

which must be maintained and updated as needed by providers.

CMS is committed to producing and releasing high-quality data that permit as many users as possible to better understand the Medicare program. The physician data release is part of a broader strategy of data transparency, and we plan to continue to release additional data in the future. We believe that transparency will drive health system improvement.

The views expressed in this article are those of the authors and do not necessarily reflect the views or policies of the Centers for Medicare and Medicaid Services.

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Caution Advised: Medicare's Physician-Payment Data Release

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On April 9, 2014, Health and Human Services Secretary Kathleen Sebelius announced the release of privacy-protected data concerning services provided to beneficiaries enrolled in the fee-for-service Medicare program in 2012; the services were provided by individual physicians and other health care professionals.^{1,2} The release occurred 10 months after federal district court judge Marcia Morales Howard of the Middle District of Florida vacated a 33-year ban on the publication of such information in a legal victory for Real Time Medical Data and Dow Jones.³ In her opinion, Morales Howard stated that the legal principles on which the previous injunction was based could no longer be sustained, citing case law that had narrowed the scope of the Privacy Act over the intervening three decades.³ Medical professional organizations had opposed lifting the ban, in part

because of concerns that the loss of members' individual privacy rights could be harmful, especially if the data released were inaccurate and wrongfully created an aura of suspicious or inflated payments when none existed.

Much has transpired over the past several years with respect to public reporting of physician performance, hospital outcomes, and health systems' population management. To impede the release of Medicare data concerning physician and facility payments in the current environment would create a treacherous dynamic for providers and place them in a defensive posture that would be widely seen as a futile effort to maintain the status quo at the expense of enacting meaningful health care cost reforms. The implications of the data release are more nuanced than a simple accounting of payments, and caution should be exercised

in interpreting and using these data, lest patients and the public misunderstand their applicability.

The newly released data set contains information on more than 880,000 individual health care providers in all 50 states and on 6000 procedures and services for which Medicare Part B paid \$77 billion in 2012. Individual providers can be identified by name, unique provider identification number, geographic location, practitioner type, and Medicare participation status. The available information includes the number of Healthcare Common Procedure Coding System (HCPCS) codes submitted, the number of unique Medicare beneficiaries seen, the Medicare charges submitted, and the total dollar amounts allowed and paid to the provider.

The data are indeed unprecedented in scope, yet their limitations must be recognized if we

are to place their meaning in the appropriate context. It is anticipated that fraud will be identified and prosecuted and that insights will be gained into any unfounded aspects of geographic variability in charge submission and payment — though these possibilities were not highlighted in Secretary Sebelius's press release about the data. Above all else, the data release should spark conversations between health care providers and patients about their shared responsibility for using resources in ways that maximize value.

The Centers for Medicare and Medicaid Services listed a number of limitations of the data in a methodologic overview of the Physician and Other Supplier Public Use File that was published on April 7, 2014.⁴ For example, the data are summarized from claims received, the accuracy of which was not verified. Errors occur all too frequently in the arcane world of submission and adjudication of Medicare (and other payer) claims, in which allowed amounts and payments can vary as a function of modifiers, geography, cost of living, place of service, and the provision of multiple services to the same beneficiary on the same day. Data in this release also cannot be easily linked with those in other public data sets.

It is also important to recognize that the data, which pertain to Medicare Part B beneficiaries only, are not reflective of a provider's entire practice. The vast majority of health care providers furnish services to a wider spectrum of patients, including those with private insurance, those covered under Medicaid or other federal programs, and those who are uninsured. In addition, phy-

sicians in academic medical centers supervise residents and fellows who submit claims under their supervisor's provider number. Because of overhead expenses, the cost of services delivered in a nonhospital office setting exceeds the amount for provider reimbursement alone. For example, media reports have highlighted the very high payments to several ophthalmologists that were also intended to cover the cost associated with the use of a nongeneric medication for treating macular degeneration, a common condition among Medicare beneficiaries.⁵

Equally important, the data are not risk-adjusted and thus provide no insight into the severity or complexity of disease among patients whose care is managed by the provider. In the practice of cardiovascular medicine, for example, decision making regarding left ventricular assist device therapy for patients with advanced systolic heart failure is understandably more complicated than longitudinal management of stable ischemic heart disease.

