest payment rate. In 2005, ED visits across these five levels reflected an approximately normal distribution, with Level 3 as the most frequently coded level and Levels 1 and 5 as the least frequently coded. However, in recent years, coding of ED visits has steadily shifted to higher levels. In 2017, Level 4 was the most frequently coded level and Level 5 was the second most frequently coded. In 2017, hospitals coded 66 percent of ED visits as Level 4 or Level 5, up from 37 percent in 2005. Reportedly, coding of ED visits has shifted from lower levels to higher levels for patients covered by private insurance as well.

If the change in coding was due to ED patients having medical conditions that required more hospital resources for treatment or to ED patients receiving more resource-intensive care that produced better outcomes, then the change in coding and associated higher Medicare payments were warranted. Conversely, if the change in coding was due to hospitals providing more resource-intensive care that had little or no effect on patient outcomes or to upcoding with no corresponding change in beneficiary need or services provided, then the coding changes were not appropriate and associated higher Medicare payments were not justified.

We reviewed the literature and analyzed data to explain hospitals' coding of ED visits at higher levels. In the literature, some researchers argue that the coding of ED visits to higher levels reflects ED patients being older and sicker. Other researchers argue that the age and health of ED patients have not materially changed; rather, hospitals are taking advantage of weaknesses in the coding system to enhance revenue.

Our data analysis found that hospitals are providing more intensive care to ED patients. However, the conditions treated in EDs and the reasons that patients had given for seeking care in EDs were largely unchanged over time, which undercuts the argument that patient complexity has increased.

This lack of change in the conditions treated in EDs raises concerns about the appropriateness of the growth in service intensity. Some stakeholders have argued that the change in ED coding is due to the increased presence of UCCs, which pulls lower acuity patients away from EDs, resulting in an increased level of acuity among remaining ED patients. If UCCs pulled lower acuity patients from EDs, geographic areas where UCC use is high should also have high rates of ED patients coded at the highest level (Level 5). However, among geographic areas, we found almost no correlation (either positive or negative) between the rate of UCC use and rate of coding ED visits at Level 5.

The high concentration of ED visits coded as Level 5 suggests hospitals are potentially coding patients in response to payment incentives and Medicare is paying more than necessary for many patients who present in the ED setting.

Medicare could change the system of ED codes to improve its payment accuracy. Medicare could begin by developing a system of ED codes that are based on national coding guidelines and that reflect the resources hospitals use to treat ED patients. The Current Procedural Terminology (CPT) codes that hospitals use to code ED visits reflect the work and resources of physicians, not hospitals. CMS has responded to this lack of CPT codes for hospitals by directing hospitals to develop their own internal guidelines for coding ED visits.

In the early years of the OPSS, CMS emphasized the importance of developing national guidelines for hospitals so that coding would reflect hospital resource use. CMS spent several years working with hospitals and organizations such as the American Hospital Association, the American Health Information Management Association, and the American College of Emergency Physicians. Despite its effort to develop national guidelines, CMS was not able to implement them and ended this effort in 2008.

To improve the accuracy of Medicare payments for ED visits, the Commission recommends that the Secretary create and implement national coding guidelines. If done properly, the benefits of effective national coding guidelines for ED visits include the following:

- Payments for ED visits would accurately reflect the resources hospitals use when providing care in the ED setting.
- Hospitals would have a clear set of rules for coding ED visits.
- CMS would have a firm foundation for assessing and auditing the coding behavior of hospitals. ■

Introduction

Medicare fee-for-service (FFS) beneficiaries use many emergency department (ED) services. The number of visits to EDs has grown relative to the number of visits to physician offices in recent years. In 2017, 30 percent of Medicare Part B FFS beneficiaries (more than 10 million beneficiaries) were treated in hospital EDs without being admitted as inpatients. From 2011 to 2017, Medicare outpatient ED visits per Part B FFS beneficiary increased 14 percent, while the number of visits to physician offices increased just 4 percent. This discrepancy in growth between the ED setting (where average patient acuity is relatively high) and the physician office setting (where average patient acuity is relatively low) suggests that Medicare beneficiaries are changing where they receive care. This trend is not unique to Medicare; a recent study found similar trends for services covered by Medicaid and commercial insurance (Chou et al. 2019).

Several studies also suggest that the use of urgent care centers (UCCs)—health care organizations that are not EDs but provide care primarily on a walk-in basis beyond normal business hours and offer basic medical care and imaging services—and other non-ED settings have increased in recent years and that the provision of relatively low-acuity care across these settings overlaps (Ashwood et al. 2016, Baker and Baker 1994, Mehrotra et al. 2009, Mehrotra et al. 2008, Pitts et al. 2010, Thygeson et al. 2008, Weinick 2009, Weinick et al. 2010). Three studies effectively identify the growing role of UCCs—and the declining use of EDs—in treating low-acuity cases, or nonurgent care.¹ A 2018 study concluded that, from 2008 to 2015, commercially insured patients increased their use of UCCs for nonurgent care by 119 percent, while use of hospital EDs for these services declined 36 percent (Poon et al. 2018). In addition, the authors found that the commercial patients using UCCs for nonurgent care had lower risk scores and had higher incomes than patients with similar conditions who were treated in hospital EDs. A 2016 study of Medicare claims data concluded that in markets where the rate of UCC use for nonurgent care increased, the use of hospital EDs for nonurgent care decreased (Corwin et al. 2016). These two studies suggest UCCs are an alternative to hospital EDs. A third study estimated that between 13 percent and 27 percent of cases across all payers treated at hospital EDs nationally could be appropriately treated at UCCs or other non-ED providers, potentially saving \$4 billion annually (Weinick et al. 2010).

**TABLE
11-1**

Growth in Medicare spending on ED visits, 2011–2017

Year	Program spending (in billions)
2011	\$2.3
2012	2.4
2013	2.5
2014	3.3
2015	3.8
2016	4.0
2017	4.1

Note: ED (emergency department). Hospital outpatient ED spending data include beneficiary cost sharing and packaged ancillary services but not physician fee-schedule spending or spending for separately paid outpatient drugs and imaging services.

Source: MedPAC analysis of Standard Analytic Files, 2011–2017.

While the use of UCCs for nonurgent care appears to be increasing, hospitals and health systems retain a financial incentive to devote their limited capital to building higher cost EDs rather than UCCs because Medicare payment rates for ED services are higher. Moreover, a discrepancy between rates of growth in Medicare spending for ED services and the number of ED services furnished raises additional concerns that may implicate ED claim coding practices. From 2011 to 2017, Medicare program spending on ED visits under the hospital outpatient prospective payment system (OPPS) increased from \$2.3 billion to \$4.1 billion, a 74 percent increase per Medicare Part B FFS beneficiary (Table 11-1).² Over the same period, 2011 to 2017, the number of ED services per Part B FFS beneficiary increased 14 percent. Similar trends have been observed with commercially insured patients (Health Care Cost Institute 2018).³

Several factors contributed to the growth in Medicare spending on ED visits, including updates to the OPPS payment rates, an increased number of ED visits, a shift of ancillary items that were previously paid separately when provided during an ED visit but are now packaged into the payment rates of ED visits (which increases the ED payment rates), and ED visits coded to higher levels. We estimate that 20 percent to 25 percent of the growth was due to ED visits being coded to higher levels.

Medicare payment for ED services

Roughly 4,500 hospitals provide ED services. These EDs are open 24 hours per day and 7 days per week (24/7), and most EDs are on the campus of their parent hospital. About 400 EDs that bill Medicare are located apart from the hospital campus.⁴ These off-campus EDs are typically open 24/7, though some are open less. Whether on campus or off campus, hospital-affiliated EDs are required to comply with the Emergency Medical Treatment and Labor Act of 1986 (EMTALA), which requires facilities to stabilize patients in need of emergency medical care.⁵ For more details on EDs, please see our June 2018 report (Medicare Payment Advisory Commission 2018).

An encounter at a hospital ED by a Medicare beneficiary who is not admitted for subsequent inpatient care generates two separate claims: a physician claim and a hospital outpatient claim.⁶ Medicare pays for physician claims for ED encounters through Medicare's physician fee schedule (PFS) and for hospital claims for ED encounters through the OPSS. About 10 percent of the ED visits that do not lead to an inpatient stay become part of an observation stay, and the remaining 90 percent are paid as ED visits.

Both the PFS and OPSS use a five-tiered scale to pay for ED visits. Under the PFS, physicians code each ED visit into one of five Current Procedural Terminology (CPT) codes (99281, 99282, 99283, 99284, and 99285). Under the OPSS, the hospitals use the same five ED CPT code levels, and these codes translate into five distinct ambulatory payment classification (APC) groups for payment purposes.⁷ However, the five ED CPT codes describe and represent services provided by physicians, not the services provided by hospital staff and the resources expended by hospitals. The five CPT codes for ED visits have been unchanged since CMS launched the OPSS in August 2000. Factors that make up the guidelines for the five codes include patient history, complexity of the examination, level of medical decision-making, and level of urgency faced by the physician. Under both the PFS and OPSS, beneficiaries are responsible for cost sharing equal to 20 percent of the allowed charges for the services they receive.

Because the ED CPT codes describe and represent the work and effort of physicians, not the hospital staff, CMS has directed hospitals to develop their own internal hospital-specific guidelines for the five codes. Therefore, there are no national guidelines for hospitals to refer to

when coding ED visits. We do not know much about the coding guidelines hospitals use, but the definitions are likely to vary. The lack of national guidelines for hospitals makes identifying differences in hospital resource use problematic and makes auditing hospital coding more difficult.

Medicare payment for UCC services

UCCs are an increasingly common source of ambulatory medical care because of their ability to deliver care outside of an ED without scheduled appointments. About 8,100 UCCs were operational in 2018, up 33 percent from 2013, and these facilities provide 150 million visits annually (Urgent Care Association of America 2018). (See the text box, pp. 388–389, for more information on the UCC industry.)

Medicare regulates UCCs by designating them as equivalent to physician offices. An encounter by a Medicare beneficiary at a UCC triggers one of two payment scenarios, depending on the facility's hospital affiliation:

- If an encounter is at an independent UCC (not affiliated with a hospital), it generates only a PFS claim. The UCC receives the same higher nonfacility-based PFS payment rate as physician offices and retail clinics. UCCs use 1 of 10 evaluation and management (E&M) codes to characterize each visit and bill separately for ancillary services. These facilities cannot bill Medicare for one of the five ED CPT codes.
- If the encounter is at a UCC that is a provider-based department of a hospital, it generates both a PFS claim and an OPSS claim. The PFS claim for the clinician services includes 1 of the 10 E&M codes and is paid using the facility-based PFS payment rates, which are lower than the nonfacility rates. Under the PFS, some ancillary services are also separately paid. The OPSS claim for the facility services uses a single code for a hospital outpatient clinic visit.

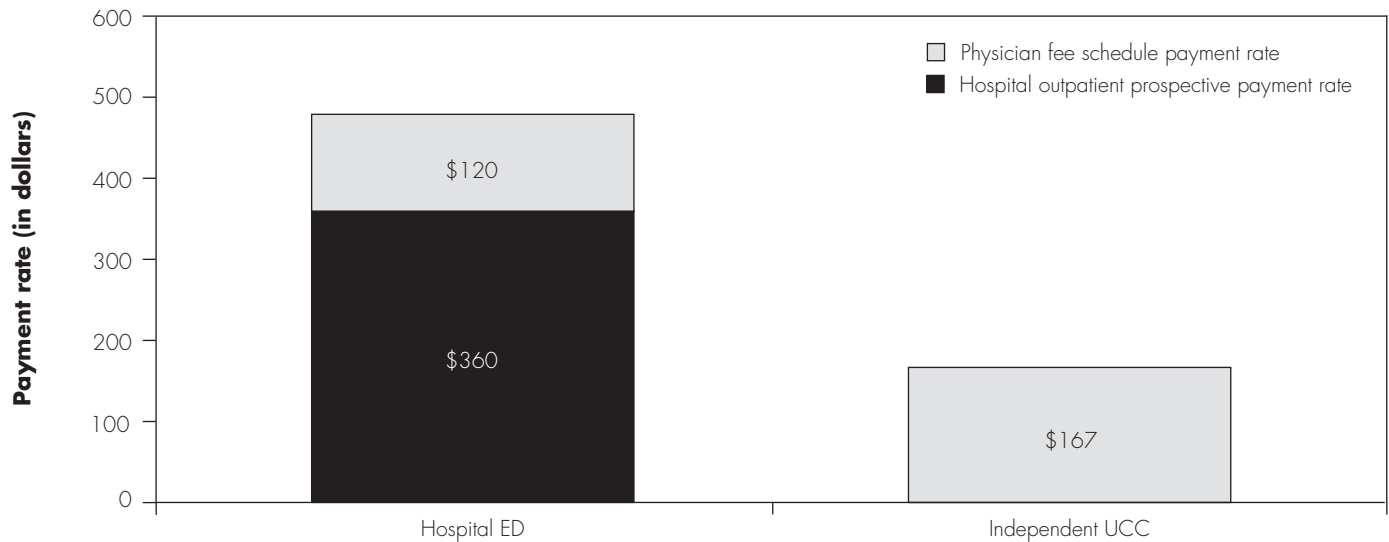
Beneficiaries served at either independent UCCs or provider-based UCCs are responsible for 20 percent cost sharing.

Comparison of Medicare payment rates at hospital EDs and UCCs

Medicare payment rates are generally higher for comparable patients when they are treated in a hospital ED, relative to a UCC. Under a hypothetical example of

**FIGURE
11-1**

Medicare payment rates are higher for comparable patients when they are treated in a hospital ED, relative to a UCC



Note: ED (emergency department), UCC (urgent care center). ED rates reflect an outpatient prospective payment system Level 4 ED visit and a physician fee schedule (PFS) Level 4 ED visit receiving the facility-based rate. UCC rates reflect a PFS Level 4 facility-based evaluation and management visit for new patients.

Source: MedPAC analysis of Medicare 2019 hospital outpatient prospective payment system payment rates and physician fee schedule payment rates.

the most common ED level—a Level 4 ED visit—the 2019 Medicare payment rate for a hospital ED open 24/7 is \$480, combining the PFS payment of \$120 and the OPSS payment of \$360 (not including other ancillary services) (Figure 11-1). By contrast, if the same patient were treated in an independent UCC, the UCC would receive a nonfacility-based PFS payment of \$167. Because beneficiaries in all of these settings are responsible for 20 percent cost sharing, their liability differs greatly depending on where the service is provided.

