The Heritage Foundation

BACKGROUNDER

No. 3013 | MAY 18, 2015

The New Disease Classification (ICD-10): Doctors and Patients Will Pay

John Grimsley and John O'Shea, MD

Abstract

The mandatory adoption of the latest International Classification of Diseases (ICD-10) will add to the already considerable financial and administrative burdens on physician practices. Instead of imposing this unfunded mandate, Congress should delink the disease classification system from reimbursement policy, and make the adoption of the new ICD-10 code system voluntary until a less burdensome billing process is in place.

On October 1, 2015, a new standardized system of classifying disease will be imposed on practicing physicians and others in the health care sector. The World Health Organization's (WHO) International Classification of Diseases (ICD) is a system of diagnostic codes established for defining and reporting disease, identifying global health trends and collecting global statistics, and providing a common language for health information distribution.[1]

Since the 1980s, the United States has linked this system of diagnostic codes to reimbursement for health care services. The current ICD-9 is scheduled to be replaced by a newer—vastly more complex—system, the ICD-10.

While an updated diagnostic system for disease classification might be in order, there are significant costs and trade-offs. To protect practicing physicians and other health care workers from such an unfunded mandate, Congress should delink the disparate goals of research and reimbursement, and develop a more appropriate coding system that makes the billing process less, not more, burdensome. In the interim, Congress should allow providers to have the choice of continuing to use the current ICD-9 system or adopt the new ICD-10

This paper, in its entirety, can be found at **http://report.heritage.org/bg3013**

The Heritage Foundation
214 Massachusetts Avenue, NE
Washington, DC 20002
(202) 546-4400 | heritage.org

Nothing written here is to be construed as necessarily reflecting the views of The Heritage Foundation or as an attempt to aid or hinder the passage of any bill before Congress.

Key Points

- The International Classification of Diseases (ICD) is a system of diagnostic codes for reporting disease, identifying global health trends, and collecting global statistics.
- Since the 1980s, the U.S. has conflated the disparate goals of research and reimbursement by linking the ICD codes to payments for health care. This unwise policy will be compounded by replacing the current ICD-9 with the newer—vastly more complex—ICD-10, to be imposed on doctors on October 1, 2015.
- A more detailed disease classification system has the potential to facilitate research and improve disease prevention and management, but continuing to conflate research and billing carries significant costs.
- Congress should delink the ICD system from reimbursement policy and establish a smooth and equitable transition to a system that is more appropriate to the medical billing process and less burdensome to doctors and patients.

system until the alternative reimbursement arrangement is complete.

The Evolution of the ICD

Efforts to establish a standardized international system of classifying disease have been ongoing for over 500 years. In the 1770s François Bossier de Lacroix, better known as Sauvages, is credited with the first attempt to classify diseases systematically in his treatise titled *Nosologia methodica*.[2] The origins of the ICD system can be traced back to the first International Statistical Congress, in 1853, where the goal was to establish an internationally uniform classification of mortality causes. Since then it has undergone 10 revisions, with the 11th currently under way.

In the U.S., the Department of Health and Human Services (HHS) has used the ICD system as the foundation for reimbursement since 1983, and its use in medical billing has quickly expanded. HHS established the ICD-9 Clinical Modification (ICD-9-CM)[3] to assign codes to diagnoses and hospital inpatient procedures by linking ICD data to its hospital inpatient Prospective Payment System (PPS) and Diagnosis Related Groups (DRGs). The ICD-9-CM is mandatory when filing reimbursement claims with the Centers for Medicare and Medicaid Services (CMS) and private insurance companies. Presently, if a health care provider does not use the ICD-9-CM when reporting diagnoses or inpatient procedures to CMS or insurance companies, he will not receive reimbursement for his services.

After converting from ICD-9 to ICD-10, an ICD-10 Clinical Modification (ICD-10-CM) will be established for diagnostic coding, while an ICD-10 Procedural Coding System (ICD-10-PCS) will be used for coding medical inpatient procedures. There is a considerable difference between the ICD-9 and ICD-10 with respect to total volume and code length. The ICD-9-CM consists of over 14,000 diagnostic codes that are three to five characters in length, and there are an additional 4,000 ICD-9-CM procedural codes that are three to four characters in length.[4] The ICD-10-CM codes are three to seven characters in length and total 68,000 different codes; the ICD-10-PCS codes are seven characters in length and total roughly 87,000 codes. This is an eightfold increase in the total number of codes *in addition to* an increase in the length of characters per code.

