



The Evidence on Provider Responses to Payment Rate Cuts

Implications for Access to Care under Public Option or Capped Rate Policies

Stacey McMorro and Linda J. Blumberg

May 2023

As debate over health care reform continues, concerns remain that public option and capped provider payment rate policies could impinge on access to or quality of care. In this brief, we outline the design decisions likely to impact each policy's effects on provider revenues and the variation in current provider circumstances that would lead to differing effects across markets and types of providers. We then summarize the research literature examining provider responses to changes in prices and draw implications for public option and capped rate reforms.

We find that the likely effects of public option and capped rate policies on provider participation and patient access are more nuanced than critics suggest. Design choices such as which insurance markets would be included, the relative cost of other insurance options, the initial price level and subsequent updates of administered rates (or caps), and the pre-reform payer mix in the market would significantly impact the degree to which providers would be affected.

Existing studies examining the effects of provider price changes on access to and use of care rely largely on experience with the Medicare and Medicaid programs, making direct application to currently discussed reforms difficult. Plus, there is limited research on whether changes in service utilization resulting from changes in provider prices have implications for health outcomes. To date, this body of research has produced mixed findings on the implications of various price changes for access and use.

However, based on the weight of available evidence, one would expect that public option and capped provider payment rate reforms would reduce use of hospital care, particularly in the most-affected areas (those with high hospital prices). But, one would not anticipate that quality of care or health care outcomes would suffer as a consequence. One could anticipate physician service volume would increase somewhat under the policy changes, but the volume effect would vary significantly by

condition and physician specialty. While such increases in volume of physician care are unlikely to affect patient outcomes, they are not likely to affect access to necessary care.

Introduction

For decades, US health care reform efforts focused on expanding access to affordable health insurance coverage and needed health care services. Efforts began in 1965 with the introduction of Medicare and Medicaid to provide coverage for elderly adults and low-income families, then were followed by numerous incremental efforts, including Medicaid expansions for children and pregnant women in the 1980s and 1990s. The Children’s Health Insurance Program was enacted in 1997, and the Affordable Care Act in 2010. As of the first quarter of 2022, though, 9.6 percent of nonelderly Americans remain uninsured (Cohen and Cha 2022) and several coverage expansion opportunities remain. However, both to indirectly expand access and to directly free public and private resources for other priorities, recent policy discussions have included broader efforts to contain health system costs.

Many recent cost-containment proposals focus on reducing the prices private insurers pay to health care providers because of growing consensus that these prices greatly drive high and rising US health care spending (Anderson, Hussey, and Petrosyan 2019; Blumberg et al. 2020; CBO 2022). Evidence suggests, for example, that commercial insurers pay hospitals about twice the rate Medicare pays for inpatient services, with even higher markups for outpatient services. Commercial insurers also pay physicians about 20 percent more than Medicare, on average, with some specialties receiving up to three times the Medicare rates from private plans, on average.

Both federal and state proposals have aimed to address these high prices. Proposals include introducing a public option to compete with private insurers and directly capping private insurers’ provider payment or growth rates. Every effort to reform the health care system encounters trade-offs, and cost containment strategies are no exception. However, their effects can be challenging to predict. Reducing payments to providers through a public insurance option that uses prices lower than the average commercial insurer may rein in health care spending and improve access to affordable coverage.

But, depending upon their structure, such approaches may threaten enrollee access to services, as decreased profits may cause providers to reduce the amount of care they provide. Alternatively, providers could limit the effect of lower prices on their incomes by increasing the volume of services they provide to compensate for lower payment rates (McGuire and Pauly 1991). If providers maintain their level of services, additional demand resulting from lower prices may impede access for some consumers, at least in the short run. Multiple analyses have considered the effects of proposals to lower provider prices via a public option or a cap on private payment rates, but most focus on potential premium and insurance coverage effects without explicitly measuring possible provider participation and consumer access effects (Blumberg et al. 2020; Fiedler 2020; Holahan and Simpson 2021a, c).

In this brief, we summarize the research on federal public option and capped payment rate proposals. We focus on how specific policy details, such as included insurance markets, rate-setting

methods, and enforcement mechanisms, might affect provider participation and access to care. We also review findings from studies of hospital and physician responses to changes in payment rates to provide insights on the providers, services, geographies, and patients most likely to experience access effects.

The research literature must be interpreted cautiously, however. Much of the existing research discussed below pertains to Medicare, a program serving those ages 65 and over and some people with disabilities. Medicare beneficiaries account for approximately one-third of the US population, and they use more medical care, on average, than others. Experiences under this program are useful to consider but are challenging to directly extrapolate to reforms targeting other insurance markets and population groups. Studies focused on changes to Medicaid payment rates may be even less applicable to the implications of public option and capped rate proposals, particularly with regard to physician prices. This is because Medicaid programs pay physicians at the lowest rates of any insurers in the country, well below payment rates used by Medicare. In addition, the Medicaid population has the lowest average income of any group of insured people in the country (Zuckerman, Skopec, and Aarons 2021). Little research is available on how providers respond to changes in price from private insurance: prices paid by private insurers are difficult to obtain, and public policy changes affecting provider prices are generally focused on public insurance programs.

As discussed below, different designs of payment reforms in the commercial insurance market can have different implications for provider revenue and provider responses. Limiting prices for more of the population will likely have more significant financial implications for providers. In other words, limiting changes in provider prices to a smaller insurance market (e.g., only those enrolling in a public option through the individually purchased insurance market) would be less disruptive to providers' finances than limiting prices for broader swaths of the population (e.g., all those enrolled in employer-sponsored insurance plans). Policies affecting relatively small numbers of people may therefore have limited implications for provider supply of services. However, even a policy affecting only a limited population could affect access for participants in plans that pay lower prices if a significant share of providers refuse to participate. Still, providers with less ability to avoid lower-paying patients may feel less able to respond by lowering supply.