- How does spending for nonurgent care differ between hospital EDs and UCCs?
- To what extent could beneficiaries treated for nonurgent care in EDs be effectively treated at UCCs?
- How might the provision of nonurgent care in hospital EDs be addressed?
- How does the quality of care provided at UCCs compare with care at EDs?

Nonurgent care in EDs and UCCs

In this section, we discuss several questions about nonurgent care provided at hospital EDs:

- To what extent could care provided in EDs be shifted to UCCs?
- Where do Medicare beneficiaries commonly receive nonurgent care?

Use of UCCs increasing, overlaps with hospital EDs

UCCs accounted for a small share of Medicare physician service use in 2017, but their use grew rapidly from 2013 to 2017. In 2017, UCCs treated 2.1 million Medicare beneficiaries, resulting in 3.2 million PFS E&M claims, which represent 7 percent of Medicare Part B FFS beneficiaries and 1 percent of all PFS E&M claims.⁸ From 2013 to 2017, the volume of E&M claims per beneficiary at UCCs increased 73.3 percent, faster than any other

Urgent care centers

Services and patient mix

Urgent care centers (UCCs) appear to fill a gap between physicians' offices and hospital emergency departments (EDs), offering patients greater convenience. Relative to physician offices, UCCs offer extended hours, unscheduled appointments, more diagnostic testing options, and a broader array of procedures. Relative to hospital EDs, UCCs offer shorter wait times and more locations (Weinick et al. 2010).

UCCs provide relatively low-complexity care, imaging, and laboratory services. For example, a 2010 study estimated that 65 percent of UCC cases were attributed to three conditions: upper respiratory infections (33 percent), musculoskeletal conditions (22 percent), and dermatological conditions (10 percent) (Weinick et al. 2010). In addition, 42 percent of prescriptions written at UCCs were for antibiotics and 14 percent were for pain medications. Durable medical equipment is one of the top services offered by UCCs (Urgent Care Association of America 2018, Weinick et al. 2010). UCCs typically house an X-ray machine, rather than ultrasound or MRI machines, and commonly conduct basic laboratory testing such as urinalysis and throat cultures.

UCCs tend to serve a high share of commercially insured patients. In 2016, 67 percent of patient visits were paid by commercial insurers, 12 percent were self-pay patients, 9 percent were Medicare beneficiaries, 8 percent were Medicaid beneficiaries, and 4 percent were paid for by other payers (Urgent Care Association of America 2018). Part of the skew in payer mix may be due to the suburban location of the majority of UCCs. In 2018, 87 percent of UCCs were located in suburban areas, 8 percent were in urban areas, and 6 percent were in rural areas (Urgent Care Association of America 2018). Additionally, communities with UCCs generally have a higher average income than communities without UCCs (Yee et al. 2013).

Staffing

UCC staffing models vary, but most have at least one physician, medical assistant, radiologic technician, and receptionist. Some UCCs choose to employ nurse practitioners (NPs) and physician assistants (PAs) rather than physicians to reduce staffing costs (Urgent Care Association of America 2018). Medicare claims data confirm this reliance on NPs and PAs. In 2017, 42 percent of UCC claims were billed by an NP or

(continued next page)

provider types offering similar services (Table 11-2, p. 390). Over the same period, the volume of all E&M claims per beneficiary at physician offices declined by 3.3 percent and increased at EDs by 2.6 percent. UCCs treat a wide range of conditions; the majority of these are generally regarded as relatively low-acuity conditions. In 2017, across all Medicare cases, the five most common conditions of beneficiaries treated at UCCs were upper respiratory infection, bronchitis, cough, urinary tract infection, and sinus infection. These five conditions accounted for nearly 30 percent of E&M claims at UCCs.

Several conditions treated at UCCs overlap with hospital EDs. In 2017, 8 of the 20 most common conditions treated at UCCs were also among the 20 most common

conditions treated at hospital EDs: urinary tract infections, cough, hypertension, back pain, pneumonia, dizziness, chest pain, and shortness of breath. Compared with EDs, UCCs tend to serve a larger share of beneficiaries who are established patients (as opposed to new patients), and the most common procedures provided at UCCs suggest a less complicated overall mix of beneficiaries. In 2017, 67 percent of beneficiaries treated at UCCs were billed as established patients, compared with 1 percent at EDs.^{9,10} In addition, the most common procedure codes found on UCC claims were lower complexity procedures such as X-rays, urinalyses, and flu tests, as opposed to higher complexity procedures common to hospital EDs, such as MRI scans, computed tomography (CT) scans, wound repairs, and intubations.

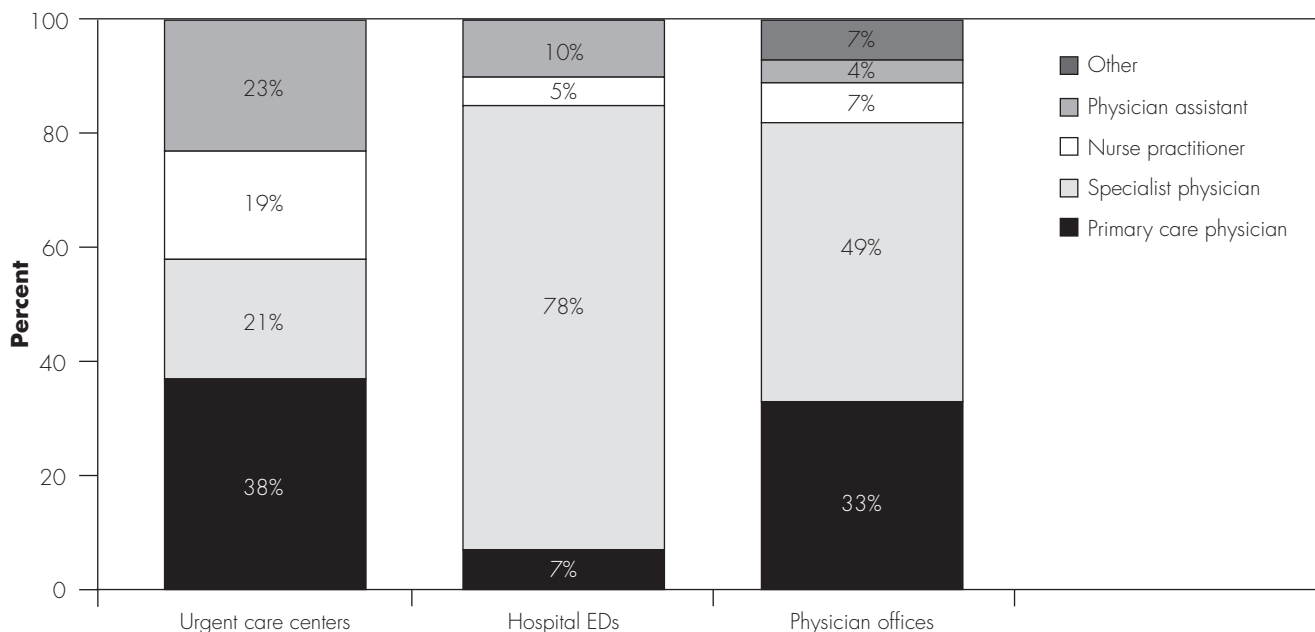
Urgent care centers (cont.)

a PA (Figure 11-2). By contrast, NPs and PAs billed 15 percent and 11 percent of claims at EDs and physician offices, respectively.¹¹ At UCCs, physicians

billed the remaining 59 percent of claims, and these physicians were more likely primary care than specialists such as emergency care physicians.^{12,13} ■

FIGURE 11-2

Share of clinicians billing Medicare, by place of service, 2017



Note: ED (emergency department). The percentages in the column for urgent care centers do not sum to 100 because of rounding. The share of claims billed by nurse practitioners (NPs) and physician assistants (PAs) at urgent care centers and physician offices may be slightly higher if it were possible to identify claims where NPs and PAs billed under a physician identification number. "Other" includes a wide range of provider types including chiropractor, podiatrist, and occupational therapist.

Source: MedPAC analysis of Medicare carrier claims, 2017.

Nonurgent care provided in various settings, increasing at UCCs

To compare services provided to Medicare beneficiaries at UCCs, EDs, and other non-ED settings, we limited examined cases to those that were likely to occur across these settings. We refer to these cases as nonurgent care. Our definition of nonurgent care is drawn from a 2016 study published in the *American Journal of Medicine*,

which defines Medicare claims as nonurgent if the principal diagnosis on the claim includes an International Classification of Diseases, Ninth Revision (ICD-9), code associated with one of seven conditions: urinary tract infections, upper respiratory infections, bronchitis, contusions, sprains, back pain, and arthritis (Corwin et al. 2016).¹⁴ Of the various definitions of nonurgent care, we chose the Corwin method: Because the seven conditions cited in the 2016 study are also among the most commonly

TABLE 11-2

Number of PFS claims for E&M services grew faster in UCCs than in other ambulatory care settings, 2013-2017

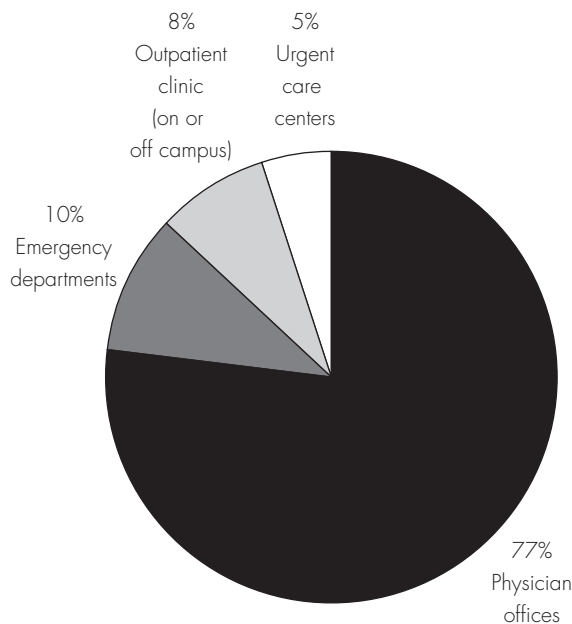
Place of service	Number of Medicare PFS E&M claims per 1,000 Part B FFS beneficiaries		Percent change in Medicare PFS E&M claims per 1,000 Part B FFS beneficiaries
	2013	2017	2013-2017
All	8,101	8,101	0.0%
Physician offices	6,704	6,486	-3.3
Hospital EDs	616	631	2.6
Outpatient clinics	638	1,086	70.2
Urgent care centers	55	95	73.3

Note: PFS (physician fee schedule), E&M (evaluation and management), UCC (urgent care center), FFS (fee-for-service), ED (emergency department). Outpatient clinics include both on- and off-campus hospital outpatient clinics.

Source: MedPAC analysis of Medicare carrier claims, 2013 and 2017.

FIGURE 11-3

Share of Medicare claims for nonurgent care by place of service, 2017



Note: We define claims involving nonurgent care as those with a principal diagnosis of one of seven conditions: urinary tract infections, upper respiratory infections, bronchitis, contusions, sprains, back pain, and arthritis. In 2017, other providers furnished some nonurgent care. Retail clinics accounted for 13,000 claims involving nonurgent care. Other types of independent, state, or federal clinics and federally qualified health centers collectively accounted for approximately 12,000 claims involving nonurgent care.

Source: MedPAC analysis of Medicare carrier claims, 2017.

recorded on UCCs' Medicare claims, this method was built around Medicare claims, and it identifies a conservative number of claims relative to other methods.¹⁵

Nonurgent care provided in various settings

In 2017, Medicare paid 14.9 million PFS claims for nonurgent care (6 percent of PFS E&M claims). These claims were associated with 8.1 million beneficiaries (24 percent of Part B FFS beneficiaries). In 2017, physician offices accounted for 77 percent of claims for nonurgent care (11.4 million claims) (Figure 11-3). EDs accounted for 10 percent of these claims (1.5 million claims), outpatient clinics accounted for 8 percent (1.1 million claims), and UCCs accounted for 5 percent (794,000 claims).¹⁶

Use of UCCs for nonurgent care increased

Medicare beneficiaries' use of UCCs for nonurgent care has increased and may be migrating from other settings. Across all provider types, from 2013 to 2017, the number of PFS claims for nonurgent care per Part B FFS beneficiary increased 23 percent (Table 11-3). Over this period, the most rapid growth was at UCCs, where the number of claims for nonurgent care per beneficiary increased 72 percent. By contrast, at physician offices and EDs, the number of claims for nonurgent care increased 19 percent and 9 percent, respectively. From 2016 to 2017, the volume of claims for nonurgent care at UCCs increased 13 percent compared with no volume change at hospital EDs and a decline of 6 percent at physician offices.

**TABLE
11-3**

Number of PFS claims for nonurgent care grew faster in UCCs than in other ambulatory care settings, 2013–2017

Place of service	Number of Medicare PFS claims for nonurgent care per 1,000 Part B FFS beneficiaries			Percent change in Medicare PFS claims for nonurgent care per 1,000 Part B FFS beneficiaries	
	2013	2016	2017	2013–2017	2016–2017
All	361	463	443	23%	–4%
Physician offices	285	362	341	19	–6
Hospital EDs	41	45	45	9	0
Outpatient clinics	20	34	33	60	–3
Urgent care centers	14	21	24	72	13

Note: PFS (physician fee schedule), UCC (urgent care center), FFS (fee-for-service), ED (emergency department). We defined claims involving nonurgent care as those with a principal diagnosis of one of seven conditions: urinary tract infections, upper respiratory infections, bronchitis, contusions, sprains, back pain, and arthritis. Outpatient clinics include both on and off-campus hospital outpatient clinics.

Source: MedPAC analysis of Medicare carrier claims, 2013–2017.

Some degree of the growth at each place of service was likely due to demand induced by the opening of new facilities rather than by substitution across settings. Some researchers have pointed to the greater convenience of UCCs as a possible source of induced demand for nonurgent care (Poon et al. 2018). Several studies document the increased use of non-ED settings, such as UCCs and retail clinics, for nonurgent care in recent years and suggest induced demand and site of service substitution may be occurring (Ashwood et al. 2016, Chou et al. 2019, Poon et al. 2018). For example, one of these studies found that among 20 million privately insured patients, overall per patient visits for nonurgent care increased from 2008 to 2015, as these visits declined at EDs (36 percent decrease) and increased at non-ED settings such as UCCs (119 percent increase) (Poon et al. 2018).

