Proceedings of the 5th International Conference on Modern Medicine and Global Health
DOI: 10.54254/2753-8818/2027.39207

Fee-for-Service and Its Discontents: A Health Economics Analysis of US Provider Payment Incentives

Zixuan Luo

Vanke Meisha Academy, Shenzhen, China
614088435@qq.com

Abstract. In recent decades, the U.S. has spent more on healthcare compared with other developed countries. This paper discusses how the major Fee-for-Service payment model contributes to this paradox through its impacts on American provider payment incentives. Based on secondary data from OECD Statistics, CMS national health accounts, and some literatures, this study analyzes the health economics of U.S. provider payment incentives. This paper focuses specifically on three channels through which FFS drives up costs: over-treatment, supplier-induced demand, and administrative cost. This paper finds that FFS payment model tends to prioritize the volume of healthcare services rather than their value, which may cause excessive spending through over-treatment, supplier-induced demand, and high administrative costs. Although Medicare has made efforts to shift toward value-based payment models, FFS remains the dominant payment method in private insurance. The drawbacks of FFS suggest that the barriers to payment reform are not solely technical but are also affected by political and institutional factors. Therefore, reforming healthcare payment systems should not be viewed as a one-time process. Rather, it requires continuous efforts to ensure that financial incentives for healthcare providers are aligned with the interests and well-being of patients.

Keywords: Health economics, Fee-for-Service, Provider Payment Incentives, U.S. Healthcare system

1. Introduction

The United States is the highest spending nation for health care in the world. In 2022, the U.S. spent $4.5 trillion, accounting for 17.3% of its GDP [1]. Although this is a huge number, it does not seem to bring better health. By many standard measures, the US ranks below most other developed nations, including life expectancy, infant mortality, and long-term disease management. One study found that Americans pay almost twice as much per person for medical care as people in other high-income countries, but they have a shorter life expectancy [2]. That pattern question is hard to ignore. Consequently, economists have begun to analyze the issue of provider payment methods. The point here is not that payment mechanisms tell us everything, but that behavior is influenced by payment mechanisms in ways that are often ignored.

The prevailing payment method in the United States is fee-for-service (FFS). Providers' reimbursement depends on the type and volume of services they provide to patients. That approach

© 2026 The Authors. This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (https://creativecommons.org/licenses/by/4.0/).

DOI: 10.54254/2753-8818/2027.39207

appears neutral enough, but its economic logic points in a clear direction: more services mean more revenue. As a result, physicians face financial incentives to increase the volume of care by ordering additional tests, recommending extra procedures, and scheduling follow-up visits, even when those services may not yield meaningful clinical benefits. This phenomenon, often referred to as supplier-induced demand, has been well documented in health economics [3].

In this background, this study examines the U.S. FFS system within the principal-agent framework. The analysis is guided by two questions. The first concerns the effects of FFS on doctors' behaviors and overall healthcare costs. The second concerns the persistence of the model and the structural reasons why decades of reform efforts have not brought about substantial change. Based on secondary data from OECD, CMS, and existing peer-reviewed literature, the analysis aims to move beyond descriptive analysis. The goal is to identify the structural barriers, including fragmented insurance markets and institutional resistance, that continue to hinder the transition toward value-based payment.

2. Principal-agent problem and provider payment theory

2.1. Definition of the principal-agent problem

The principal-agent problem arises when a principal delegates a task to an agent whose interests may diverge from the principal's. Healthcare is a common example because patients often lack the medical knowledge needed to judge which treatments or services they need. This creates information asymmetry between patients and doctors. At the same time, physicians may respond not only to patients' needs but also to factors such as costs, billing rules, and income. McGuire describes physician agency as a situation in which clinical decisions are influenced by both patient welfare and incentives related to providing care [3].

The same issue applies to insurers and public payers. They aim to control costs while maintaining appropriate care, but they cannot observe every clinical decision. Payment systems therefore provide incentives for observable services while using rules and monitoring to limit undesirable behavior.