Cost-Containment Options with Potential Implications for Access to Care

Public Option

A public option has been proposed in various forms but was prominently discussed preceding the passage of the Affordable Care Act. Active proposals to implement a public option, which exist at the state and federal levels, would essentially provide a government-sponsored insurance plan with administratively set provider payment rates for consumers in the private health insurance market. Assuming that government payment rates, as well as administrative costs, would be lower than those typically negotiated between providers and commercial payers, a public option could provide eligible

consumers with lower-cost insurance. Moreover, depending on the policy details, a public option could lower premiums among private plans if insurers in concentrated markets competed to maintain market share (Blumberg et al. 2019).¹

Public option opponents have raised concerns that lower provider payment rates would seriously threaten access to care (Nighohossian and Quddus 2021). However, several design features could affect the nature and magnitude of any possible impact on providers and any resulting access issues (Blumberg 2021). Moreover, as these design issues would interact with characteristics of the specific markets and populations affected by the reform, the net impacts would vary geographically and could be positive for at least some. Central factors affecting the outcomes include the following:

- Initial public option provider payment rates and the nature of payment rate updates over time (including any phase-in period to reach target rates and any rate adjustments permitted as a response to experience with new rates)
- The size and nature of the markets into which a public option is introduced, for example, nongroup only, nongroup and small employer markets only, less competitive provider markets only, and rural exceptions. Market characteristics that would affect impact include the following:
 - » pre-reform levels of competition, premium prices, and provider payment rates compared with the public option, as lower-priced markets will feel less impact
 - » share of those previously insured enrolling in the public option, as higher enrollment will tend to increase impact
 - » size of the previously uninsured population enrolling in the public option, as the public option will likely raise revenue paid to providers on behalf of those otherwise uninsured
 - » share of the provider payment mix reliant upon Medicare and Medicaid as opposed to commercial insurance, as markets dominated by public insurance will tend to be impacted less by lower private payment rates
- Provider participation regulations and enforcement mechanisms²
- Insurer participation regulations and enforcement mechanisms³

Capped Rates

Rate capping, a policy that may be either a companion or an alternative to a public option, would directly limit provider payment rates from private insurers. This approach would require providers participating in specific insurance markets to accept payment rates at or below a government-designated level, thereby reducing overall system costs and lowering insurance premiums. The effect on overall provider revenue would vary depending upon where the caps are set relative to the existing distribution of market prices. Compared with a public option reform using the same level of prices, however, capped

payment rates can be expected to have a larger impact, as enrollees in most or all insurance plans in a given market would be affected.⁴

Like public option approaches, capped provider payment rate policies can vary depending upon which insurance markets are included. Unlike public option proposals, however, capping payment rates provides flexibility to design a policy that includes all providers or is limited to specific types of providers.⁵ A broader approach affecting all physicians may cap the average price charged per relative value unit (RVU) within each insurer-provider contract, for example. Such strategies would require all insurers to reimburse providers based on a more uniform payment structure (e.g., diagnostic-related groups for hospital-based care and RVUs for physician office-based care).⁶

Payment rates could be capped anywhere along the distribution of current private insurer rates. For example, setting the rates at the 75th or 80th percentile of the current distribution would lower the highest premiums with little disruption to existing markets, and the growth rates of such caps could be constrained to moderate premiums and health care spending over time (Blumberg 2021). A central advantage of capped provider payment rates over a public option is that consumers could obtain the full benefit of lower provider payment rates while being enrolled with their preferred insurer; enrollment in a separate government administered plan would not be necessary. In addition, capped provider payment rates would likely result in more private insurers entering or staying in markets, compared with a public option implemented alone.⁷

Savings versus Access: Trade-offs in Public Option and Capped Rate Reforms

Implementing either a public option or a capped provider payment rate reform would involve the government using its leverage to set or limit provider payments. For a public option, these rates would apply to a government-administered plan (or plans) alone. For capped rates, the caps would apply to all private insurance plans in the affected markets. To effectively set or cap payment rates to reduce spending while preserving sufficient quality of and access to care, the government has to predict how insurers and providers are likely to respond to a particular payment schedule. Will providers supply more, fewer, or the same level of services of a given type in the markets included in the reform and in other markets in which they participate?

Would those changes necessarily affect patient health outcomes, and if so, how? After all, not all reductions in services will negatively affect health. Reductions in low-value services may improve health. Could providers use their more limited bargaining power in response to these reforms, and if so, how could such responses affect overall costs and health outcomes? If private insurers are faced with greater competition from a public option, are they likely to remain in the affected insurance markets or exit them? Will consumers be affected if higher-priced insurers exit markets? If insurers in concentrated provider markets can utilize capped payment rate schedules, are more insurers likely to remain in or enter these markets, thereby generating more competition? If so, could systemwide savings be further increased?

When payment rate levels are set, either a public option or a capped payment provider rate reform would face trade-offs between broad voluntary provider participation and the magnitude of possible cost containment (Blumberg 2021). The larger the decreases in payment rates, the greater the potential cost savings, but also the greater the potential for providers to opt out of participating, assuming they are not required to do so. In the context of a public option, if payment rates are set too low, providers may avoid participating with the government plan entirely. In the context of capped payment rates, if rate caps are set too low, providers may reduce the quality of care provided or avoid patients who are the costliest to treat (Chernew et al. 2020). Under either policy, establishing or maintaining broad voluntary provider networks will be more challenging the lower the payment rates or caps are set.

Access to care and provider supply already vary geographically. For example, the number of providers (and insurers) is significantly more limited in many rural areas than in urban or suburban ones, creating concerns that rural residents do not have adequate access to medically necessary services. Consequently, public option or capped payment rate reforms could be implemented differently depending upon local conditions. For example, payment rates or caps could be set higher in limited access areas to prevent further disincentivizing provider participation.⁸

Monitoring changes under implementation will be fundamental to discovering the implications of either reform for quality and access. The ideal provider price schedule for balancing cost, quality, and access is currently unknown. But, maintaining that long-lasting negative consequences will result from inadvertently under- or overpricing some services assumes the policy cannot be adjusted over time. As suggested elsewhere (Blumberg 2021), an active administrative body that collects and analyzes data in the affected markets could be empowered to adjust prices as appropriate. Moving more slowly from current payment rates to new target caps, to allow for the implementation of data collection and monitoring systems, would decrease potential impacts on providers and any consequent disruptions to the delivery system but would also decrease cost savings (Blumberg 2020).

Evidence on Provider Response to Price Changes

Much of the research evidence on the effect of changes to physician and hospital prices on use of medical care has been produced using data from Medicare and Medicaid. This is because data on prices paid for care under these programs are the most consistently collected and available. Medicare's fee-for-service reimbursement prices are the most readily available to researchers and are federally administered. Medicaid fee-for-service prices, however, vary by state. Managed care organizations participating in Medicare and Medicaid do not make prices publicly available and so are generally not included in studies, although there is research evidence that prices paid through managed care are often closely associated with the fee-for-service rates (GAO 2014; SAMHSA 2013). Private insurers often consider their prices proprietary, and thus these data are not generally accessible. These prices vary considerably by insurer, health plan, and provider, unlike the public insurers' pricing structures.