Use of UCCs for nonurgent care varies by metropolitan area

The volume of ED and UCC claims for nonurgent care varies significantly across metropolitan statistical areas (MSAs). To assess the geographic variation in the use of UCCs by Medicare beneficiaries, we examined the 50 largest MSAs by population. Among these 50 MSAs, in 2017, UCCs consistently accounted for a relatively small share of nonurgent care visits. However, the use of UCCs ranged from 2 claims per 100 beneficiaries in the

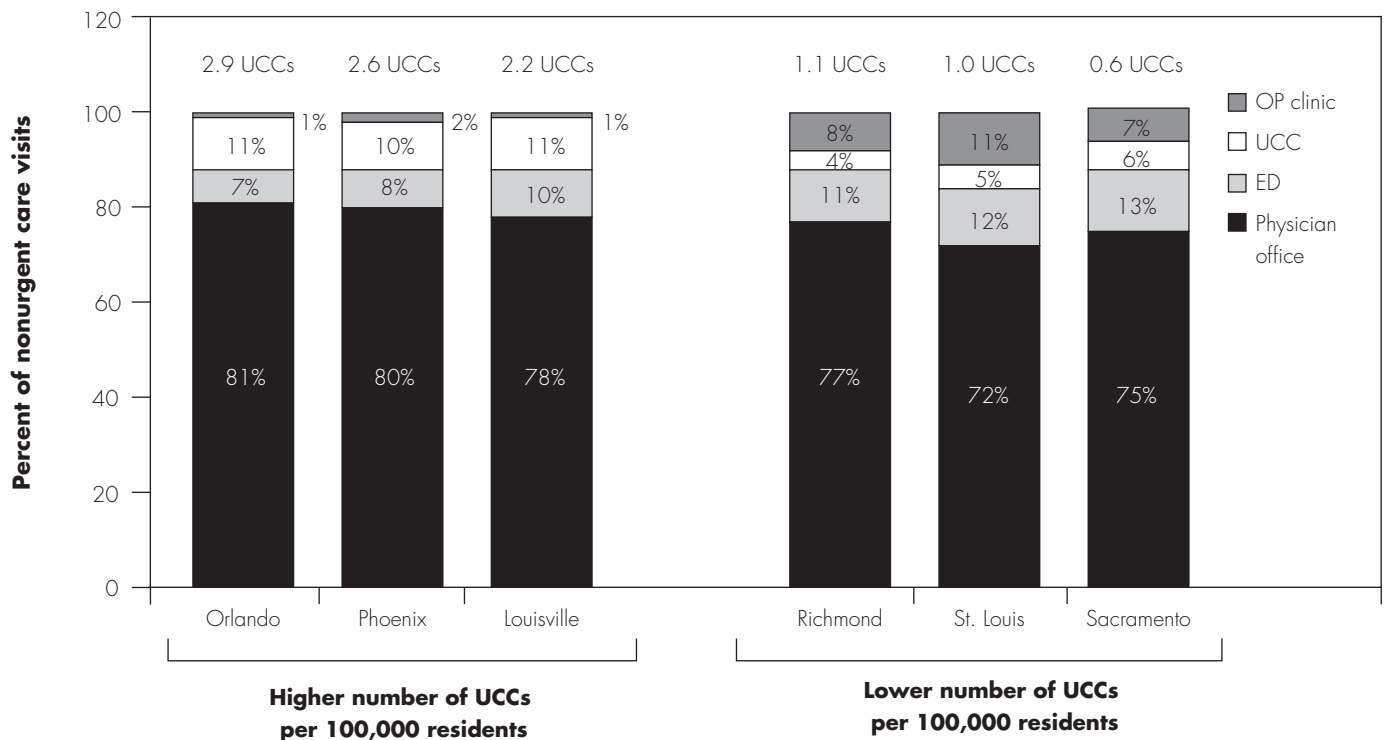
Virginia Beach/Norfolk, VA, MSA to 25 claims per 100 beneficiaries in the Orlando, FL, MSA.

Market-level variation also exists with regard to the share of claims for nonurgent care treated at UCCs, with UCC use positively correlated with the market penetration of UCCs in some MSAs. In a few MSAs with a comparatively high penetration of UCCs (the number of UCCs per resident), UCCs accounted for a relatively large share of nonurgent care visits, and EDs accounted for a relatively small share.¹⁷ For example, the Orlando, FL, MSA had a high concentration of UCCs (2.9 UCCs per 100,000 residents), and 11 percent of visits for nonurgent care occurred at UCCs and 7 percent occurred at EDs (Figure 11-4, p. 392). The opposite was true for several MSAs with relatively low penetration of UCCs. For example, the St. Louis, MO, MSA had a low concentration of UCCs (1.0 UCC per 100,000 residents), and 5 percent of visits for nonurgent care occurred at UCCs and 12 percent occurred at EDs. However, these trends are not consistent across all MSAs with high and low concentrations of UCCs, due in part to market-level variation in the presence of other ambulatory care providers such as outpatient clinics and possibly in part to the relative size of UCCs.

The impact of UCC volume growth on ED volume is inconsistent across individual MSAs. Across all 50 MSAs, we found only a weak correlation between the change

FIGURE 11-4

Rate of UCC use is correlated with UCC penetration in a market, 2017



Note: UCC (urgent care center), OP (outpatient), ED (emergency department). The percentages in the column for Sacramento do not sum to 100 because of rounding.

Source: MedPAC analysis of Medicare carrier file claims, 2017.

in the number of claims per beneficiary for nonurgent care at UCCs and the change in claims for nonurgent care at EDs. From 2013 to 2017, among the 10 MSAs, in aggregate, with the highest growth rates in UCC claims for nonurgent care, the volume of ED claims for nonurgent care increased rather than declined. Individually, only 2 of these 10 MSAs experienced a decline in volume of ED claims for nonurgent care. For example, in the Hartford, CT, MSA and Birmingham, AL, MSA, the number of claims for nonurgent care at UCCs increased by 1 claim per 100 beneficiaries, while the number of claims for nonurgent care at EDs declined by approximately 0.5 claims per 100 beneficiaries. Even in the MSA with the highest concentration of UCCs per resident—Milwaukee, WI—the number of claims for nonurgent care at UCCs increased just 0.5 claims per 100 beneficiaries, while the number of claims for nonurgent care at EDs declined

by 0.8 claims per 100 beneficiaries. In Milwaukee, the number of claims for nonurgent care at outpatient clinics also increased while claims for nonurgent care at physician offices decreased. The change in nonurgent care in these settings suggests that both UCC and outpatient clinic visits are substituting for ED and physician office visits. Therefore, while UCCs may be in part substituting for ED visits in some MSAs, the extent of the substitution by UCCs or other non-ED provider settings is unclear.

ED spending is higher and beneficiaries are more complex; some ED visits may be appropriate for UCCs

Spending for nonurgent care

Medicare program spending per encounter for nonurgent care varies significantly by place of service. In 2017,

**TABLE
11-4**

Medicare spending per encounter for nonurgent care was much lower in UCCs than in hospital EDs, 2017

Place of service	Share of claims	Average spending per encounter involving nonurgent care (including PFS, OPPS, and beneficiary cost sharing)	Average beneficiary cost sharing
UCC (hospital affiliated)	100%	\$739	\$148
UCC (independent)	100	110	22
Hospital EDs			
All visits	100	3,859	772
Coded as ED Level 5	23	5,896	1,179
Coded as ED Level 4	38	4,783	957
Coded as ED Level 3	33	2,232	446
Coded as ED Level 2	5	1,151	230
Coded as ED Level 1	1	897	179
Coded as ED Levels 1, 2, or 3	39	2,067	413

Note: UCC (urgent care center), ED (emergency department), PFS (physician fee schedule), OPPS (outpatient prospective payment system). We defined claims involving nonurgent care as those with a principal diagnosis of one of seven conditions: urinary tract infections, upper respiratory infections, bronchitis, contusions, sprains, back pain, and arthritis.

Source: MedPAC analysis of Medicare carrier claims and hospital outpatient claims, 2017.

the average per encounter spending for beneficiaries receiving nonurgent care at hospital-affiliated UCCs—which bill under both the PFS and OPPS—was \$739 (Table 11-4). Per encounter spending includes physician services, services covered under the OPPS (inclusive of packaged ancillaries and separately paid items such as drugs and imaging), and beneficiary cost sharing for both physician and outpatient claims. In contrast, average per encounter spending for nonurgent care at independent UCCs—which bill under only the PFS—was \$110.¹⁸

By contrast, the average per encounter spending ranged from \$897 for Level 1 ED visits to \$5,896 for Level 5 ED visits (Table 11-4). The average per episode spending of ED claims with the three lowest ED codes (Levels 1, 2, and 3) combined was \$2,067, three times higher than for beneficiaries receiving nonurgent care at hospital-affiliated UCCs and 20 times higher than at independent UCCs. Importantly, differences in beneficiary cost sharing by place of service are proportional to per encounter spending estimates.

Beneficiaries receiving nonurgent care at EDs are more complex

Claims for beneficiaries receiving nonurgent care at hospital EDs in 2017 represented 7.1 percent of hospital

ED E&M claims—1,512,123 claims (Table 11-5, p. 394). However, only a subset of these ED claims may have been appropriate for UCCs. On average, the beneficiaries receiving nonurgent care at EDs had a risk score of 1.61, compared with 0.97 for beneficiaries receiving nonurgent care at UCCs (Table 11-5).¹⁹ On average, beneficiaries receiving nonurgent care at EDs had 3.1 chronic conditions, compared with 2.0 for beneficiaries receiving nonurgent care at UCCs.

In addition, compared with beneficiaries receiving nonurgent care at UCCs, a smaller share served at EDs were ages 65 to 74 and a larger share were in minority groups. These findings are consistent with a prior Commission analysis concluding that on-campus EDs tend to serve higher complexity cases than both stand-alone EDs and UCCs (Medicare Payment Advisory Commission 2018). In addition, across the eight MSAs we analyzed with both high and low concentrations of UCCs, beneficiaries receiving nonurgent care at EDs on average had higher risk scores and more chronic conditions than beneficiaries receiving nonurgent care at UCCs. In all of these MSAs, minority groups were also more likely to receive nonurgent care at EDs than UCCs.

**TABLE
11-5**

Beneficiaries receiving nonurgent care in EDs were more complex than beneficiaries receiving nonurgent care in UCCs, 2017

	Hospital ED	Urgent care center
Number of physician E&M claims involving nonurgent care	1,512,123	793,898
Number of unique beneficiaries	1,224,124	650,597
Acuity		
Average patient risk score (overall average = 1.0)	1.61	0.97
Average number of chronic conditions per beneficiary	3.1	2.0
Share of claims with no chronic conditions	30%	38%
Share of claims with 5 or more chronic conditions	32%	15%
Demographics		
Share ages 0 to 64 years	27%	16%
Share ages 65 to 74 years	34%	55%
Share ages 75 or more years	40%	29%
Race		
Share White	79%	89%
Share African American	14%	5%
Share other minority	7%	5%

Note: ED (emergency department), UCC (urgent care center), E&M (evaluation and management). We defined claims involving nonurgent care as those with a principal diagnosis of one of seven conditions: urinary tract infections, upper respiratory infections, bronchitis, contusions, sprains, back pain, and arthritis. The percentages under the “demographics” and “race” categories do not always sum to 100 because of rounding.

Source: MedPAC analysis of Medicare carrier claims, CMS beneficiary denominator file, and Medicare risk score file, 2017.

Across the seven nonurgent conditions, the complexity of beneficiaries receiving nonurgent care at EDs in 2017 was consistently higher than for beneficiaries receiving nonurgent care in UCCs (Table 11-6). On a national level, the average beneficiary risk score for each of the seven conditions for beneficiaries receiving nonurgent care at EDs ranged from 1.32 to 1.83, compared with a range of 0.92 to 1.17 for beneficiaries receiving nonurgent care at UCCs. Also, the average number of chronic conditions for beneficiaries receiving nonurgent care at EDs ranged from 2.6 to 3.5, compared with a range of 1.9 to 2.5 for beneficiaries receiving nonurgent care at UCCs.

A subset of ED claims for nonurgent care may be appropriate for UCCs

Despite the higher average complexity of beneficiaries receiving nonurgent care at EDs relative to UCCs, a subset of these ED visits could be appropriately treated in UCCs.

We estimate that about 500,000 claims for beneficiaries receiving nonurgent care in EDs in 2017 could have been appropriately treated in UCCs. These half million claims share the characteristics of UCC claims for nonurgent care. Specifically, we attributed these ED claims to beneficiaries with a risk score less than or equal to 0.97 (the average risk score for nonurgent care claims at UCCs) and two or fewer chronic conditions (the average number of chronic conditions for nonurgent claims at UCCs). About two-thirds of these claims were for bronchitis or urinary tract infections (UTIs), and a disproportionate share were for upper respiratory infections (URIs). Therefore, patients presenting at the ED for nonurgent care related to bronchitis, URIs, and UTIs may be among the best candidates for treatment at UCCs.

While researchers have estimated that 13 percent to 27 percent of hospital ED cases across all payers nationally could be appropriately treated at UCCs, our research

**TABLE
11-6**

Across the seven nonurgent conditions, the complexity of beneficiaries receiving nonurgent care at EDs in 2017 was consistently higher than that of beneficiaries receiving nonurgent care in UCCs

	Hospital EDs		Urgent care centers	
	Average patient risk score	Average number of chronic conditions per beneficiary	Average patient risk score	Average number of chronic conditions per beneficiary
All claims involving nonurgent care at hospital EDs	1.61	3.1	0.97	2.0
Bronchitis	1.83	3.5	1.15	2.4
Urinary tract infections	1.68	3.3	1.02	2.2
Upper respiratory infection	1.32	2.6	0.92	1.9
Contusions	1.55	3.2	1.17	2.5
Arthritis	1.51	3.0	1.10	2.4
Back pain	1.32	2.7	0.98	2.0
Sprains	1.34	2.8	1.05	2.1

Note: ED (emergency department), UCC (urgent care center). We defined claims involving nonurgent care as those with a principal diagnosis of one of seven conditions: urinary tract infections, upper respiratory infections, bronchitis, contusions, sprains, back pain, and arthritis.