Nor do the data include an assessment of the quality of the care provided by individual clinicians. Indeed, they are rooted in a volume-centric approach to health care delivery that has been rapidly losing relevance in today's changing health care environment. Although there is a legitimate role for policymaking on the basis of volume–outcome analyses for complex procedures (e.g., abdominal aortic aneurysm repair, carotid endarterectomy, or mitral-valve surgery), increasing emphasis is now placed on value, expressed conceptually as the ratio of quality to cost. Estimates of quality are imperfect

but may be gleaned from a variety of sources, including benchmarking against peers in local and national registries, adherence to performance measures, application of appropriate use criteria in clinical decision making, adoption of “meaningful use” of electronic health records, patient-satisfaction scores, and elements of the Physician Quality Reporting System. Efforts to make cost considerations transparent are both welcome and laudable; this data release is a small but somewhat flawed step in that direction.

Given all their limitations, are the released data likely to be useful to patients? As a result of gaining access to these data, will my own patients, for instance, achieve a better understanding of how care is delivered through the Medicare program or be able to compare my 2012 performance, quality of care, and costs with a peer group of general cardiologists at academic medical centers?

They will be able to see the total Medicare payments I received (\$64,986.06) and determine with little difficulty that, in terms of Medicare income, I ranked 468th out of 738 cardiologists in Massachusetts and 109th of 291 cardiologists in Boston while seeing approximately 600 more unique beneficiaries and billing for about half as many different procedure codes as the average Massachusetts cardiologist. They will not learn anything about the many other aspects of my practice, the complexity of my patients' health care needs, or the vagaries of Medicare claims processes, all of which contribute to the total picture. Some patients will worry that I underachieved; no patients are likely to question how this pay-

ment total affected my 2013 salary negotiations. I will not be able to provide insights as to why the Medicare payment I received might differ (either positively or negatively) from that allocated to another general cardiologist who provided comparable services in equal numbers at another academic medical center — nor would I choose to refer my patients for a second or third opinion on the basis of such information.

Processes for the use of these data for research and policymaking would clearly be strengthened by efforts to ensure their validity and to account for patients' disease complexity and risk level. Insights gleaned from linking these data to quality mea-

asures and health outcomes would inform conversations regarding the value proposition to which we all aspire. One critical next step will be the proactive engagement of informed patients in discussions about their care, including its cost when appropriate.

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Clinicians' Involvement in Capital Punishment — Constitutional Implications

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If capital punishment is constitutional, as it has long been held to be, then it “necessarily follows that there must be a means of carrying it out.”¹ So the Supreme Court concluded in *Baze v. Rees*, a 2008 challenge to Kentucky's lethal-injection protocol, in which the Court held that the means used by Kentucky did not violate the Eighth Amendment's prohibition against cruel and unusual punishment. Lethal-injection procedures have changed significantly since 2008, and that fact coupled with Oklahoma's recent botched lethal injection of Clayton Lockett, the latest in a long series of gruesome and error-ridden executions, has raised questions about whether current methods would pass constitutional muster if reviewed by the Su-

preme Court. Unfortunately, they probably would.

This likelihood may surprise members of the medical and scientific communities who oppose involvement by their professions in implementing the death penalty. Lethal injection, the primary execution method used in all death-penalty states, was adopted precisely because its sanitized, quasi-clinical procedures were intended to ensure humane deaths consistent with the Eighth Amendment. But experiences like Clayton Lockett's, which result from prisons' experimentation with untested drugs and reliance on personnel with unverifiable expertise, demonstrate the dearth of safeguards for ensuring that this goal is actually achieved. Some drug companies now refuse to distrib-

ute drugs used for executions, pharmacies are reluctant to participate unless their identities are shielded, and organized medicine has taken a stand against physicians' involvement in capital punishment. Nevertheless, states have demonstrated their willingness to continue with lethal injections, and most federal courts have allowed executions to proceed in the face of constitutional challenges. The time is therefore ripe for the medical and scientific communities to consider, once again, their role in this process.

The precedent set by the Court in *Baze v. Rees* establishes that, in order for an Eighth Amendment challenge to succeed, a petitioner must demonstrate that an execution procedure imposes a “substantial” or “objectively intoler-