The use of Medicare and Medicaid data to study provider responses limits the applicability of available research to the question of how providers would respond under a public option or capped

payment rate reforms. Still, we summarize some of the most rigorous of these studies to get a general sense of what they might imply for other reforms that would impact provider prices for a different segment of the population.

Hospitals

The literature on hospital responses to changes in prices relies primarily on changes in Medicare prices, yet studies vary in focus and scope. Some take spillover effects into account for those insured outside the program experiencing the price changes. Some are national in scope, while others use data from a limited number of states. Different studies rely on inpatient or outpatient hospital data. Many are structured to exploit the decrease in Medicare hospital prices that resulted from the 1997 Balanced Budget Act, a change that created a useful natural experiment for analysts. The findings vary. Critically, there is limited analysis to clarify whether decreases in hospital use associated with lower prices, when identified, have an impact on patient health. Those that do attempt to examine quality of care effects tend to focus on the implications for patients experiencing myocardial infarction.

White and Yee (2013) used Medicare inpatient hospital data from 10 states over 1995 to 2009. Their approach exploits the decline in real Medicare hospital prices that resulted from formula changes, chiefly those included in the 1997 Balanced Budget Act. The price changes varied across the country by market and by hospital type. The authors estimated that a 10 percent decrease in Medicare prices was associated with a drop in hospital discharges among Medicare beneficiaries of 4.6 percent and a decrease in staffed beds of 6.3 percent. No evidence showed that case mix or length of stay varied with price changes. However, the study was unable to draw any conclusions as to whether the decrease in hospital discharges affected health outcomes for the elderly or whether use of outpatient care increased in response to compensate.

A few Medicare studies have analyzed the effects of Medicare hospital price changes not only on Medicare beneficiaries, but also on enrollees in Medicaid or private insurance. He and Mellor (2012) used Florida hospital data to study the effect of Medicare's implementation of a prospective payment system for outpatient hospital care on the volume of outpatient surgical procedures. For 10 outpatient surgical procedures, they found weak evidence that the resulting Medicare rate cuts affected the volume of these procedures provided to Medicare enrollees. Only 3 of the 10 were found to have a statistically significant volume response, and only one of those had a response significant at the .05 level or better. However, the researchers did find that Medicare rate cuts increased the private fee-for-service volume of these surgical procedures. Hospitals with a higher share of their patients from Medicare had larger increases in private fee-for-service volume and smaller decreases in the volume of Medicare patients served.

Although the scope of He and Mellor (2012) is limited to one state and 10 outpatient surgical procedures, it suggests that lower prices paid through a public option or capped rates may have implications for patients reimbursed at higher prices. As this study indicates, the magnitude of any effect of a price-decreasing reform on those insured through private plans would certainly vary by the payor mix of a given hospital (e.g., hospitals that have smaller shares of patients enrolled in a public

option or with capped rates would have smaller responses for both enrollees in the new program and others receiving care) and the size of the price change (e.g., high-priced hospitals for which the public option or capped rates represent a large price change would respond more than lower-priced hospitals). However, the findings apply only to people insured through private fee-for-service, not managed care, plans, a diminishing group.

White (2014), using the same data as his 2013 study with Yee mentioned above, extended that earlier analysis to examine possible spillover effects. He found that tighter payment policies for Medicare from 1995 to 2009 helped to slow hospital utilization more broadly for nonelderly patients (those not directly impacted by the reform). Areas with larger decreases in real Medicare prices had larger decreases in hospital use among the nonelderly. The estimates showed that a 10 percent decrease in Medicare hospital prices was associated with approximately 5 percent fewer discharges for those under 65 and with a larger percentage decrease in hospital bed days. However, the Medicare price changes were not found to be related to length of hospital stay or case mix for the nonelderly. Again, White's approach cannot draw conclusions about the implications of this relationship for health outcomes for the nonelderly and does not account for any possible increase in outpatient services provided. However, it does indicate the possibility that hospitals facing price reductions from a public option or other reform may become more efficient by reducing underlying costs (such as excess bed capacity) and thereby increasing efficiencies for all patients served, not only those for whom payors reimburse at lower prices.

Dafny (2005) analyzed a 1988 Medicare reform that increased prices for 43 percent of Medicare hospital admissions. This analysis found that hospitals responded to the price changes by upcoding their patients to diagnosis codes that experienced the largest increases in price. Dafny identified particularly strong behavioral responses among for-profit hospitals compared with nonprofit hospitals. She did not find evidence that the price increases led to an increase in intensity of the services patients received (as measured by total costs, length of stay, number of surgical procedures, and number of intensive care unit beds) or the quality of care (as measured by in-hospital mortality rate). The analysis indicated that the hospitals spread additional funds from upcoding across all admissions and did not increase the volume of the admissions differentially for those with larger price increases.

While the applicability of Dafny (2005) to currently debated price reforms is somewhat limited by the age of the data and the fact that the price changes analyzed were increases, not decreases, it highlights several considerations for today's policymakers. First, hospitals can be sophisticated in upcoding hospital admissions to more profitable diagnoses, and for-profit hospitals may be the most likely to employ such strategies. In other words, audits and other oversight tactics may be critical if public option or capped rate reforms are to achieve the cost savings envisioned. Second, hospitals can and have responded to price changes in ways that do not appear to affect access or quality of care in services for patients.

White and Wu (2013) expanded further on the dataset used in White and Yee (2013) to identify mechanisms through which hospitals respond to Medicare price cuts. This study allowed for the evaluation of long-term effects on hospitals by using cumulative simulated price impacts. White and Wu

found that Medicare price cuts are associated with reductions in overall hospital revenues that exceed the direct effects of lower Medicare prices. These findings are consistent with price spillover effects to people insured through other programs and private insurance. Further, findings are consistent with the notion that hospital costs are flexible, not fixed, and that many hospitals can adjust costs and become more efficient in the face of at least some price reductions. Again, the study is limited in its inability to measure any price impacts on patient outcomes.

Looking at nonprofit hospitals specifically, White and Wu (2013) found that reductions in hospital revenues attributable to the reduction in real Medicare prices between 1996 and 2009 were nearly offset (90 percent) by the hospitals lowering their operating expenses. Profits for these hospitals remained unchanged. However, findings were different for for-profit hospitals. Among for-profits, the lower revenue resulting from Medicare price changes resulted in lower profits of the same amount.