Source: MedPAC analysis of Medicare carrier file claims, CMS beneficiary denominator file, and Medicare risk score file for 2017.

suggests that, for Medicare cases, that percentage would be smaller (Weinick et al. 2010). We estimate that between 2 percent (cases for beneficiaries receiving nonurgent care at EDs that have low relative complexity) and 7 percent (all cases for beneficiaries receiving nonurgent care at EDs) of Medicare hospital ED E&M cases could be appropriately treated in UCCs or other non-ED settings. If this migration of visits were to occur, we estimate the Medicare program and beneficiaries could save between \$400 million and \$2 billion annually. The lower end estimate assumes only the 200,000 ED claims for nonurgent care that fall in the three lowest ED levels migrate to UCCs. The higher end estimate assumes all 500,000 ED claims for nonurgent care migrate to UCCs.

Quality of care at UCCs

Currently, there is no Medicare quality reporting or payment program specific to UCCs. Consequently, information about the quality of care is limited. Physicians practicing at UCCs can participate in the Quality Payment Program for clinicians established by the Medicare Access and CHIP Reauthorization Act of 2015, but little is known about how the quality of care at UCCs differs

from quality in other settings. The limited research that does exist concerning UCC quality is focused on antibiotic prescribing patterns. Some evidence suggests UCCs may overprescribe antibiotics. In 2014, 46 percent of visits for antibiotic-inappropriate respiratory diagnoses treated at UCCs resulted in an antibiotic prescription, compared with 25 percent at EDs and 17 percent at physician offices (Palms et al. 2018). Another study found that antibiotics were administered at 42 percent of all UCC visits (Weinick et al. 2010). However, a third study found similar rates of antibiotic prescribing at retail clinics, physician offices, and urgent care clinics (Mehrotra et al. 2009). The mixed results highlight the need to further evaluate UCC quality.

Our own assessment of UCC quality suggests that, on average, beneficiaries served in UCCs do not disproportionately use subsequent ED services. In 2017, 3 percent of beneficiaries receiving nonurgent care at UCCs had an ED claim in the seven days after their UCC visit. By contrast, 10 percent of beneficiaries receiving nonurgent care at EDs had an ED claim within the seven days after their initial ED visit. In addition, 2 percent of beneficiaries receiving nonurgent care at physician offices

had an ED claim within the seven days after their initial office visit. Consistent with our expectations, differences in the rate of subsequent ED visits between UCCs and EDs are likely linked to the differences in patient complexity noted earlier.

In addition, a few commercial insurers have begun to require UCCs to earn accreditation with one of three entities. The insurers require accreditation to ensure that UCCs are providing their members with care meeting their standards. Neither Medicare nor any state Medicaid programs currently require that UCCs be accredited as a condition of participation.

Policies addressing nonurgent care at hospital EDs

Providing nonurgent care in EDs usually results in higher program spending and beneficiary cost sharing relative to providing the same care in UCCs or other non-ED settings. A subset of the nonurgent care provided in EDs could be appropriately treated in lower cost settings. Therefore, shifting a subset of these claims from EDs to UCCs or other non-ED settings would likely result in significant program and beneficiary savings.

Despite the potential for reduced spending, encouraging the migration of nonurgent care visits from EDs to lower cost settings is complicated because it may involve changing beneficiary decision-making and ensuring that alternative care settings are available. Beneficiaries requiring immediate medical care face the difficult question of which setting is most appropriate. Research suggests patients of all income levels, with all types of insurance, and with a usual source of primary care struggle with the question of which setting will best serve their nonurgent care needs (New England Healthcare Institute 2010). In addition, some assert that the recent increased ED use may be due to a lack of access to primary care (Agency for Healthcare Research and Quality 2017, Mehrotra 2013, Premier 2019, Wesson et al. 2018). Commercial insurers, the Medicaid program, and other stakeholders have made efforts to reduce the use of EDs for nonurgent care in recent years by focusing on issues of patient choice of setting and access to alternative non-ED settings.

Commercial insurers

Commercial insurers have implemented an array of policies encouraging patients to avoid the ED when seeking nonurgent care. Some insurers have taken a more aggressive approach, pushing back on hospitals and

beneficiaries, using audits or claim denials. For example, in 2017, Anthem began retrospectively auditing ED claims in Georgia, Kentucky, and Missouri to identify visits the company believes had occurred in an inappropriate setting (Livingston 2018). In 2018, UnitedHealth began auditing hospital ED claims when the company believed hospitals had coded at too high a complexity level.²⁰ As a part of this approach, UnitedHealth adjusts claims to lower ED complexity levels or denies claims. Commercial insurers who chose retrospective audit policies have received criticism in the media, with some contending the policies cause financial hardship for patients (Chou and Schuur 2018, Kliff 2018).

Other insurers have implemented education-based policies aimed at assisting patients and providers with identifying the appropriate setting for nonurgent care. Many insurers have developed websites describing circumstances in which EDs or UCCs are more appropriate (Aetna 2018, BlueCross BlueShield 2018, Cigna 2018). Many insurers also offer their members nurse telephone call-in lines or nurse help lines that are open 24 hours per day and assist patients with finding the appropriate care setting. Some insurers offer the same help-line services but do so through a website-based online messaging application. In general, nurse help lines (telephone and online applications) have become common in the commercial insurance industry, at VA medical centers, and among large health systems. For example, the Mayo Clinic Health System and Novant Health offer nurse help lines to their surrounding communities.²¹ Nurse help lines are also common in the Medicare Advantage (MA) program. In 2015, approximately 80 percent of MA beneficiaries had access to a nurse help line as a supplemental benefit. Although nurse help lines appear common in the commercial and MA environment, Medicare FFS beneficiaries do not have access to a nurse help line through the Medicare program.

Most major Medicaid and managed care organizations require nurse help lines, also known as telephone triage, of their providers (Schmitt and Hertz 2014). The limited research on their effectiveness points to their ability to reduce ED utilization and save money on health care costs (Barber et al. 2000, O'Connell et al. 2001). Several states utilize these help lines for their Medicaid and uninsured populations, and these publicly funded call centers have become increasingly popular over time (Schmitt and Hertz 2014).

At least one insurer uses quality metrics to assess its members' ED use by measuring the number of visits per month each member has to an ED if the member is not subsequently admitted to the hospital as an inpatient (CareOregon 2019). This Oregon-based insurer uses these data to educate members about non-ED alternatives, improve care coordination with primary care physicians, and assess the adequacy of non-ED care options in the service area.

State Medicaid programs

State Medicaid programs have also implemented a variety of approaches to address the use of EDs for nonurgent care. Similar to commercial insurers, some states have taken an aggressive approach. In 2018, Kentucky implemented a policy to penalize Medicaid beneficiaries between \$20 and \$75 per visit if the state deems an ED visit to be unnecessary (Gillespie 2018). In 2011, Washington State attempted to implement a policy to deny payment for unnecessary ED visits, but ultimately compromised with the hospital industry and physician groups to implement an education-based policy in which they collectively wrote a set of best practices and distributed them to patients and providers (Kellerman and Weinick 2012). This policy resulted in an initial 23 percent reduction in ED visits by frequent ED users (Uscher-Pines 2013).

CMS provides states with general guidance related to reducing the use of EDs for nonurgent care under their Medicaid programs and permits states to use cost sharing to alter patient decisions about site of service (Centers for Medicare & Medicaid Services 2014). In a 2014 informational bulletin, CMS's Center for Medicaid and CHIP Services (CMCS) identified three key strategies Medicaid programs can use to reduce these visits. CMCS recommended (1) broadening access to primary care services, such as through medical or health homes or through alternative primary care sites; (2) focusing on "super utilizers" of ED services by developing on-site non-ED clinics or community-based interventions; and (3) targeting the needs of people with behavioral health needs through case management programs and medical homes for those with substance abuse problems.

In addition, states are permitted to impose cost sharing on Medicaid beneficiaries for nonemergent services provided in an ED, but not for other ED visits. For Medicaid beneficiaries with a family income at or below 150 percent of the federal poverty level (FPL), states may impose up

to \$8 in cost sharing for these nonemergent services. For Medicaid beneficiaries with a family income above 150 percent of FPL, states can impose cost sharing for these nonemergent visits as long as it does not exceed 5 percent of the family's income.²² As of January 2018, 12 state Medicaid programs impose cost sharing on Medicaid adults with a family income at or below 150 percent of FPL for nonemergent visits to an ED (Kaiser Family Foundation 2019).

Policy ideas from other entities

Beyond the commercial insurance industry and the Medicaid environment, other stakeholders have proposed policies that contemplate reducing ED visits for nonurgent care. These policies aim to improve primary care access and care coordination, expand physician quality measurement to include measures of avoidable ED visits, optimize beneficiary cost-sharing policies, and establish more effective clinical evaluation criteria for EDs (Davies et al. 2017, Lee et al. 2013, New England Healthcare Institute 2010). A recent white paper by hospital cooperative Premier suggests that the use of EDs for nonurgent care could be reduced if hospitals implemented care management programs for patients with chronic conditions, such as behavioral health conditions (Premier 2019). Others have suggested that simply turning patients away from EDs with denial-based policies is not effectively resolving the problem of improving outcomes and enhancing value (Uscher-Pines 2013).

CMS has made recent efforts to accelerate the interoperability of electronic health records (EHRs) with the goal of improving care coordination across payers and providers (Keith 2019). It has arguably improved communication between hospital EDs and primary care physicians and could reduce the use of EDs for nonurgent care. In 2019, CMS proposed to accelerate the interoperability of EHRs by requiring payers to make patient health information available electronically through a standardized open application programming interface; requiring hospitals to send electronic notifications to the patient's other providers when the patient is admitted, discharged, or transferred; and publicly disclosing when providers inappropriately restrict the flow of information to other health care providers and payers (Centers for Medicare & Medicaid Services 2019).

Strategies to address nonurgent care at EDs

The Commission has suggested that policymakers consider the options discussed in this chapter as possible strategies

for reducing FFS beneficiaries' use of EDs for nonurgent care. Some of the policies identified in this chapter have come with potential unintended consequences. The denial of ED claims, cost-sharing increases, or payment penalties may deter appropriate ED use, which in turn could worsen patient outcomes and result in higher long-term spending. To address concerns about Medicare spending for ED visits for nonurgent care, policymakers could consider a few other strategies implemented or suggested by commercial insurers, Medicaid programs, and other sources. The Medicare program or accountable care organizations (ACOs) that serve FFS beneficiaries could consider the following strategies:

- Implement a patient education campaign, which could improve beneficiaries' understanding of appropriate ED use, the benefits of having a regular primary care physician, and the cost-sharing benefits of the various non-ED settings. The program or ACOs could develop a website and distribute educational materials that identify the types of conditions and symptoms appropriate for the ED setting. These materials should encourage beneficiaries to seek care through a primary care physician's office or another non-ED setting, such as UCCs, that offers extended hours on nights or weekends when physician offices are typically unavailable.
- Assess primary care access using quality measurement tools. The program or ACOs could use Medicare physician claims data to measure avoidable ED use. This measurement tool could identify gaps in FFS beneficiaries' primary care access in individual markets or hospital service areas. Policymakers could then develop policies to fill these gaps and reduce the use of EDs for nonurgent care.
- Improve care coordination between hospital EDs and non-ED settings. The Medicare program—except, most likely ACOs—could accelerate requirements for hospitals and other providers to maintain interoperable EHRs and to share patient data on a real-time basis. For example, in an environment where patient data are openly shared across providers, an FFS beneficiary's ED visit for nonurgent care may trigger communication between the hospital ED and the beneficiary's primary care physician, which may prevent any subsequent use of EDs for nonurgent care.

In addition, the Commission also suggests that the Medicare program encourage ACOs to implement 24-hour

nurse help lines (telephone and/or online application) to assist FFS beneficiaries with their decision about which care setting is appropriate for their care needs. ACOs may be better suited than the larger Medicare program to initiate nurse help lines because ACOs have a direct incentive to reduce beneficiary spending.

Coding of ED visits has shifted to higher paying levels

In 2017, Medicare FFS beneficiaries had 14.7 million ED visits that did not lead to an inpatient stay. About 1.4 million of these ED visits were part of an observation stay; the rest were simply ED visits. In 2017, combined program spending and beneficiary cost sharing for ED visits was \$4.1 billion. In addition, program spending and beneficiary cost sharing was \$3.1 billion for observation stays, which almost always include an ED visit.

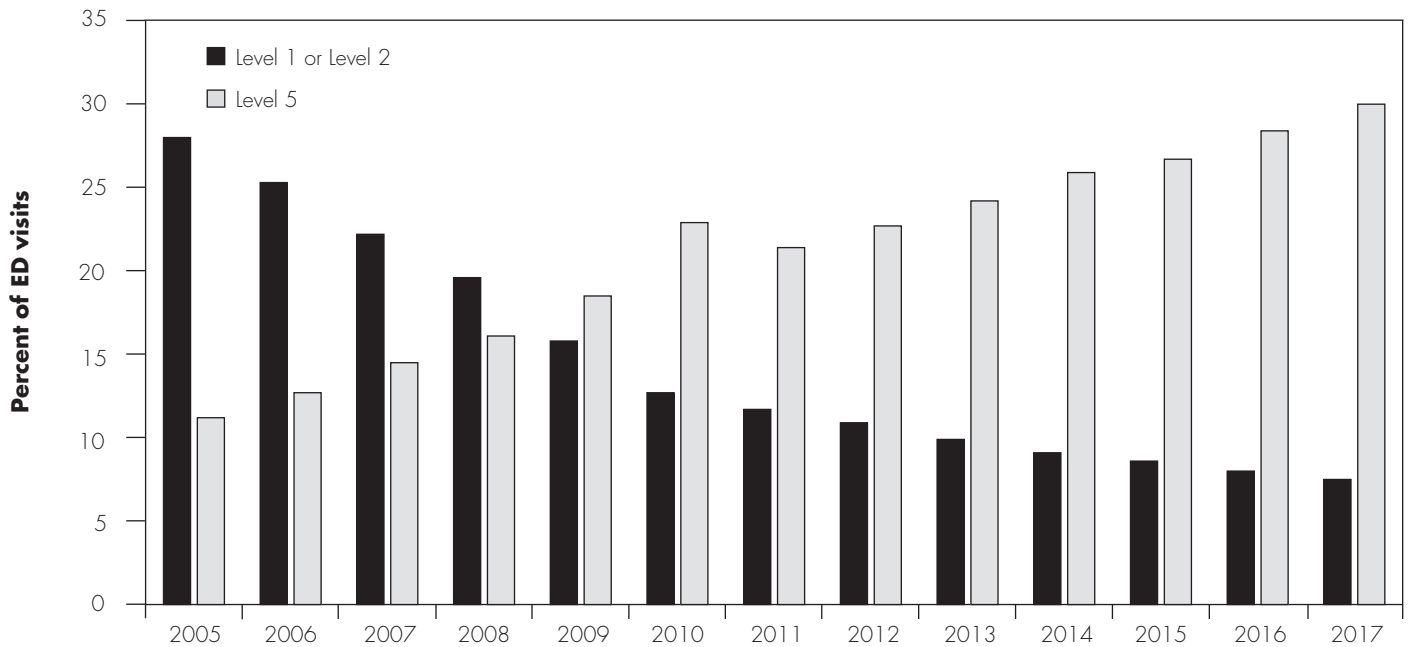
When a patient is treated in a hospital ED and the ED visit does not result in an inpatient stay, the hospital codes the visit on a claim into one of five Current Procedural Terminology (CPT) code levels (Level 1 through Level 5). The five levels are intended to distinguish ED visits on the basis of the resources hospitals use to treat patients. The more resources a hospital uses, the higher the level that hospitals can record on a claim. Under the OPPI, payments increase with the level of the ED visit, with Level 1 visits having the lowest payment rate (\$70 in 2019) and Level 5 visits having the highest payment rate (\$525 in 2019).