2.2. Comparing payment incentives

FFS pays separately for consultations, tests, procedures, and other defined services. Its advantage is that it imposes no penalty on providers for treating patients who require more intensive care. That means doctors may not reject seriously ill patients. However, the marginal revenue generated by each additional billable service may encourage providers to deliver higher volumes or greater intensity of care when clinical discretion is broad. Under prospective payment, providers receive a fixed amount for a defined episode of care, which reduces the incentive to provide additional services. However, this model may also create incentives for early discharge or the avoidance of patients with higher treatment costs. Capitation provides a fixed payment per enrolled patient over a specified period, which can encourage prevention and better coordination of care. At the same time, it may create a risk of undertreatment if quality and access are not adequately monitored. These payment models allocate financial risk differently. FFS places most of the financial risk on payers, while capitation transfers a greater share of the risk to providers, with prospective payment falling between the two. No model is neutral, so each needs safeguards against its predictable weaknesses.

DOI: 10.54254/2753-8818/2027.39207

3. The United States: fee-for-service and provider incentives

3.1. FFS's dominant position and how it works

In the United States, FFS remains embedded in Medicare, commercial insurance, and the internal compensation systems of many provider organizations. This means that FFS operates at multiple levels of the healthcare system rather than only through direct payments from insurers to providers. Even when payers introduce value-based contracts, healthcare organizations may still receive substantial FFS revenue and compensate clinicians partly based on productivity. Recent evidence also suggests that changes in payment arrangements can affect provider performance. Markowski et al. found that the implementation of Medicaid alternative payment models was associated with improvements in the quality of care provided by federally qualified health centers, suggesting that payment structures can influence provider incentives and organizational performance [4]. As a result, the transition toward value-based payment does not necessarily remove the existing FFS structure. Instead, traditional and alternative payment arrangements can operate alongside each other within the same healthcare system. This helps explain why FFS remains an important part of provider payment in the United States despite continued efforts to reform the payment system.

3.2. The incentive structure: volume over value

The volume-based incentives associated with FFS are also reflected in the compensation systems used by healthcare organizations in the United States. Reid et al. found that volume-based compensation was a common component of physician compensation, while incentives related to quality and cost accounted for a smaller share [5]. This suggests that the quantity of services provided can remain an important factor in determining physician compensation, even as healthcare organizations introduce other performance-based incentives. Evidence from Medicare also shows a relationship between fee-for-service payment and the volume of services provided. Using 100% of Medicare Part B claims, Christensen et al. found that relative value units (RVUs) per beneficiary increased substantially between 2005 and 2021, indicating a significant increase in the volume of services delivered under the Medicare Physician Fee Schedule [6]. MedPAC has noted that stand-alone FFS does not actively encourage providers to keep patients healthy and out of hospitals [7]. These findings indicate that financial incentives linked to service volume remain an important feature of the U.S. healthcare payment system. Such incentives may influence physician behavior and can contribute to supplier-induced demand, which will be discussed further in Section 4.

4. Consequences of FFS: evidence on costs and outcomes

4.1. Over-treatment and supplier-induced demand

When providers receive additional reimbursement for additional services, financial incentives may affect decisions about the amount and strength of care provided. This does not mean that every additional test or procedure is unnecessary, because some patients may genuinely require more intensive treatment. However, when physicians have more information than patients about the necessity of medical services, patients may find it difficult to determine whether additional care is medically necessary or influenced by financial incentives. This information asymmetry can create conditions for supplier-induced demand. In this situation, physicians may influence patients to use more healthcare services than they would choose if they had the same information as the physician

DOI: 10.54254/2753-8818/2027.39207

[3]. Therefore, the concern with FFS is not simply that it increases the number of services provided, but that its payment structure may make higher service volume financially attractive. Evidence discussed in Section 2.2 shows that payment and service volume are related, providing a basis for examining whether these incentives can contribute to unnecessary or excessive care.