Consistent with the notion of flexible underlying hospital costs, Garthwaite, Ody, and Starc (2022) found that hospital investments are intended to attract privately insured patients, those whose insurers tend to pay hospitals at the highest rates. Here, the authors interpreted their findings as indicating that higher prices and quality of care are jointly determined; when hospitals see themselves as able to attract higher-paying patients, they will improve quality to do so. The study analyzed the potential patient mix in each hospital's geographic location and measures the authors termed "quality investments."⁹

Garthwaite, Ody, and Starc (2022) did find strong associations between the investment measures included and hospitals' potential to attract privately insured (i.e., higher-paying) patients. The study suggests that decreasing payments beyond Medicare and Medicaid, for instance, through a public option, could decrease hospital incentives to invest in higher quality. While the authors referred to these measures collectively as quality investments, some may increase costs without necessarily improving quality of care, including hiring cardiologists from a limited set of medical schools and adopting various technologies. The other measures more consistent with indications of quality are limited, with a particular emphasis on cardiac patients. However, the authors did reinforce a central finding of White's work, that changes in provider payment (such as those that could result from introduction of a public option or capped provider payment rates) are likely to affect strategic investments by hospitals, and thus the underlying costs of providing care. Garthwaite, Ody, and Starc also acknowledged that additional work is needed to identify the implications of price changes for patient outcomes.

Three studies reviewed here relied on the hospital price cuts initiated by the Balanced Budget Act of 1997 to assess possible impacts of decreased hospital revenue on patient outcomes. Two of these studies—Volpp and coauthors (2005) and Seshamani, Schwartz, and Volpp (2006)—found no evidence that the decrease in Medicare hospital prices led to adverse health outcomes for the limited conditions studied. The Volpp study analyzed process of care measures and in-hospital mortality for myocardial infarction, using data from 1996 to 2001 that included more than 236,000 patients receiving care in 208 hospitals. When comparing hospitals that had the largest price decreases with hospitals that had the smallest price decreases under the Balanced Budget Act, the authors found no consistent worsening of care in the high-decrease hospitals. Here they considered time to thrombolytic therapy, balloon

inflation, medication use on admission, medication use at discharge, and mortality. They also found no systematic differences in treatment or outcome between the insured and uninsured.

Likewise, Seshamani and coauthors examined the rate of change in mortality between 1997 and 2000 across 370,000 hospital episodes and found no consistent, significant differences between hospitals showing high and low impact from the Balanced Budget Act. The study data included Medicare and uninsured patients with one of four conditions (hip fracture, stroke, acute myocardial infarction, and gastrointestinal hemorrhage) receiving care in general acute care hospitals in Pennsylvania. Mortality findings were consistent for the uninsured as well, meaning hospitals experiencing larger Medicare price cuts did not have higher mortality among the uninsured than those experiencing smaller price cuts. The analysts found no relationship between price impact of the law and length of stay in the hospital, nurse staffing, or the number of uninsured treated. The authors found that hospitals facing larger price cuts reduced operating expenses to maintain their prior operating margins, but these reductions did not affect patient mortality. Both the Volpp and Seshamani studies indicate that hospitals can adjust their underlying costs to at least some price cuts without compromising quality of care.

While the evidence that hospital price cuts have implications for patient outcomes is currently limited, a recent study by Singh and Venkataramani (2022) raises some warnings about the potential implications of hospital cost cutting for racial disparities in outcomes. In their study of two large hospitals in the southeastern US, they evaluated the relationship between in-hospital mortality and hospital capacity. Singh and Venkataramani found that as hospitals approached capacity, in-hospital mortality for all patients increased. However, mortality for Black patients, particularly women and those who were uninsured, increased more than for white patients. They attributed the increased mortality to longer wait times resulting from demand for care exceeding resources and Black patients waiting the longest at high-strain times.

To the extent that price-reducing reforms lead hospitals to reduce their underlying costs by reducing staff and other resources necessary to provide care, Singh and Venkataramani (2022) highlight the importance of managing patients across local hospitals and centers of care that may have additional capacity at high-strain times, as well as ensuring that resources are not made differentially available to people of any race, gender, or income level relative to another. These findings indicate that when hospital capacity is tight, implicit and explicit racial bias may become exacerbated.

Physicians

The literature on physician responses to changes in reimbursement varies in its implications for access to care under a public option or capped rates. Because these studies use data from different programs (Medicaid versus Medicare), some focus on particular services or physician specialties, and some include spillover effects to other groups of insureds, they highlight the likelihood that the reforms under consideration could have different effects in different circumstances. In addition, few of the studies analyze the implications of changes in utilization for patients' health care outcomes. One must also be cautious drawing conclusions from findings on the specific populations enrolling in the Medicare and

Medicaid programs for different populations enrolling in private insurance or a new public option structured most like private insurance.

Some studies of the Medicare program indicate that reductions in prices paid to physicians can drive physicians to increase utilization of care. Such “volume offsets” are not found to eliminate savings from lower prices, but they do reduce the expected savings. Depending upon the circumstances, if volume tends to *increase* somewhat in response to price reductions, concerns about public option and capped rate reforms reducing access to care might reasonably be tempered. Others find positive associations between prices and utilization, but not for all people or all services.

For example, the Congressional Budget Office (CBO 2007) found that a *decrease* in physician revenues resulting from a Medicare payment rate cut would result in an *increase* in the volume or intensity of the services provided. This analysis found that a drop in revenue of \$1,000 per year was associated with an increase in services amounting to \$280 per year. CBO found a corresponding effect if physician payment rates were increased; in that case, physicians reduced the quantity of services they provided. This 28 percent behavioral response to a change in price could be the consequence of a combination of responses by physicians and patients, and the results were consistent with prior literature.

Similarly, a more recent study by Brunt and Hendrickson (2021) using Medicare data on office visits for physicians treating Medicare patients found that physicians whose reimbursements *decreased* then *increased* the services they provided. These findings were in the same range as those found by CBO (2007), with 27 to 33 percent of the reduction in reimbursements offset by changes in provider behavior. Neither of these studies was able to provide insights into how these changes in service provision related to the appropriate level of care.