However, because the CPT codes for ED visits reflect the services and activity of the physicians who treat the ED patients, not hospital resources used to furnish care, these codes are not useful for guiding hospitals on how to code ED visits. In response, CMS has directed hospitals to develop their own internal guidelines for coding ED visits, but CMS expected that hospitals' internal guidelines would comport with 11 principles (Centers for Medicare & Medicaid Services 2007).

Under their own guidelines for coding ED visits, hospitals' coding of these visits has steadily shifted from the lower levels to the higher levels. From 2005 to 2017, the share of ED visits coded as Level 1 or Level 2 decreased from 28.0 percent to 7.5 percent, and the share coded as Level 5 increased from 11.2 percent to 30.0 percent (Figure 11-5).²³

**FIGURE
11-5**

Share of emergency department visits coded at high levels increased, at low levels decreased, 2005–2017



Note: ED (emergency department).

Source: MedPAC analysis of 2005–2017 cost statistics files for the outpatient prospective payment system from CMS.

It is important to know the factors underlying the change in coding of ED visits. If the change in coding was due to ED patients having medical conditions that required more hospital resources for treatment or due to ED patients receiving more resource-intensive care that produced better outcomes, then the change in coding and the associated higher Medicare payments are warranted. Conversely, if the change in coding was due to hospitals providing more resource-intensive care that had little or no effect on patient outcomes or reflects upcoding with no corresponding change in beneficiary need or services provided, then the coding change and associated higher Medicare payments are inappropriate.

The high concentration of ED visits coded at Level 5 suggests that Medicare payments for ED visits do not accurately reflect the costs hospitals incur in furnishing ED care. If increased coding to Level 5 has occurred because hospitals changed their coding behavior without

a commensurate change in either the medical conditions of its ED patients or the treatment of those patients, then Medicare is paying more than necessary to adequately reimburse hospitals for these visits.

Patient characteristics do not explain hospitals coding ED visits to higher levels

We reviewed the literature and performed our own data analysis to identify why the coding of ED visits shifted to higher levels. Two papers were especially informative. Both papers investigated whether the change in ED coding reflected sicker ED patients and/or the provision of more intensive care that results in better outcomes. Neither paper identified a definitive reason for the change in coding (Burke et al. 2018, Eaton 2012).

In our data analysis, we used data from Medicare claims for the hospital outpatient sector that included an ED visit and data from the National Hospital Ambulatory Medical

Care Survey (NHAMCS), a nationally representative sample that includes information from hospitals about their ED visits. Our results show that the conditions treated in EDs changed very little over time.

Strong disagreements in the literature over the reasons for the change in ED coding

The Center for Public Integrity investigated the change in coding of ED visits, including interviews with experts and stakeholders such as hospital representatives and individuals who perform coding for hospitals. A paper from this investigation revealed strong disagreements over whether the change in coding reflects hospitals treating sicker patients or advances in treatments that produce better outcomes (Eaton 2012). Hospitals defended their coding practices, reporting that the increase in higher level ED codes occurred because their patients were older and sicker and because advances in medical care allowed hospitals to treat patients in EDs without later admitting them for an inpatient stay. Other interviewees disagreed with the hospitals' reports. They argued that the severity and complexity of ED patients were largely unchanged over time. They assert that hospitals were simply coding patients to increasingly higher levels over time as a way to enhance revenue.

Several sources indicated that rules and guidelines for coding ED visits provide substantial leeway for hospitals to make changes to their coding practices, and hospitals have taken advantage of that leeway. Moreover, allowing hospitals to use their own guidelines makes it more difficult for CMS to monitor and audit hospital coding of ED visits because there is not a consistent benchmark. These sources cited two factors that facilitated the change in ED coding:

- greater use of EHRs and other electronic systems, which helps hospitals more completely record the medical interventions provided during an ED visit and can prompt providers to use interventions they may have overlooked; and
- the absence of national coding guidelines for ED visits for all hospitals, as CMS has directed hospitals throughout the existence of the OPSS to create their own internal coding guidelines.

Although the paper from the Center for Public Integrity was a useful investigation of the change in ED coding, it largely presented arguments without empirical analysis. An analysis that used Medicare claims data to assess the

changes in the coding of ED visits was also inconclusive. This data-based analysis provided support for both sides of the argument over whether the change in coding for ED visits was appropriate (Burke et al. 2018). In support of the argument that ED coding had shifted to higher levels because patients were sicker or that hospitals provided more intensive care, this study found an increase in the number of services provided per ED visit, with the largest increase among the patients who had ED visits coded as Level 5. In addition, the rate at which ED patients were later admitted for inpatient stays decreased over time, which suggests that the increased use of services may have had some benefit to patient outcomes.

However, another part of this analysis supports the argument that hospitals changed their coding practices in response to payment system incentives. Burke and colleagues used statistical techniques to predict the number of Level 5 ED visits in a base year (2006) if the patient characteristics and other factors from a later year (2012) had occurred in the base year. The authors found that not all of the increased coding of Level 5 ED visits could be explained by their model, which could indicate some upcoding by the hospitals.

Data from claims and a sample of ED visits do not provide a clear explanation for the change in ED coding

Our analysis of Medicare beneficiaries' ED visits also provides support for both sides of the argument over hospitals' coding behavior. The analyses we performed included:

- Whether the principal diagnoses recorded on claims and the reasons that ED patients gave for going to an ED changed over time. A change in the conditions treated could explain the change in ED coding.
- Whether ED coding changed only for some medical conditions or whether there was a shift of coding to higher levels for most conditions. Some conditions treated in EDs are low acuity and require only basic treatments. If coding for these conditions has shifted to higher levels, it is questionable whether the shift could be explained by more intensive treatment or higher severity patients. Therefore, a shift in coding to higher levels for most or all conditions could indicate upcoding has occurred.
- Whether the change in coding was similar across geographic areas or whether some areas had much

larger coding changes than others. If the shift in ED coding occurred because patients are generally sicker or because treatment is more intensive, we expect a general shift in coding to higher levels across most or all geographic areas.

- Whether care provided to ED patients was more resource intensive, and, if so, what services were more frequently used by hospitals.
- Whether there was a relationship between the extent to which Medicare beneficiaries received care in UCCs and the rate at which hospitals code ED visits at high levels. Some have argued that UCCs have drawn lower acuity patients away from EDs, resulting in the remaining ED patients being sicker, on average, than previously (Eaton 2012). If this assertion is true, there should be a positive correlation between beneficiaries' use of UCCs in a geographic area and the rate at which hospitals in that geographic area code ED visits at high levels.

Principal diagnoses and patients' reasons for going to EDs changed little over time We examined whether the conditions treated in EDs changed from 2011 to 2017, a period during which the share of ED visits coded as Level 5 increased from 21.4 percent to 30.0 percent. Each claim for an ED visit has a principal diagnosis code that identifies the condition, diagnosis, or problem that is chiefly responsible for the services provided. A change over time in the principal diagnoses for ED patients could result in hospitals treating conditions that require more intensive care.

We identified the 210 most frequently recorded principal diagnosis codes in 2011. These codes were the principal diagnoses on 75 percent of the ED visits in 2011. We limited our analysis to these 210 diagnosis codes to ensure that each code had enough observations to produce reliable statistics. We found that these 210 diagnosis codes continued to be the principal diagnoses on about 75 percent of the claims for ED visits each year through 2017, which indicates little change in the conditions treated in EDs over the 2011 through 2017 period.

For each of the 210 diagnosis codes, we also determined the share of ED visits that had the diagnosis code as the principal diagnosis for both 2011 and 2017. Among these diagnosis codes, we found a strong correlation between the shares for the diagnoses in 2011 and the shares in 2017 (a correlation coefficient of 0.95). For example, the

most frequent principal diagnosis code in both 2011 and 2017 was unspecified chest pain (diagnosis code 78650); it was the principal diagnosis on 2.9 percent of all ED visits in 2011 and 3.0 percent in 2017. Most of the 210 principal diagnosis codes had similar shares of total ED visits in both 2011 and 2017, which indicates that the mix of conditions treated in EDs was very similar in 2011 and 2017.

In a final analysis of the principal diagnosis codes, we further sorted the claims by ED visit level. For example, unspecified chest pain was the primary diagnosis for 380,260 ED visits in 2011. Among these visits, 0.9 percent were Level 1; 1.4 percent were Level 2; 9.8 percent were Level 3; 31.5 percent were Level 4; and 56.6 percent were Level 5 (Table 11-7, p. 402). We sorted the 2017 ED visits into the same diagnosis code and ED visit categories. For each principal diagnosis code, we compared how the share of ED visits in each level changed from 2011 to 2017. We found that from 2011 to 2017, the share of patients who were coded at Level 5 ED visits increased in all 210 principal diagnosis codes we evaluated. The share of ED visits coded at Level 5 increased even for minor conditions. For ED visits that had the principal diagnosis of epistaxis (nosebleed), the share coded as Level 5 was 4.1 percent in 2011 and steadily increased to 5.7 percent in 2017. Table 11-7 provides an illustration of this analysis, using the results for the diagnosis code for unspecified chest pain as an example.

Finally, we evaluated the reasons and complaints that patients provided for visiting an ED. Using NHAMCS data from 2011 and 2016, we found that patients' reasons for visiting (RFVs) did not change much. Of the 10 most frequent reasons for visiting an ED in 2011, 9 were still among the top 10 reasons in 2016. Also, we found that 66 RFVs constituted 75 percent of claims in 2011. These same RFVs constituted 74 percent of all ED visits in 2016.

Hospitals increased number of services provided per ED visit We evaluated whether hospitals increased the intensity of care provided during ED visits by estimating the change in the number of services provided during ED visits and analyzing the change in the types of services hospitals provided during ED visits. We estimated the change in hospitals' use of screening services and procedures. The screening services include laboratory tests (primarily blood tests and urinalysis) and imaging services (primarily X-rays and CT scans). The procedures are typically simple to administer, such as administration of

**TABLE
11-7****Among ED visits for unspecified chest pain, the share coded as Level 5 increased, 2011–2017****Number of claims and share of all claims coded at each level**

	2011		2017	
	Number of claims	Share of claims	Number of claims	Share of claims
Level 1	3,300	0.9%	2,326	0.5%
Level 2	5,140	1.4	2,664	0.6
Level 3	37,160	9.8	28,230	6.5
Level 4	119,620	31.5	105,303	24.3
Level 5	215,040	56.6	295,077	68.1
Total	388,260	100.0	433,600	100.0

Note: ED (emergency department). This table is based on ED claims that have unspecified chest pain (diagnosis code 78650) as the principal diagnosis. The “share of claims” for 2011 does not sum to 100 percent because of rounding.

Source: MedPAC analysis of Standard Analytic Files, 2011–2017.

intravenous fluids and nebulizer treatments. We used data from the 2011 and 2016 versions of the NHAMCS.

The median number of screening services provided during ED visits increased by 52 percent from 2.0 in 2011 to 3.1 in 2016. The number of lab tests changed by a trivial amount, but some tests that were often done in 2011, such as measurement of electrolytes or blood glucose, were usually part of more comprehensive tests in 2016, such as complete metabolic panels. Use of two screening tests—electrocardiograms (EKGs) and CT scans—increased. The number of EKGs per 100 ED visits increased from 29 in 2011 to 34 in 2016, and the number of CT scans per 100 ED visits increased from 20 in 2011 to 25 in 2016. Finally, the number of procedures provided during ED visits was largely unchanged from 2011 to 2016, but the use of some procedures (nebulizer treatments) increased while the use of other procedures (bladder catheterization) decreased.

We used claims data to do a more in-depth analysis of the EKGs and CT scans that hospitals administered during ED visits. We identified 20 of the most frequent principal diagnoses listed on ED claims in 2011, then evaluated the rate at which hospitals administered EKGs and CT scans during ED visits from 2011 and 2017 that had one of these 20 principal diagnoses. Most of the results from

this analysis were as expected. In both 2011 and 2017, hospitals often provided EKGs during ED visits with a principal diagnosis of unspecified chest pain, and often provided CT scans of the head during ED visits with a principal diagnosis of unspecified head injury. Other results seemed surprising: The use of EKGs was about 18 per 100 ED visits that had unspecified constipation as the principal diagnosis, and use of CT scans of the head was 14 per 100 ED visits that had urinary tract infection (UTI) as the principal diagnosis. While this utilization may seem counterintuitive, certain protocols may lead clinicians to use CT scans in conjunction with these diagnoses. For example, a fragile elderly patient who shows up in an ED with altered mental status might receive a CT scan of the head to rule out acute conditions like stroke. This patient may subsequently be diagnosed with UTI, which can be associated with dehydration and altered mental status, but is a diagnosis of exclusion, after neurological injury has been ruled out.

While hospitals in our study frequently administered EKGs for unspecified chest pain, the rate at which hospitals used EKGs for this diagnosis did not increase much from 2011 to 2017, 2.6 percent. Use of CT scans of the head for unspecified head injury also had fairly slow growth, 4.9 percent. In contrast, rapid growth in use of

EKGs and CTs of the head occurred for ED visits where UTIs were the principal diagnosis. Use of EKGs during ED visits that had UTI as the principal diagnosis increased 20 percent from about 29 per 100 ED visits in 2011 to about 35 per 100 ED visits in 2017. Use of CT scans of the head increased 33 percent from about 11 per 100 ED visits to about 14 per 100 ED visits. It is interesting that the number of EKGs per 100 ED visits increased by a larger amount for ED visits that had UTI as the principal diagnosis (6 per 100 visits) than for ED visits that had unspecified chest pain as the principal diagnosis (about 3 per 100 visits).