4.2. Administrative costs and price inflation

Another consequence of the U.S. healthcare payment system is the high administrative cost associated with healthcare financing and payment. The U.S. system involves multiple insurers, payment arrangements, billing processes, and reporting requirements, which can make the administration of healthcare more complex. Providers and insurers must spend resources on activities. These administrative activities are also identified as a source of waste in the U.S. healthcare system [8]. These costs do not directly improve patients' health, but they increase the resources required to operate the healthcare system. In addition, the complexity of payment arrangements can contribute to differences in healthcare prices across providers and payers. Therefore, high healthcare spending in the United States cannot be explained only by the amount of medical care provided. The administrative structure and the prices paid for healthcare services are also important factors. This suggests that payment reform needs to consider not only provider incentives but also the administrative burden and pricing structure of the healthcare system.

4.3. Health outcomes despite high spending

The high healthcare cost in the US has not necessarily caused in better health outcomes. Comparing with other high-income countries, the US spends far more on healthcare. However, its life expectancy remains lower. One reason may be the way healthcare resources are used. As discussed above, payment incentives can encourage greater use of medical services, while administrative costs also take up resources within the healthcare system. This does not mean that higher spending itself is always ineffective, since some additional healthcare services can provide real benefits to patients. However, the U.S. case suggests that the amount of money spent on healthcare is only part of the issue. How that spending is used, and what types of care providers are encouraged to deliver, can also affect health outcomes.

5. Payment reform and the persistence of FFS

5.1. Medicare's move toward value-based payment

In response to the limitations of traditional FFS, Medicare has increasingly introduced alternative payment models that place greater emphasis on quality, outcomes, and the overall cost of care. These models attempt to shift provider incentives away from simply increasing the volume of services and toward improving the value of healthcare. Evidence from the commercial insurance sector also shows that the effects of value-based payment models are mixed. Milad et al. found more consistent evidence of improvements in quality than in reductions in spending or utilization across the studies they reviewed [9]. Similarly, Song et al. found that the Alternative Quality Contract, which used a global budget combined with quality incentives, reduced medical spending while improving measures of quality [10]. These findings suggest that changing provider payment incentives can influence both healthcare spending and quality. However, alternative payment models do not completely eliminate FFS. Instead, they often operate alongside traditional payment

DOI: 10.54254/2753-8818/2027.39207

arrangements, making the transition gradual rather than a complete replacement of FFS. Medicare's experience therefore shows that payment reform is possible, but changing an established payment system requires continued implementation and effective incentive design.

5.2. Why FFS persists in private insurance

Despite the problems with FFS, replacing it with value-based payment is difficult because it changes how financial risk is shared. Under FFS, providers receive more payment by delivering additional services, while payers may face risk from higher utilization. Value-based models can shift some of this risk to providers by connecting payment to spending, quality, or patient outcomes. This may cause providers to be reluctant to participate when they cannot fully control the cost or outcome.

Another barrier is the fragmented US healthcare system. Providers may get payments from Medicare, Medicaid, and private insurance from different systems. As a result, they may face value-based incentives from one payer while still receiving FFS payments from another. Alternative payment models also require new data systems and administrative resources. These factors help explain why U.S. payment reform has generally developed through gradual and mixed arrangements rather than completely replacing FFS.

6. Policy implications and future directions

6.1. What the US case teaches about provider incentives

The U.S. experience shows that no provider payment system is incentive neutral. Each model encourages certain behaviors while creating different risks. Under FFS, providers receive more revenue from additional services, which may encourage higher service volume. Prospective payment and capitation reduce this incentive by using fixed or predetermined payments, but they may instead encourage providers to reduce the amount or cost of care.

The goal of reform is therefore not simply to replace a "bad" model with a "good" one. Payment systems need to balance incentives with the risk of undertreatment. Risk adjustment and monitoring may help reduce these risks. The main lesson is that provider behavior responds to payment incentives. Effective reform should reward better quality and efficiency without encouraging unnecessary services or reductions in necessary care.

6.2. Limitations and future research

This study has several limitations. First, it mainly relies on existing literature and secondary data, so it cannot establish that FFS alone causes high U.S. healthcare spending. Second, healthcare spending is also affected by factors such as medical prices, drug costs, administrative complexity, market concentration, and insurance design. High administrative costs cannot be attributed entirely to FFS because they are also related to the fragmented multi-payer system. Finally, evidence on alternative payment models varies across programs and settings. Future research could use claims or organizational data to examine how payment changes affect utilization, quality, patient selection, and health outcomes.