While some other Medicare-based studies have found that higher prices are associated with higher utilization of medical services, the nuances associated with these studies also moderate the concerns associated with their implications for public option and capped rate reforms. Chen and Lakdawalla (2019) found that increases in Medicare reimbursement for physicians were associated with increases in the provision of physician services to Medicare patients, but the increases in use were concentrated among higher-income patients. The average price elasticities of use ranged from 0.02 to 0.18 for a given physician, meaning that use barely changed for patients in the bottom 10th percentile of socioeconomic status and increased modestly for patients at the 90th percentile. The studied changes in Medicare payment policy increased utilization by 10.4 percentage points more for higher-income patients.

Findings from Chen and Lakdawalla (2019) apply to price decreases as well, as the price shocks created by the policies used to identify the effects varied geographically. To the extent that public option enrollees are expected to have lower incomes, the variation in physician responses identified in this study suggests that a physician price cut may have little to no effect on access to care for the average public option enrollee. In addition, there is no indication from this study that the modest changes in service use observed among higher-income patients would have implications for the quality of care they receive.

A study by Clemens and Gottlieb (2014) used a broader set of data (random 5 percent of all Part B claims) on Medicare beneficiaries from 1993 to 2005. This study exploited a 1997 change in how physician prices were adjusted geographically under the program, a reform that created significant price changes across the country, both positive and negative. The researchers found that geographic areas that experienced larger physician price shocks experienced significant increases in the supply of health care services to Medicare beneficiaries. Clemens and Gottlieb estimated that, on average, a 2 percent increase in payment rates was associated with a 3 percent increase in care provided. They also found that elective procedures were substantially more likely to increase than less-discretionary procedures; two-thirds of the supply response was attributed to elective procedures. The supply response of physicians to these price increases did not affect the number of patients treated, but instead led to an increase in the intensity of services provided to each one. Again, as in the Chen and Lakdawalla study, the use of both positive and negative price shocks means that findings should generally apply to both increases and decreases in prices.

Interested in the quality implications of this response, Clemens and Gottlieb (2014) looked further, specifically at changes in the treatment of cardiac patients. They found that the additional care provided when prices of treatment increased went to people living where patients already tended to receive more intensive treatment. The extra care patients received did not reduce hospitalizations for myocardial infarction and was not associated with a statistically significant decrease in mortality. Moreover, findings suggested that the additional care received when prices increased was not necessarily efficiently allocated across patient groups. While the authors' quality-focused analysis was limited to one category of care, it is an important reminder that higher prices do not necessarily lead to better outcomes or an efficient distribution of care across populations.

Another study using Medicare and physician survey data from 2000 to 2001 also provided insights into the intensity of service responses to changes in physician fees. Hadley and Reschovsky (2006) found that Medicare fees were positively related to the number of Medicare beneficiaries treated, as well as to service intensity. They found that the increase in intensity of services provided at higher fees seemed attributable to providers changing the mix of services to increase the effective price per RVU, as opposed to increasing the number of services provided. Because Hadley and Reschovsky focused on price variation (not exogenous price shocks in one direction), their findings can be interpreted as applying to both price increases and decreases. Thus, the authors posited that any concerns regarding patient access would result not from an inability to see a physician, but from receiving a lower-intensity mix of services when seen. However, the authors note that their analysis could not provide insight into whether the mix of services would lead to better or worse health outcomes at lower versus higher prices.

In one of the few studies based on private insurance claims, Coey (2015) focused an analysis on physician choices in the management of heart attacks as a function of price. He found that plans that paid physicians more for more invasive treatments had a larger share of their treatments being invasive. This was the case when controlling for a broad set of diagnoses and provider-specific variables. He found that the provider response to higher payments was particularly large for acute myocardial

infarction in less severely ill patients. This was somewhat surprising, given that this condition has standard treatment protocols.

Coey (2015) found that the price response for less severely ill patients was 50 percent larger than for serious cases, an indication that physicians are less inclined to modify treatment approaches as a consequence of price for high-risk and severe conditions. By his estimates, lower payments to physicians through a payment structure other than fee-for-service (here, the author was referring to bundled payments) would change physician behavior in about 20 percent of cases and increase social welfare. This study is a reminder that greater intensity of care is not necessarily a positive for patients, and that depending upon the payment structure employed by a public option or capped payment reform, lower prices could increase well-being, at least for some patients with some conditions.

Several studies have focused on the response of physicians to price changes under the Medicaid program. It is important to keep in mind when extrapolating findings from these Medicaid studies to other possible reforms that current-law Medicaid payment rates are set at the lowest levels of any insurance program in the US, and Medicaid enrollees have among the lowest incomes in the nation. As Zuckerman, Skopec, and Aarons (2021) show, Medicaid fee-for-service physician payment rates in 2019 were, on average, 72 percent of Medicare payment rates for the 27 common procedures studied. The authors found these low relative prices to be consistent with an earlier study that used 2008 data. A temporary primary care fee bump in 2013 and 2014 associated with the Affordable Care Act was followed by a reversion to the prior lower fees.

Given the research evidence from other sources that private insurers pay physicians approximately 20 percent more than Medicare, on average, payment rates under Medicaid are extremely low relative to private payers (Blumberg et al. 2020). Public option and capped rate reforms are generally contemplated as paying physicians at levels between Medicare and commercial rates. Consequently, the findings from the following studies do not have direct implications for the types of reforms being discussed here. Although their findings vary, they do generally imply that there is a limit to how low provider payment rates can go without adversely impacting access to necessary care and patient health.

Saulsberry, Seo, and Fung (2019) reviewed the literature on the relationship between Medicaid physician fees, provider participation, and beneficiary access to care. They identified 18 studies of interest published between 1980 and 2018, with 9 having a national scope and 9 analyzing data from a limited set of states. Seven of these studies analyzed Medicaid fee implications for provider participation, 5 for various measures of beneficiary access to care, and 14 for service use.

Methodologies, beneficiary groups covered, and rigor varied in these studies, and we do not repeat the Saulsberry, Seo, and Fung (2019) findings in detail here. However, only one of the five studies estimating the effects of Medicaid fees on provider participation found a significant positive effect of higher fees, although two of six studies of Medicaid caseload identified significant positive associations. Studies focusing on access to care were more likely to find positive relationships between fees and access, particularly for patients having a usual source of care and the ability to obtain a new appointment. The four stronger-designed studies (of seven total) assessing any use of services found

positive associations with fees. However, six of the eight studies examining service volume found no statistically significant relationship with Medicaid fees. As the authors noted, “Although many studies have investigated changes in outpatient visits associated with fee changes, the evidence is largely mixed, and it is difficult to make generalizable conclusions with respect to the effect of fee changes on utilization” (Saulsberry, Seo, and Fung 2019, 2204).