In summary, our results indicate that hospitals provided more intensive care during the average ED visit in 2017 when compared with ED visits from 2011. In particular, use of CT scans—an advanced imaging service—increased by about 25 percent, and use of EKGs increased by about 19 percent.²⁴

An important issue is that increased use of services during an ED visit should not automatically result in coding of ED visits to higher levels. When a hospital provides a service during an ED visit, the hospital should consider whether the service is a packaged item or a separately payable item under the OPSS. If the service is a packaged item, its cost is packaged into the payment rate for the ED visit, and it should be included in the hospital's determination of how to code the ED visit. Conversely, if the service is a separately paid item, the service has its own payment rate and is paid separately from the ED visit. From 2001 through 2008, CMS made an effort to develop national guidelines for ED visits. During that effort, CMS initially said that separately payable items should not be considered when a hospital determines how to code an ED visit. CMS indicated that including separately payable items in the guidelines for coding ED visits would result in double payments for hospital resources. CMS later revised its stance on this issue, saying that some separately payable items may not result in double payment for some components of those items. In particular, if all separately payable items are removed from consideration of how to code an ED visit, it may be difficult for the remaining packaged items to capture the acuity level of the patient.

This distinction between packaged and separately paid items is important when assessing the change in coding of ED visits. Two of the screening services that are frequently provided during ED visits, EKGs and CT scans, have different payment status under the OPSS when provided

during an ED visit. Most EKGs are packaged, and most CT scans are paid separately. Consequently, the increased use of EKGs could help explain some of the shift in coding ED visits to higher levels, but the increased use of CT scans should have a smaller effect than that increased use suggests.

There were large geographic differences in the coding of ED visits and little correlation between coding of ED visits and use of UCCs

We assessed the extent of geographic differences in the coding of ED visits. Two results from that analysis stand out.

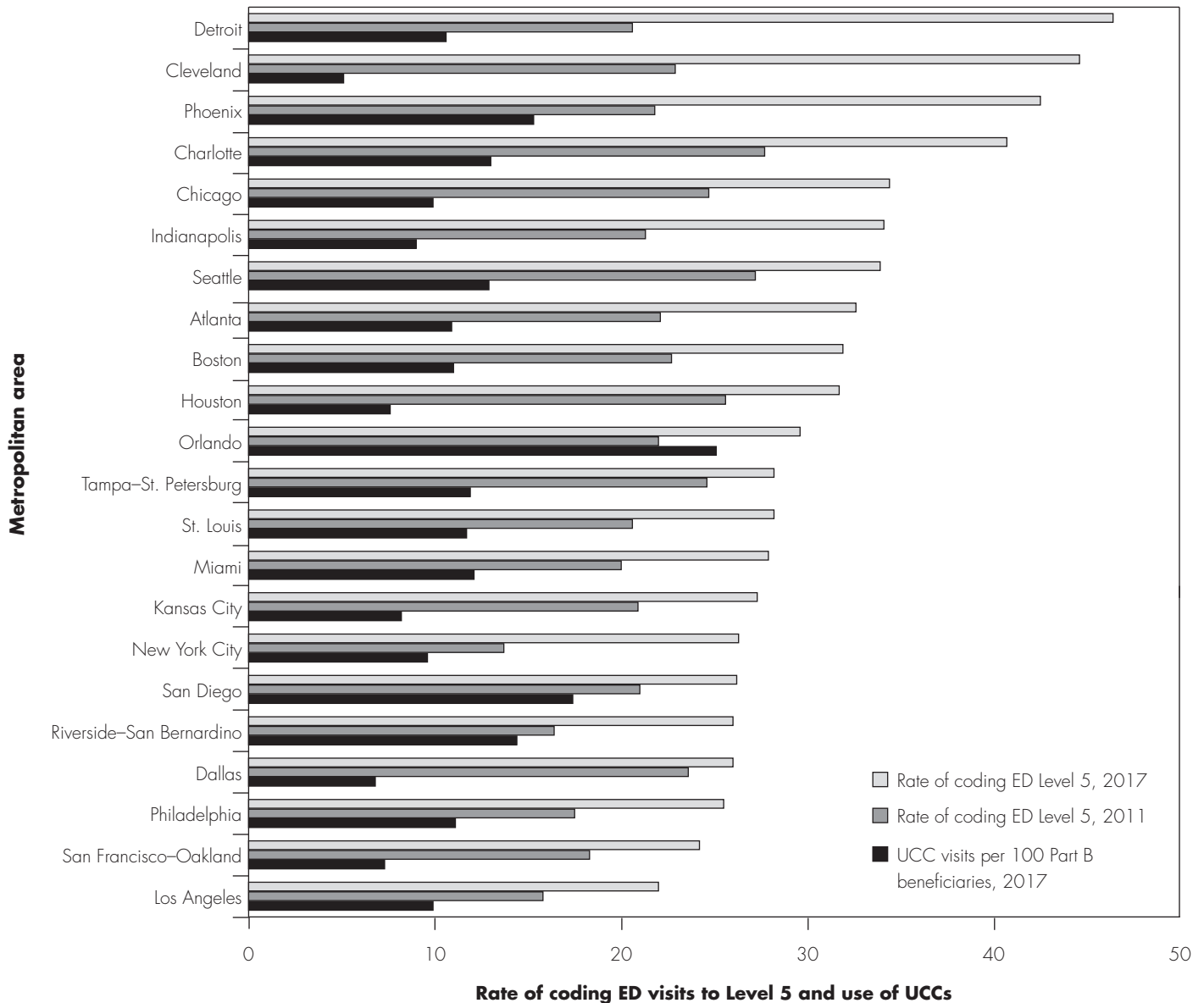
- There was substantial geographic variation in the rate of coding Level 5 ED visits.
- There was almost no correlation across geographic areas between the extent to which beneficiaries used UCCs and the coding of ED visits.

Substantial geographic variation in the coding of ED visits We collected counties into metropolitan areas, micropolitan areas, and “rest-of-state” areas, which are the counties in each state that are not in either metropolitan areas or micropolitan areas. This process resulted in 974 geographic units.²⁵ We determined the rate at which hospitals coded ED visits at each of the five levels for each geographic unit.

We found wide differences among the geographic units in how hospitals coded ED visits. Figure 11-6 (p. 404), which shows the results for the metropolitan areas that had the 20 largest populations of Part B FFS beneficiaries in 2017, illustrates the geographic variation in the coding of Level 5 ED visits. The bars that show the 2017 rate of coding ED visits to Level 5 (the lightest color bars) illustrate wide differences among the metropolitan areas: In Detroit, hospitals coded 46.4 percent of ED visits as Level 5, while hospitals in Los Angeles coded only 22.0 percent. Large differences were not unique to the largest metropolitan areas. Among the 974 geographic areas in our analysis, the rate at which hospitals coded ED visits at Level 5 ranged from 23.1 percent at the 25th percentile to 35.4 percent at the 75th percentile (data not shown). Figure 11-6 also shows wide differences in the extent to which coding of Level 5 ED visits changed over time. From 2011 to 2017, the rate of coding to Level 5 had a relatively small change of 2.4 percentage points in Dallas and a much larger change of 25.7 percentage points in Detroit.

FIGURE 11-6

Rate of coding ED visits at Level 5 varied widely among geographic areas; little correlation between use of UCCs and coding ED visits, 2017



Note: ED (emergency department), UCC (urgent care center).

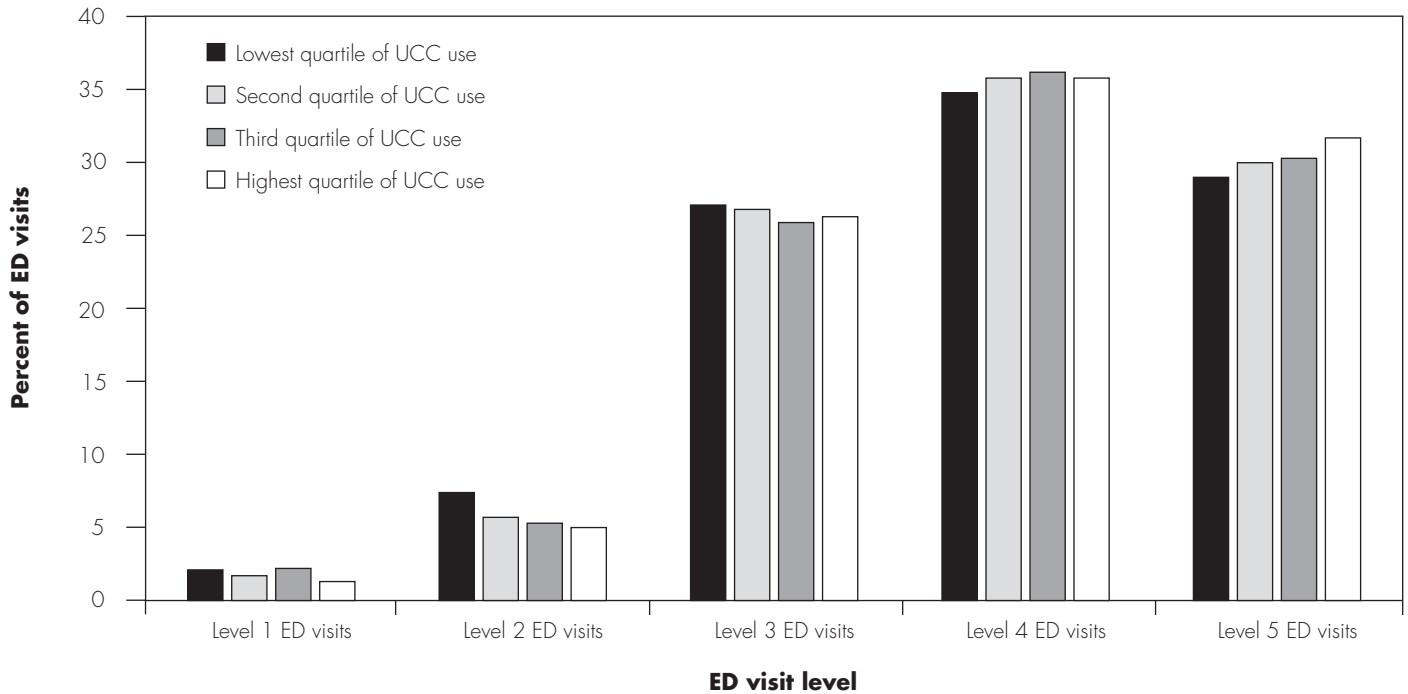
Source: MedPAC analysis of Standard Analytic Files, 2011 and 2017, and Medicare denominator files, 2011 and 2017.

Large geographic differences raise the question: If the change in coding of ED visits is due to sicker patients or more intensive care, why is the effect so much stronger in some areas than in others? For example, why do hospitals code ED visits to Level 5 at a rate of 46 percent in Detroit, but hospitals in Los Angeles code Level 5 at a rate of 22 percent? Also, why did some areas have much larger changes in coding than other areas?

Almost no correlation between use of urgent care centers and coding of ED visits We also examined the extent to which beneficiaries' use of UCCs correlates with hospitals' coding of ED visits at high levels. We determined the number of UCC visits per Part B FFS beneficiary for each geographic area and found almost no correlation between the extent to which beneficiaries

**FIGURE
11-7**

Increased use of UCCs slightly increased coding of ED visits at high levels in 48 metropolitan areas, 2017



Note: UCC (urgent care center), ED (emergency department). This figure reflects the coding of ED visits and use of UCCs among 48 metropolitan areas.

Source: MedPAC analysis of Standard Analytic Files and Medicare denominator files, 2017.

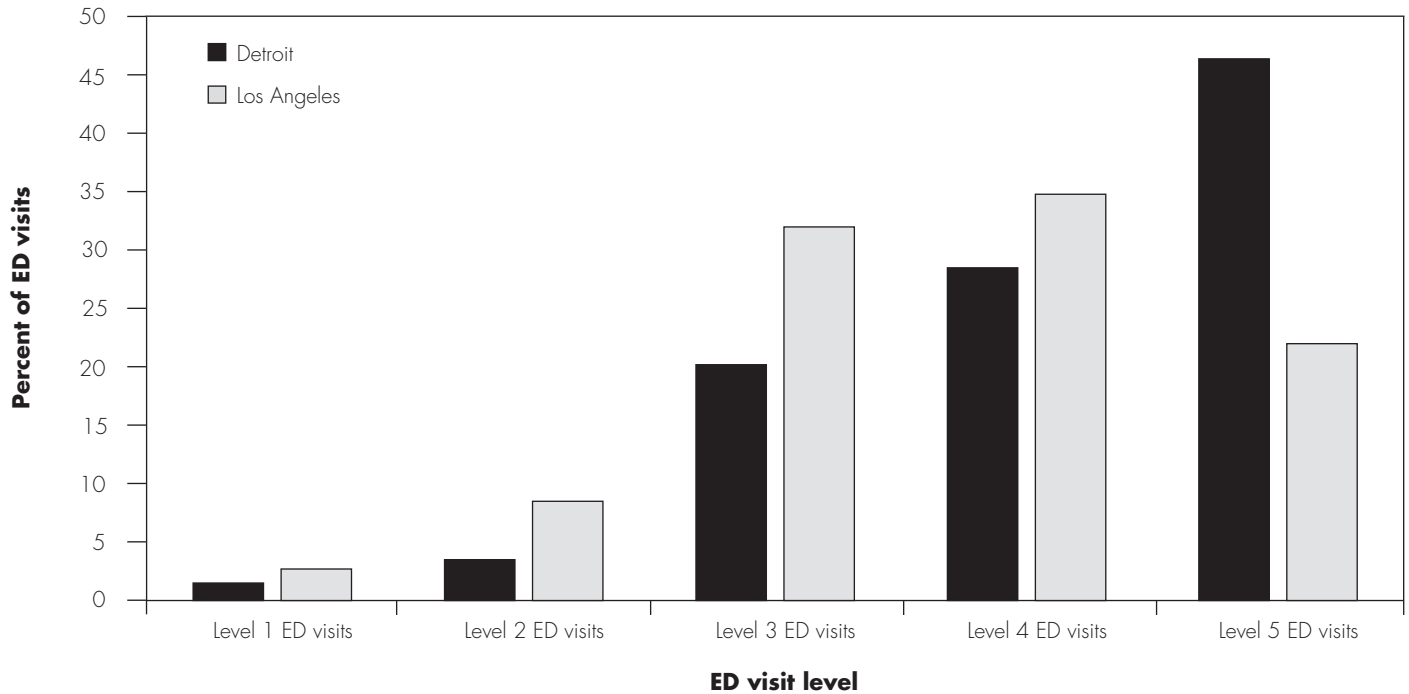
received care in UCCs and the rate at which hospitals coded ED visits at Level 5 or the rate at which hospitals coded at Level 1 or Level 2.²⁶ The 20 metropolitan areas listed in Figure 11-6 reflect this lack of correlation between coding of ED visits and use of UCCs. Detroit and Los Angeles have similar use of UCCs among Part B beneficiaries, but the rate at which hospitals code ED visits at Level 5 is much higher in Detroit than in Los Angeles.