7. Conclusion

This paper examined how fee-for-service payment affects provider behavior and healthcare spending in the United States, as well as why FFS has remained widely used despite payment reforms. The

DOI: 10.54254/2753-8818/2027.39207

analysis suggests that FFS links provider revenue directly to the number of billable services. With information asymmetry between doctors and patients, this can contribute to higher service use, supplier-induced demand, and unnecessary care. However, FFS is not the only reason for high U.S. healthcare spending. Prices, administrative costs, and the structure of healthcare financing also play important roles.

Value-based payment indicates that changing financial incentives can influence provider behavior. Yet these models also bring new risk. Shifting more financial responsibility to providers may encourage efficiency and better coordination, but it can also raise concerns about undertreatment or patient selection. The continued use of FFS is therefore partly related to the difficulty of reallocating financial risk and coordinating different payment systems.

Overall, there is no single payment model that can solve all of these problems. Each model creates different incentives and risks. Future payment reform should focus on reducing unnecessary care while maintaining quality, access, and appropriate treatment. This suggests that gradual adjustment may be more realistic than completely replacing FFS with another payment model.

References

[1] Hartman, M., Martin, A. B., Whittle, L., Catlin, A., & the National Health Expenditure Accounts Team. (2023). National health care spending in 2022: Growth similar to prepandemic rates. *Health Affairs, 43*(1), 6–17. doi:10.1377/hlthaff.2023.01360.

[2] Papanicolas, I., Woskie, L. R., & Jha, A. K. (2018). Health care spending in the United States and other high-income countries. *JAMA, 319*(10), 1024–1039. doi:10.1001/jama.2018.1150.

[3] McGuire, T. G. (2000). Physician agency. In Culyer, A. J., & Newhouse, J. P. (Eds.), *Handbook of Health Economics, Vol. 1* (pp. 461–536). Elsevier. Amsterdam: Elsevier. doi:10.1016/S1574-0064(00)80168-7.

[4] Markowski, J., Wallace, J., Schlesinger, M., & Ndumele, C. D. (2024). Alternative payment models and performance in federally qualified health centers. *JAMA Internal Medicine, 184*(9), 1065–1073. doi:10.1001/jamainternmed.2024.2754.

[5] Reid, R. O., Tom, A. K., Ross, R. M., Duffy, E. L., & Damberg, C. L. (2022). Physician compensation arrangements and financial performance incentives in US health systems. *JAMA Health Forum, 3*(1), e214634. doi:10.1001/jamahealthforum.2021.4634.

[6] Christensen, E. W., Nicola, G. N., Rula, E. Y., Nicola, L. P., & Hirsch, J. A. (2024). Medicare volume growth and shift in payments from physicians to non-physician practitioners under statutory budget neutrality. *INQUIRY: The Journal of Health Care Organization, Provision, and Financing, 61*, 1–9. doi:10.1177/00469580241249076.

[7] Medicare Payment Advisory Commission. (2022). *Report to the Congress: Medicare and the health care delivery system*. MedPAC. Washington, DC. https://www.medpac.gov/document/june-2022-report-to-the-congress-medicare-and-the-health-care-delivery-system/

[8] Berwick, D. M., & Hackbarth, A. D. (2012). Eliminating waste in US health care. *JAMA, 307*(14), 1513–1516. doi:10.1001/jama.2012.362.

[9] Milad, M. A., Murray, R. C., Navathe, A. S., & Ryan, A. M. (2022). Value-based payment models in the commercial insurance sector: A systematic review. *Health Affairs, 41*(4), 540–548. doi:10.1377/hlthaff.2021.01020.

[10] Song, Z., Safran, D. G., Landon, B. E., Landrum, M. B., He, Y., Mechanic, R. E., Day, M. P., & Chernew, M. E. (2012). The alternative quality contract, based on a global budget, lowered medical spending and improved quality. *Health Affairs, 31*(8), 1885–1894. doi:10.1377/hlthaff.2012.0327.