Discussion

Critics of a public option have warned of dramatic threats to provider solvency and patient access if such a policy were implemented. The American Hospital Association and the Federation of American Hospitals both strongly oppose the Medicare-X Choice Act, which would implement a public option with Medicare rates in nongroup and small employer markets nationwide.¹⁰ The associations claimed millions would leave private coverage and hospitals would face a 10 percent cut in payments, threatening access to care (AHA 2019).¹¹ A 2021 report by FTI Consulting echoes these concerns about access to care and adds that the public option could worsen health disparities by affecting hospitals that serve a disproportionate share of diverse and minority populations.

The evidence described above demonstrates, however, that the likely effects on provider participation and patient access are more nuanced. In addition, other recent Urban Institute work contradicts the notion that a prominent public option approach would threaten minority populations (Blavin, Blumberg, and Simpson 2023). Several design choices in the development of a public option or capped rates could impact enrollment, such as the insurance markets affected and the relative cost of other insurance options, thereby determining the magnitude of the potential impact on provider finances. In addition, the initial price level and subsequent updates of administered rates and the pre-reform payer mix in the market would also impact the degree to which providers would be affected. To the extent that new payment schedules affect pre-reform over- and underutilization of specific services, additional positive effects on patient health may be realized. The strength of enforcement mechanisms and regulations would also be determinative, at least in the short term.

Existing studies of the implications of provider price changes for access and use of care rely largely on experience with the Medicare and Medicaid programs. Plus, the available research on the implications for health outcomes is, unfortunately, limited. The context surrounding these programs and the price changes that analysts have measured for them is different from that surrounding possible reforms, such as public option or capped rate approaches that would generally impact somewhat higher-income nonelderly people, and which would likely rely on payment rates above those existing public programs use. Still, research has produced mixed findings on the implications of various price changes for access and use.

There is some evidence from the Medicare program that *hospital* price cuts tend to decrease use of services by Medicare beneficiaries, although such findings were inconsistent across studies. And the implications of lower Medicare physician prices for use of services by those with other forms of coverage were mixed as well. Most studies found, however, that use by others moved in the same

direction as use by Medicare beneficiaries (e.g., lower prices associated with lower use by Medicare beneficiaries, as well as by those with private insurance or Medicaid). Little evidence showed that changes in Medicare hospital prices have impacted health outcomes for Medicare beneficiaries or the uninsured receiving uncompensated care from the same providers. To the extent that this research applies to public option and capped rate reforms, one would expect that such reforms would lead to less use of hospital care, particularly in areas with high hospital prices most impacted by the policy changes. This lower utilization could include some reductions in use for others not directly affected by the reforms as hospitals identify and implement efficiencies in providing care. However, one would not anticipate that quality of care or health outcomes would suffer as a consequence.

While not completely consistent, most studies of volume responses to changes in Medicare prices for *physicians* found that higher prices were associated with an increased volume of services provided to Medicare beneficiaries. Although, again, the evidence did not support interpreting higher volume as higher quality of care. In fact, different studies found that volume responses were concentrated among higher-income patients or that elective procedures were those most likely to increase. A study of privately insured patients found that those with less severe diseases were getting more invasive care once the price increased, a surprise given the standards of care for the condition studied. However, physician price cuts by Medicaid, the insurer paying the lowest prices to physicians today, do appear to have potentially significant negative ramifications for beneficiary access (e.g., having a usual source of care and getting a new appointment), according to some studies. Even in Medicaid, however, the research did not find strong evidence of physician volume responses to price changes. To the extent that these studies' findings apply to public option and capped rate reforms, one might anticipate physician service volume would increase somewhat under the policy changes, but the volume effect would vary significantly by condition and physician specialty. Any increases would not be expected to fully offset anticipated savings from lower prices. And such increases in physician care provided are not likely to affect patient outcomes, nor are they likely to negatively affect patient access to necessary care.

Singh and Venkataramani (2022) highlight that, as public option or capped rate reforms are considered, it is important to monitor and evaluate services and population groups that could be particularly at risk under a new payment strategy. The hospital- and physician-focused studies above often include analyses of impact by patient insurance status, with a focus on uninsured and publicly insured patients. Monitoring access and utilization by race/ethnicity, socioeconomic status, and insurance coverage will be important. Similarly, it is important to monitor the impact on providers (hospitals, physicians, and other clinicians affected by payment cuts) that serve a disproportionate share of patients who have historically been marginalized. Researchers should assess hospital finances and utilization by for-profit status, Medicare and Medicaid share, financial distress, and the local hospital market. In addition, changes and shifts in the patterns of care, such as differences in urgent, emergent, and elective procedures and the potential for upcoding of diagnoses, as well as in the prices paid by different payers, will inform our understanding of the policy's impact and instruct the need for adjustments to payment levels.