We also evaluated how the use of UCCs affects the distribution of the coding of ED visits across the five levels. We identified the 50 largest metropolitan areas in the United States, then excluded Baltimore and Washington, DC, because the use of the all-payer system in Maryland appears to substantially affect coding of ED visits.²⁷ For the remaining 48 metropolitan areas, we determined how frequently hospitals coded ED visits in each of the five levels and the number of UCC visits per FFS beneficiary. We sorted the metropolitan areas by

number of UCC visits per FFS beneficiary and collected the metropolitan areas into quartiles. For each quartile, we determined the share of ED visits coded into each level. Results from this analysis suggest that increased use of UCCs could slightly increase the average acuity of patients seeking ED care, but the effect is not strong enough to explain the change in coding of ED visits (Figure 11-7). In 2017, the share of ED patients coded at Level 5 was 29.0 percent in the quartile with the lowest UCC use and 31.7 percent in the quartile with the highest UCC use, even though the rate of UCC use was nearly 3 times higher in the highest use quartile (17.4 visits per 100 beneficiaries) compared with the lowest use quartile (5.9 per 100 beneficiaries). Much larger differences were seen between metropolitan areas that have similar use of UCCs. Both Detroit and Los Angeles had about 10 UCC visits per 100 beneficiaries, but the coding of ED visits was very different between these two areas (Figure 11-8, p. 406).

**FIGURE
11-8**

Despite similar use of UCCs, Detroit and Los Angeles had very different coding of ED visits, 2017



Note: UCC (urgent care center), ED (emergency department).

Source: MedPAC analysis of Standard Analytic Files and Medicare denominator files, 2017.

It may be beneficial to address coding change

The literature we discussed and our data analyses do not provide a clear reason or reasons for the change in coding of ED visits. Nevertheless, it would be beneficial to address the current ED coding system to improve the accuracy of Medicare's payments for ED visits.

A manifestation of paying inaccurately for ED visits is the fact that the distribution of how frequently hospitals code ED visits across the five levels shifted from approximating a normal distribution in 2005 (Figure 11-9) to being heavily weighted to the higher levels in 2017 (Figure 11-10, p. 408).

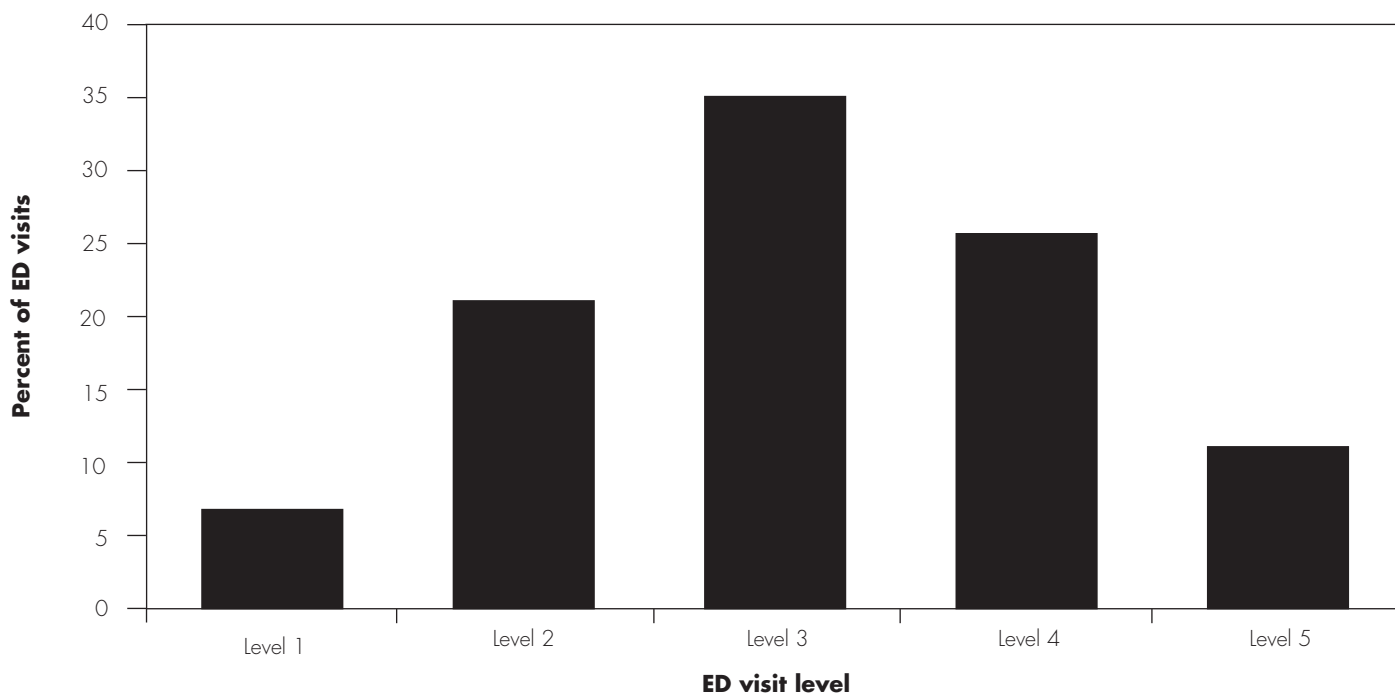
Under an approximately normal distribution, which occurred in 2005, Level 3 is the most frequent ED visit and Levels 1 and 5 are the least frequent. An approximately normal distribution suggests that the coding

system is structured such that hospitals are able to code ED patients to levels that accurately reflect the resources needed to treat those patients. The distribution for 2017 is far from normal.

When discussing the coding behavior of hospitals from 2002 through 2006, CMS stated that the distribution across the five levels appeared normal and relatively stable over time, which indicated that hospitals were billing the full range of visit codes in an appropriate manner, a reassuring finding. CMS noted that it would not expect individual hospitals to have a normal distribution across visit levels, but would expect a normal distribution across all hospitals (Centers for Medicare & Medicaid Services 2008). The importance to CMS of an approximately normal distribution for ED codes was reflected in concerns that CMS had about coding guidelines developed by the American Hospital Association (AHA) and the American Health Information Management Association (AHIMA).

**FIGURE
11-9**

Distribution of ED visit codes approximated a normal curve in 2005



Note: ED (emergency department).

Source: MedPAC analysis of 2005 cost statistics file for the outpatient prospective payment system from CMS.

CMS feared that the AHA/AHIMA guidelines would result in a redistribution of ED visits to higher levels.

As we have stated, CMS has directed hospitals to use their own internal guidelines for coding ED visits since CMS launched the OPSS in August 2000. In the early years of the OPSS, CMS recognized the potential problems with relying on hospital-level guidelines and tried for several years to develop a system of national coding guidelines for ED visits that would apply to hospitals, citing difficulties in creating clinic codes that apply to all hospitals and specialty clinics.

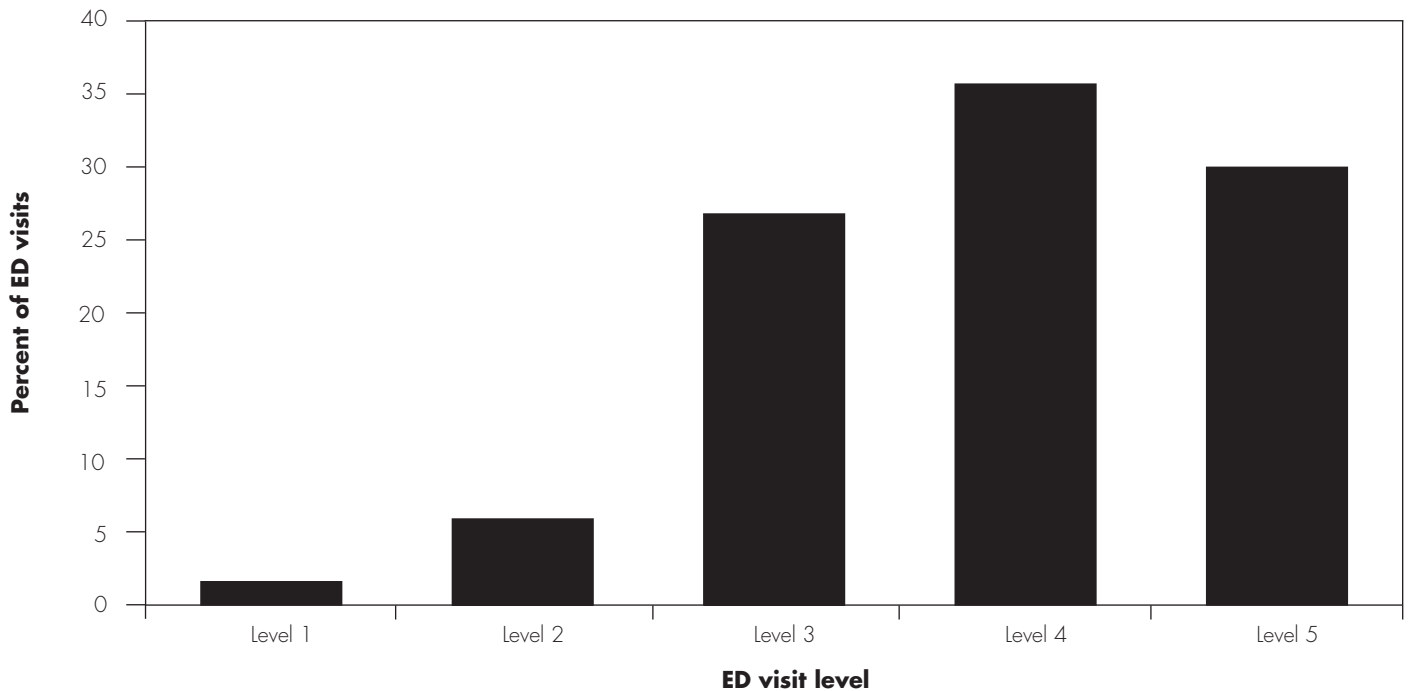
Considerable effort was made by multiple parties (including CMS) to create national guidelines for ED visits. The American College of Emergency Physicians (ACEP) created a set of national guidelines, and AHA and AHIMA worked together to create another set of national guidelines (see text box, p. 409).

In January 2002, the expert panel that advises CMS on OPSS issues recommended that CMS adopt the ACEP guidelines. CMS decided not to follow that recommendation. In the 2007 OPSS final rule, CMS indicated that the AHA/AHIMA guidelines were the most appropriate and well-developed guidelines (Centers for Medicare & Medicaid Services 2006). However, CMS identified several areas where the AHA/AHIMA guidelines needed to be refined, such as the appropriate number of levels and distinguishing Type A and Type B ED visits. In the 2008 OPSS proposed rule, CMS invited public comment on whether there was still a need for national guidelines (Centers for Medicare & Medicaid Services 2007).

Although CMS had stated that its goal was to create national guidelines, CMS also said that “this complex undertaking for these important and common hospital services was proving more challenging than we initially thought as we received new and expanded information

**FIGURE
11-10**

Distribution of ED visit codes was very different from a normal curve in 2017



Note: ED (emergency department).

Source: MedPAC analysis of 2017 cost statistics file for the outpatient prospective payment system from CMS.

from the public on current hospital reporting practices that led to appropriate payment for the hospital resources associated with clinic and emergency department visits” (Centers for Medicare & Medicaid Services 2007). CMS received a number of comments on national guidelines, including:

- A majority of commenters requested that CMS continue to work on national guidelines to ensure consistent reporting of hospital visits.
- Some commenters requested that the guidelines be implemented as soon as possible, including one commenter who believed it was absolutely necessary to create national guidelines as CMS moved toward greater packaging (of ancillary items).
- Other commenters stated it was unnecessary to implement national guidelines because CMS had

created principles for internal guidelines that were appropriate, reasonable, and sufficient.

Despite this effort, CMS was not able to develop national guidelines. CMS mentioned that, after testing models and receiving some negative feedback, it was difficult to find national coding guidelines that satisfied all hospitals. However, based on statements in regulations, the largest obstacle to creating national guidelines was not difficulties related to ED visits but to clinic visits. CMS was trying to establish national guidelines for ED visits and clinic visits at the same time. Even though ED visits and clinic visits have always had separate CPT codes and very different payment rates, CMS appeared to consider the creation of national coding guidelines for ED visits and clinic visits as a single project. When CMS ended its effort to create national guidelines, the most specific comment that CMS provided was: “Based on public comments, as well as our own knowledge of how clinics operate, it seemed unlikely

Models for guidelines for coding emergency department visits

From 2000 through 2007, CMS made an effort to create national coding guidelines for emergency department (ED) visits. Even though CMS was not able to successfully develop national coding guidelines, two sets of national guidelines were developed by different entities. The American College of Emergency Physicians (ACEP) developed one set of guidelines, and the American Hospital Association (AHA) and the American Health Information Management Association (AHIMA) combined to develop the other set of guidelines.

The national guidelines developed by ACEP have five levels. Each level reflects a different level of hospital resources used to provide patient care. The more resources a hospital uses, the higher the level.

The five levels in the ACEP guidelines are distinguished by the medical interventions provided by the nursing and ancillary staff of the hospital. The interventions that apply to the first level are basic items such as an initial assessment, dressing changes, and suture removal. The interventions that apply to each successive level include all of the interventions that apply to the previous level plus interventions more complex than those from the previous level. The

method for assigning the level of an ED visit under the ACEP guidelines is simple: The intervention that falls into the highest level determines the level of the visit. That means one intervention determines the level of the visit, the one that is in the highest level (American College of Emergency Physicians 2011).

The AHA/AHIMA model is a hybrid. The primary mechanism for assigning levels for ED visits is the interventions provided by hospital staff, but the level also depends on staff time and the complexity of the patient. Similar to the ACEP model, much of what drives the level of an ED visit is the most complex intervention, but an ED visit can be moved one level higher if hospital staff provide three or more of some interventions during a visit. Another difference between the ACEP model and the AHA/AHIMA model is that the ACEP model has five levels while the AHA/AHIMA model has three levels. AHA and AHIMA decided on three levels because under a five-level system, the same interventions could be reasonably classified into more than one level. AHA/AHIMA argued that a five-level system produced a lack of consistency in determining the correct level (American Health Information Management Association 2003). ■

that one set of straightforward national guidelines could apply to the reporting of visits in all hospitals and specialty clinics” (Centers for Medicare & Medicaid Services 2007).

Under the system where hospitals use their own internal guidelines, hospitals have steadily shifted the coding of ED visits from lower paying levels to higher paying levels. The use of hospital-level coding guidelines makes it difficult for CMS to assess and audit hospitals’ coding practices. Also, the coding practices that have resulted under these circumstances show that problems can occur, which can result in payments for ED visits that do not accurately reflect the cost of care. To improve the accuracy of Medicare payments for ED visits and to regain a distribution of coding frequency that is approximately

normal, CMS should renew its effort to develop and implement national coding guidelines for ED visits.

RECOMMENDATION 11

The Secretary should develop and implement a set of national guidelines for coding hospital emergency department visits under the outpatient prospective payment system by 2022.

RATIONALE 11

The benefits of effective national coding guidelines for ED visits include:

- Payments for ED visits would accurately reflect the resources hospitals incur when providing care in the ED setting.

- Hospitals would have a clear set of rules for coding ED visits.
- CMS would have a firm foundation for assessing and auditing the coding behavior of hospitals.

The best approach is a set of codes based on national guidelines that reflect different levels of hospital resources needed to treat patients and that facilitate monitoring and auditing to offset incentives for upcoding. A set of CPT codes that has multiple levels and is based on national guidelines would allow payments for ED visits to more accurately reflect the cost of each visit level. However, incentives to upcode are likely to be present in any set of ED codes that has multiple levels, and it will be essential for CMS to minimize these incentives in implementing a set of CPT codes with national guidelines.²⁸

CMS had previously identified four potential models for coding ED visits (Centers for Medicare & Medicaid Services 2006). CMS discussed how well each of these models could prevent upcoding. The four models that CMS considered included:

- The number or type of staff interventions. The level of an ED visit would be based on the number and/or type of interventions performed by nursing or ancillary staff.
- The amount of staff time spent with an ED patient.
- A point system where points are assigned to each staff intervention based on the time, intensity, and type of staff required for the intervention.
- Patient complexity based on diagnosis codes, complexity of medical decision-making, or the presenting complaint or medical problem.

CMS said that upcoding is always a concern when coding is based on multiple levels, but the agency believed that a point system was the least susceptible to upcoding. However, CMS also said that a point system could add burden to hospitals because it could require additional documentation (Centers for Medicare & Medicaid Services 2006).

Moving from hospital-specific internal guidelines to national guidelines would be a substantial change for hospitals. In the previous attempt to implement national guidelines, CMS did significant testing of the models it considered. As it did with the previous attempt, CMS

should thoroughly test the national guidelines before implementation, such as using empirical data to determine that the guidelines produce an appropriate distribution across the levels defined by the guidelines.

IMPLICATIONS 11

Spending

- Under current law, use of national coding guidelines would be budget neutral. Any change in spending on ED visits would trigger an offsetting change in the payment rates for all services covered under the OPSS.

Beneficiaries and providers

- We do not anticipate that this recommendation will diminish beneficiaries' access to ED services. For providers, this recommendation would improve the equity of Medicare payments by ensuring that all hospitals are using the same guidelines to code ED visits.

Conclusion

Medicare FFS beneficiaries' use of hospital EDs has increased in recent years, which has increased overall program and beneficiary spending. Policymakers may be able to slow the growth of Medicare ED spending by reducing beneficiaries' use of EDs for nonurgent care. While the use of lower cost UCCs by beneficiaries has also grown in recent years, we estimate that between 2 percent and 7 percent of Medicare ED visits could be appropriately treated in a UCC. To encourage the migration of nonurgent care to UCCs or other non-ED settings, policymakers might consider implementing policies such as educating patients and providers about choosing the appropriate care setting for their condition, measuring preventable ED visits, and encouraging EDs to better coordinate care with primary care physicians.

Policymakers may also be able to slow spending related to ED coding practices. Since CMS implemented the OPSS in August 2000, the agency has not established national guidelines for coding ED visits. Hospitals largely have been left to establish their own guidelines. Under these guidelines, hospitals have steadily shifted the coding of ED visits from lower paying levels to higher paying levels. The use of hospital-level coding guidelines makes it difficult for CMS to assess and audit hospitals' coding

practices. Also, the coding practices that have resulted under these circumstances show that problems can occur, which can result in payments for ED visits that do not accurately reflect the cost of care.

To improve the accuracy of ED payments, the Commission recommends that the Secretary implement national coding guidelines. National guidelines have been developed by ACEP and by AHA and AHIMA in a joint effort. CMS could use either or both of these models as a starting point. ■

Endnotes

- 1 We and others use the term *nonurgent care* to refer to cases that do not require immediate treatment in a hospital ED. Therefore, the term is not meant to suggest that these cases are not appropriate for UCCs or other non-ED settings.
- 2 Hospital outpatient ED spending data include beneficiary cost sharing and packaged ancillary services but not physician fee schedule spending or spending for separately paid outpatient drugs and imaging services.
- 3 In 2018, the Health Care Cost Institute reported that nationally, from 2009 to 2016, hospital ED spending for commercially insured patients increased 99 percent per capita and no change occurred in ED volume per capita.
- 4 In 2017, 377 facilities were off-campus EDs, located in 35 states and affiliated with more than 300 individual hospitals. An additional 200 stand-alone EDs were not affiliated with a hospital and were not permitted to bill Medicare.
- 5 In 1986, the Congress enacted EMTALA to ensure public access to emergency services regardless of ability to pay. Section 1867 of the Social Security Act imposes specific obligations on Medicare-participating hospitals that offer emergency services to provide a medical screening examination when a request is made for examination or treatment for an emergency medical condition (EMC), including active labor, regardless of an individual's ability to pay. Hospitals are then required to provide stabilizing treatment for patients with EMCs. If a hospital is unable to stabilize a patient within its capability or if the patient requests, an appropriate transfer should be implemented.
- 6 Hospitals' ED claims that result in a hospital admission are bundled into a Medicare severity–diagnosis related group and paid through the inpatient prospective payment system. ED visits at critical access hospitals (CAHs) are paid under the CAH cost-based payment system. About 10 percent of ED visits that do not lead to an inpatient stay become part of an observation stay.
- 7 In addition to the five ED CPT codes (99281 through 99285), which receive Type A ED payment rates, the OPSS (but not the PFS) uses five additional ED codes (G0380 through G0384) for ED facilities open less than 24/7, which receive Type B ED payment rates. The relative weights placed on Type A payment rates are based on the geometric mean cost of services in Type A EDs relative to the average cost of a clinic visit. The relative weights placed on Type B payment rates are based on the geometric mean cost of services in Type B EDs. In 2018, Type B rates were on average about 30 percent lower than Type A rates because Type B facilities do not incur the cost of maintaining standby ED staff 24 hours per day. The volume of claims paid under Type B rates is low, accounting for about 1 percent of all Medicare ED claims in 2016.
- 8 Throughout this analysis, we define the term *PFS E&M claims* to include claims containing any of the 10 PFS CPT codes for standard office visits for new or established patients and the 5 CPT codes that were in place from 2013 to 2017 for ED services. Only hospital EDs use the 5 CPT ED codes, but nearly any place of service—including hospital EDs—can use the 10 PFS CPT codes for standard office visits.
- 9 Established patients are perceived to be less complex than new patients because the clinician typically does not need to gather as much medical history from an established patient at the time of the visit.
- 10 In 2017, 90 percent of beneficiaries at physician offices were billed as established patients.
- 11 The practice of “incident to” billing affects the estimates of NPs and PAs practicing in physician offices and UCCs. Therefore, it is likely that the share of claims billed by NPs and PAs at UCCs and physician offices represented in Figure 11-2 (p. 389) would be slightly higher if we could identify claims where NPs and PAs billed under a physician identification number.
- 12 Of the 85 percent of E&M visits at hospital EDs that were billed for by physicians, the majority were for specialists. Among the 82 percent of E&M visits at physician offices that were billed for by physicians, a little more than half were specialists.
- 13 Primary physicians, specialists, nurse practitioners, and physician assistants all had similar coding behavior in UCCs across the five CPT code levels.
- 14 To apply the method to 2017 claims files, we cross-walked the ICD–9 codes identified by the authors to the corresponding ICD–10 (International Classification of Diseases, Tenth Revision) codes.
- 15 Researchers at New York University (NYU) developed a method for categorizing ED claims into one of nine categories of emergency and nonemergency claims—referred to as the NYU algorithm. Using the NYU algorithm, we estimated that there were 3.1 million nonemergency claims from hospital EDs in 2017, or 14.6 percent of hospital ED E&M cases. From 2013 to 2017, the number of nonemergent claims was largely unchanged. The NYU algorithm is a widely used and

- tested method of categorizing ED claims that uses the ICD–9 and ICD–10 codes present on Medicare claims to identify the probability that individual claims will fall into one of NYU’s nine categories reflecting the extent to which individual cases were emergency: ED care needed—not preventable; ED care needed—preventable; emergent—primary care treatable; nonemergency; alcohol; drug; injury; psychiatric; unclassified (Ballard et al. 2010, Gandhi and Sabik 2014, Jones et al. 2013). Based on these probabilities, we estimated the proportion of claims in each of the nine categories.
- 16 Other providers also furnished nonurgent care, but each accounted for less than 1 percent of claims. Retail clinics accounted for 13,000 claims involving nonurgent care. Other types of independent, state, or federal clinics and Federally Qualified Health Centers collectively accounted for approximately 12,000 claims involving nonurgent care.
 - 17 To identify the concentration of UCCs by MSAs, we obtained the number of UCCs by MSA from the Urgent Care Association of America and identified the top 50 MSAs by resident population. All 50 MSAs have more than 1 million residents. We express the concentration of UCCs in terms of UCCs per 100,000 residents. Our three “high-concentration MSAs” were among the highest of the 50 MSAs in terms of UCCs per 100,000 residents, but not the highest. The three “low-concentration MSAs” were among the lowest of the 50 MSAs in terms of UCCs per 100,000 residents, but not the lowest. We also chose these six MSAs based on their collective geographic distribution.
 - 18 In 2017, we estimate that approximately 93 percent of UCC claims involving nonurgent care were served in independent UCCs, and 7 percent were served in UCCs affiliated with a hospital. Also, the average spending per encounter in hospital-affiliated UCCs will likely decrease slightly in 2019 because CMS implemented a policy that decreases the payment rate for clinic visits provided in off-campus provider-based departments of hospitals.
 - 19 Beneficiary risk scores reflect the CMS hierarchical condition category (CMS–HCC) model. Implemented in 2004, CMS uses these risk scores to adjust capitated payments to Medicare Advantage health care plans. CMS–HCC risk scores are based on the conditions diagnosed for the beneficiary in the prior year.
 - 20 UnitedHealth exempts cases from the policy if the case results in a hospital admission, if it is a critical care patient, if the patient dies in the ED, or if the patient is a child under the age of two.
 - 21 The Mayo Clinic Health System in Minnesota, Arizona, and Florida offers a nurse help line to patients, which is described on their website at <https://mayoclinichealthsystem.org/>
 - nurse-line. Novant Health in Virginia, North Carolina, and South Carolina offers a nurse help line to patients, which is described on their website at <https://www.novanthealth.org/home/services/emergency/novant-health-care-line.aspx>.
 - 22 Title 42 of the Code of Federal Regulations (Section 447.54) defines the Medicaid cost-sharing rules related to nonemergent care provided at hospitals. In addition, Section 447.56 also states that “Before providing nonemergency services and imposing cost sharing for such services, hospitals must: a) Inform the individual of the amount of his or her cost sharing obligation for non-emergency services provided in the emergency department, b) Provide the individual with the name and location of an available and accessible alternative nonemergency provider, c) Determine that the alternative provider can provide services to the individual in a timely manner with the imposition of a lesser cost sharing amount or no cost sharing if the individual is otherwise exempt from cost sharing, d) and provide a referral to coordinate scheduling for treatment by the alternative provider.”
 - 23 Physicians also code ED visits into one of five levels, and their coding has also shifted to higher levels, but not to the same extent as hospitals. For physicians, the share of ED visits coded as Level 5 increased from 49.3 percent in 2011 to 55.5 percent in 2017.
 - 24 In our analysis of claims data, we also found that the number of drug administrations per ED visit increased from 2011 to 2017. In addition, in our analysis of NHAMCS data, we found that from 2011 to 2016 the rate at which ED patients saw an attending physician decreased and the rate at which they saw nurse practitioners and physician assistants increased.
 - 25 We excluded geographic areas that include counties located in Maryland. Coding of ED visits by these hospitals was very different from the coding of other hospitals, likely because of rules from the all-payer rate-setting system used by Maryland. The geographic areas excluded from our analysis were the Baltimore metropolitan area, the rest-of-state area of Maryland, and the Washington, DC, metropolitan area.
 - 26 In 2017, the correlation coefficient between the rate at which beneficiaries used UCCs and the rate at which hospitals coded ED visits at Level 5 was –0.01, and the correlation coefficient between the rate at which beneficiaries used UCCs and the rate at which hospitals coded ED visits at either Level 1 or Level 2 was 0.05.
 - 27 The remaining 48 metropolitan areas had about 43 percent of all ED visits and 43 percent of all FFS Part B beneficiaries.
 - 28 Obviously, upcoding would not be an issue if CMS implemented a single CPT code for all ED visits. CMS previously proposed a single code that would have been

implemented in 2014 (Centers for Medicare & Medicaid Services 2013). In a comment letter, the Commission strongly opposed a single CPT code. The leading reason was that hospitals would either benefit or be disadvantaged based on

the health of their ED patients (Medicare Payment Advisory Commission 2013). Based on stakeholder input, CMS chose not to implement this policy.

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