Notes

- ¹ Here, we differentiate between a public option and current state strategies to encourage private insurers in the nongroup Marketplaces to improve affordability by reducing provider payment rates. While these state strategies are sometimes referred to as public option policies, the state government does not administer insurance, contract with an administrator of an insurance option, or bear the insurance risk like a typical insurer.
- ² May providers decline to participate in the public option, or are providers that accept Medicare and Medicaid required to participate? Provider participation requirements could significantly reduce supply concerns and could allow the option to maintain a broad network of participating providers, depending upon how the requirements are structured and enforced. Providers' political resistance to such requirements would be strong, however.
- ³ Are there large or small repercussions for insurers to remain in markets alongside a public option? If more insurers remain in the affected markets, with at least some continuing to pay higher prices to providers, the effect of the public option on provider revenues could be significantly smaller than it otherwise might be.
- ⁴ A comprehensive list of recent Urban Institute analyses of capped provider payment rates is available at "What Are the Effects of Alternative Public Option Proposals?," <https://www.urban.org/research/publication/what-are-effects-alternative-public-option-proposals>.
- ⁵ For example, a capped payment rate policy might apply to hospitals but not to office-based physicians, or to high-priced physician specialties but not to primary care.
- ⁶ As shown in Baker and coauthors (2016), the use of prospective payment in commercial insurance varies by geography and insurer. However, research evidence has shown that a strong majority of commercial insurance claims are already paid using prospective payment, such that a more comprehensive move to diagnostic-related groups in the commercial insurance space would not be an onerous administrative hurdle. Because RVUs are based on current procedural terminology codes, and such codes are used for both public and commercial insurance payments, commercial insurers should not find a move to RVU-based payments onerous either.
- ⁷ Under capped payment rates, insurers would not need large numbers of enrollees to leverage and achieve competitive payment rates with providers, making it easier for insurers to compete with each other (and with a public option if the two approaches were combined).
- ⁸ However, limiting a public option or capped payment rates to certain geographic areas is complex and could be overly disruptive. Circumstances such as insurer or provider competitiveness in a market can change over time, and it is unclear how these policies could be nimbly adapted to changes in competition in local markets. Also, limiting such reforms to certain areas would have significant implications for the savings achieved nationally (Holahan and Simpson 2021a, b, c).
- ⁹ The hospital quality measures Garthwaite, Ody, and Starc (2022) termed quality investments include a composite score of 30-day risk-adjusted mortality and readmission rates for heart attack, heart failure, and pneumonia; whether cardiac patients at discharge are given aspirin and discharge instructions; responses to a patient experience survey; emergency department wait time; adoption of various technologies related to birth, cardiology, diagnostic imaging, radiation therapy, and transplantation; cardiologist education at top 25-ranked medical schools; patient preferences for particular hospitals; and resources used per acute myocardial infarction survival.
- ¹⁰ Partnership for America's Health Care Future, "Study: Medicare-X Would 'Jeopardize Patients' Access to Care...Destabilize Insurance Markets," news update, March 13, 2019, <https://americashealthcarefuture.org/study-medicare-x-would-jeopardize-patients-access-to-care-destabilize-insurance-markets/>; Medicare-X Choice Act of 2001, S. 386, 117 Cong. (2021), <https://www.congress.gov/bill/117th-congress/senate-bill/386>.
- ¹¹ Tina Reed, "Hospitals Could Sustain 10% Cut under Medicare Public Option Proposals: Report," *Fierce Healthcare*, March 12, 2019, <https://www.fiercehealthcare.com/hospitals-health-systems/aha-fah-study>.

References

- AHA (American Hospital Association). 2019. "The Impact of Medicare-X Choice on Coverage, Healthcare Use, and Hospitals." Chicago: AHA.
- Anderson, Gerard F., Peter Hussey, and Varduhi Petrosyan. 2019. "It's Still the Prices, Stupid: Why the US Spends So Much on Health Care, and a Tribute to Uwe Reinhardt." *Health Affairs* 38 (1).
- Baker, Laurence, M. Kate Bundorf, Aileen Devlin, and Daniel Kessler. 2016. "Why Don't Commercial Insurers Use Prospective Payment?" Working Paper 22709. Cambridge, MA: National Bureau of Economic Research.
- Blavin, Fred, Linda J. Blumberg, and Michael Simpson. 2023. "Assessing the Access and Equity Concerns in a Medicare-X-Style Public Option Reform." Washington, DC: Urban Institute.
- Blumberg, Linda J. 2020. "Cutting through the Jargon: Health Care Reform Design Issues and Trade-Offs Facing Us Today." Washington, DC: Urban Institute.
- . 2021. "Design of Public Option and Capped Provider Price Reforms: Important Interactions between Provider Prices and Other Program Features." Washington, DC: Urban Institute.
- Blumberg, Linda J., John Holahan, Stacey McMorrow, Michael Simpson. 2020. *Estimating the Impact of a Public Option or Capping Provider Payment Rates*. Washington DC: Urban Institute.
- Blumberg, Linda J., John Holahan, Erik Wengle, and Caroline Elmendorf. 2019. "Is There Potential for a Public Option to Reduce Premiums of Competing Insurers?" Washington DC: Urban Institute.
- Brunt, Christopher S., Joshua Hendrickson. 2021. "Geographic Variation in Part B Reimbursement and Physician Offsetting Behavior: A Physician Matching Approach." *International Journal of Health Economics and Management* 21 (2): 115–188.
- CBO (Congressional Budget Office). 2007. *Factors Underlying the Growth in Medicare's Spending for Physicians' Services*. Washington DC: CBO.
- . 2022. "Policy Approaches to Reduce What Commercial Insurers Pay for Hospitals' and Physicians' Services." Washington DC: CBO.
- Chen, Alice, and Darius N. Lakdawalla. 2019. "Healing the Poor: The Influence of Patient Socioeconomic Status on Physician Supply Responses." *Journal of Health Economics* 64: 43–54.
- Chernew, Michael E., Leemore S. Dafny, and Maximilian J. Pany. 2020. *A Proposal to Cap Provider Prices and Price Growth in the Commercial Health-Care Market*. Washington, DC: Brookings Institution.
- Clemens, Jeffrey, and Joshua D. Gottlieb. 2014. "Do Physicians' Financial Incentives Affect Medical Treatment and Patient Health?" *American Economic Review* 104 (4): 1320–1349.
- Coe, Dominic. 2015. "Physicians' Financial Incentives and Treatment Choices in Heart Attack Management." *Quantitative Economics* 6 (3): 703–748.
- Cohen, Robin A., and Amy E. Cha. 2022. *Health Insurance Coverage: Early Release of Quarterly Estimates from the National Health Interview Survey, January 2021–March 2022*. Hyattsville, MD: National Center for Health Statistics.
- Dafny, Leemore S. 2005. "How Do Hospitals Respond to Price Changes?" *American Economic Review* 95 (5): 1525–1547.
- Fiedler, Matthew. 2020. *Capping Prices or Creating a Public Option: How Would They Change What We Pay for Health Care?* Washington, DC: Brookings Institution.
- FTI Consulting. 2021. "Ripple Effects: Potential Impacts of a National Public Option on Provider Viability and Disparities in Access to Care." Washington, DC: FTI Consulting.
- GAO (United States Government Accountability Office). 2014. *Medicaid Payment: Comparisons of Selected Services under Fee-for-Service, Managed Care, and Private Insurance*. Washington, DC: GAO.

- Garthwaite, Craig, Christopher Ody, and Amanda Starc. 2022. "Endogenous Quality Investments in the US Hospital Market." *Journal of Health Economics* 84 (102636).
- Hadley, Jack, and James D. Reschovsky. 2006. "Medicare Fees and Physicians' Medicare Service Volume: Beneficiaries Treated and Services per Beneficiary." *International Journal of Health Care Finance and Economics* 6 (2): 131–50.
- He, Daifeng, and Jennifer M. Mellor. 2012. "Hospital Volume Responses to Medicare's Outpatient Prospective Payment System: Evidence from Florida." *Journal of Health Economics* 31 (5): 730–743.
- Holahan, John, and Michael Simpson. 2021a. "Introducing a Public Option or Capped Provider Payment Rates into Concentrated Insurer and Hospital Markets." Washington DC: Urban Institute.
- Holahan, John, and Michael Simpson. 2021b. "Introducing a Public Option or Capped Provider Payment Rates into Private Insurance Markets Updated Estimates." Washington DC: Urban Institute.
- Holahan, John, and Michael Simpson. 2021c. "Public Option and Capped Provider Payment Rate Proposals That Exempt Rural Areas." Washington DC: Urban Institute.
- McGuire, Thomas G., and Mark V Pauly. 1991. "Physician Response to Fee Changes with Multiple Payers." *Journal of Health Economics* 10 (1991): 385–410.
- Nighohossian, Jeremy, and Sabiha Quddus. 2021. *Policy Options to Increase Health Care Coverage and Affordability: Comparing Enhancements to the Affordable Care Act and a Public Option*. Washington, DC: FTI Consulting.
- SAMHSA (Substance Abuse and Mental Health Services Administration). 2013. *Medicaid Handbook: Interface with Behavioral Health Services, module 5, Structure and Reimbursement Methodologies*. Rockville, MD: SAMHSA.
- Saulsberry, Loren, Veri Seo, and Vicki Fung. 2019. "The Impact of Changes in Medicaid Provider Fees on Provider Participation and Enrollees' Care: A Systematic Literature Review." *Journal of General Internal Medicine* 34 (10): 2200–2209.
- Seshamani, Meena, J. Sanford Schwartz, and Kevin G. Volpp. 2006. "The Effect of Cuts in Medicare Reimbursement on Hospital Mortality." *Health Services Research* 41 (3): 683–700.
- Singh, Manasvini, and Atheendar Venkataramani. 2022. "Capacity Strain and Racial Disparities in Hospital Mortality." Working Paper 30380. Cambridge, MA: National Bureau of Economic Research.
- Volpp, Kevin G., R. Tamara Konetzka, Jingsan Zhu, Lori Parsons, and Eric Peterson. 2005. "Effect of Cuts in Medicare Reimbursement on Process and Outcome of Care for Acute Myocardial Infarction Patients." *Circulation* 112 (15): 2268–75.
- White, Chapin. 2014. "Cutting Medicare Hospital Prices Leads to a Spillover Reduction in Hospital Discharges for the Nonelderly." *Health Services Research* 49 (5): 1578–1595.
- White, Chapin, and Vivian Yaling Wu. 2013. "How Do Hospitals Cope with Sustained Slow Growth in Medicare Prices?" *Health Services Research* 49 (1): 11–31.
- White, Chapin, and Tracy Yee. 2013. "When Medicare Cuts Hospital Prices, Seniors Use Less Inpatient Care." *Health Affairs* 32 (10): 1789–1795.
- Zuckerman, Stephen, Laura Skopec, and Joshua Aarons. 2021. "Medicaid Physician Fees Remained Substantially below Fees Paid by Medicare in 2019." *Health Affairs* 40 (2): 343–348.

About the Authors

Stacey McMorro was a principal research associate in the Health Policy Center of the Urban Institute until her death in January 2023. Stacey's research ranged across many different areas, including gaps in coverage and access during the postpartum period, impacts of the Affordable Care Act, health care disparities, closures of labor and delivery units, the drivers of health care spending, health care prices, reproductive health access, and behavioral economics. In addition to her prolific research output, which included scores of research reports and briefs and 25 peer-reviewed articles, she provided caring mentorship to successive cohorts of research assistants, analysts, and other junior colleagues, served on the editorial board of *Health Services Research* and as adjunct faculty at George Mason University, and invested time and energy in the Health Policy Center's Diversity, Equity, and Inclusion council. She joined Urban's Health Policy Center as a research assistant in 2000. She went on to earn a PhD from the Wharton School at the University of Pennsylvania, concentrating in health care management and economics, and rejoined the center in 2009.

Linda J. Blumberg is an Institute Fellow in the Health Policy Center and a research professor at Georgetown University. She is a nationally recognized expert on private health insurance, health care financing, and health system reform. Her work spans a broad array of analysis of the Affordable Care Act, proposals to modify it, efforts to repeal and replace it, and the provision of technical assistance to states in their reform efforts. Included in her research, she has analyzed health reform options ranging from incremental to single payer, public option and capped rate proposals, analyses of the implications of the *King v. Burwell* and *House v. Burwell* Supreme Court cases, and studies of competition in nongroup insurance Marketplaces. Blumberg has testified frequently before Congress and is quoted in major media outlets on health reform topics. She served as a member of the Biden transition team, and from 1993 through 1994, she was a health policy advisor to the Clinton Administration during its health reform effort. She was a 1996 Ian Axford Fellow in Public Policy. Blumberg received her PhD in economics from the University of Michigan, Ann Arbor.

Acknowledgments

This brief was supported by Arnold Ventures. We are grateful to them and to all our funders, who make it possible for Urban to advance its mission.

The views expressed are those of the authors and should not be attributed to the Urban Institute, its trustees, or its funders. Funders do not determine research findings or the insights and recommendations of Urban experts. Further information on the Urban Institute’s funding principles is available at urban.org/fundingprinciples.

The authors are appreciative of comments and suggestions from John Holahan, Stephen Zuckerman, Kevin Lucia, and Christine Monahan. Devlan O’Connor provided editorial assistance, Heather Willoughby and Alex Lew provided administrative assistance. Adele Shartzter and Avani Pugazhendhi contributed to an earlier version of this work.



500 L’Enfant Plaza SW
Washington, DC 20024
www.urban.org

ABOUT THE URBAN INSTITUTE

The Urban Institute is a nonprofit research organization that provides data and evidence to help advance upward mobility and equity. We are a trusted source for changemakers who seek to strengthen decisionmaking, create inclusive economic growth, and improve the well-being of families and communities. For more than 50 years, Urban has delivered facts that inspire solutions—and this remains our charge today.

Copyright © May 2023. Urban Institute. Permission is granted for reproduction of this file, with attribution to the Urban Institute.