According to federal regulations, all entities covered by the Health Insurance Portability and Accountability Act of 1996 (HIPAA), which includes all health plans, health data clearinghouses, and health care providers who transmit health information electronically, must use the 10th revision of the ICD (ICD-10) after the compliance date in order to be reimbursed for their services.[5]

In order to grasp the impact that the ICD-10 would have, it is vital to have a rudimentary understanding of the reimbursement process. When a physician treats a patient, she records the diagnosis and any procedure in the patient's medical record. Subsequently, medical coders translate the doctor's notes into medical codes (ICD-9). These medical codes are then filed as part of a claim by the provider to the patient's public or private health insurer so the provider can be reimbursed. Upon receiving a reimbursement claim, the health insurer can either approve and pay the claim, or deny the claim, which typically includes a reason for denial. Incorrect diagnostic codes are a common reason for denying a claim. Health care providers can appeal a claim denial, but the appeal adds to the already substantial administrative and financial burden on a medical practice.

1. World Health Organization, "International Classification of Diseases (ICD) Information Sheet," http://www.who.int/classifications/icd/factsheet/en/ (accessed November 14, 2014).
2. G. H. Knibbs, "The International Classification of Disease and Causes of Death and Its Revision," *Medical Journal of Australia*, Vol. 1 (1929), pp. 2–12.
3. Centers for Disease Control and Prevention, "International Classification of Diseases–9–CM," 1979, http://wonder.cdc.gov/wonder/sci_data/codes/icd9/type_txt/icd9cm.asp (accessed April 2, 2015).
4. American Medical Association, "ICD-10 Code Set to Replace ICD-9," http://www.ama-assn.org/ama/pub/physician-resources/solutions-managing-your-practice/coding-billing-insurance/hipaahealth-insurance-portability-accountability-act/transaction-code-set-standards/icd10-code-set.page (accessed April 3, 2015).
5. "Department of Health and Human Services," *Federal Register*, Vol. 74, No. 11 (January 16, 2009), p. 3328, http://www.gpo.gov/fdsys/pkg/FR-2009-01-16/pdf/E9-743.pdf (accessed January 15, 2015).

Weak Arguments for ICD-10

Supporters of ICD-10 cite a number of reasons why providers should transition to ICD-10. Following are the main reasons—and explanations of why they are weak:

Claim: Clinical Data Is Outdated. According to the CMS, the ICD-10 transition is necessary because ICD-9 is more than 35 years old, has limited ability to store clinical data, contains outdated and obsolete terms, and is inconsistent with current medical practices.[6] For example, if a patient is treated for two successive wrist fractures, the ICD-9 code does not provide enough detail to determine if the second fracture is a repeat fracture of the same wrist, a fracture of the other wrist, or non-union or mal-union of the original fracture.

However, the additional coding detail of ICD-10 will not help the physician treating that patient, since doctors do not treat according to the diagnostic code, but according to the patient's clinical situation. More detailed coding merely makes it easier to systematically retrieve data on a large number of patients. There is also no good evidence that a substantially more complex coding system makes the billing process any easier. In fact, just the opposite may be true.

Claim: U.S Lags Behind Other Countries. Another argument advanced in favor of ICD-10 is that, since many other countries have already adopted ICD-10, the U.S. lags woefully behind.[7]

Certainly, having a greater level of granular detail in a disease classification system would be useful for international comparisons. But since other countries have adopted their own ICD-10 modifications, adoption of ICD-10 in the U.S. will not necessarily facilitate such comparisons. Moreover, most WHO member states use the ICD-10 system only to record mortality (138 states) or morbidity (99 states) statistics.[8] ICD-10 has been used in the United States since 1999 when it was adopted by the WHO to code and classify mortality data from death certificates, but, so far, has not been used in the medical billing process.

Furthermore, currently only 10 countries employ the ICD-10 in the reimbursement process, 6 of which have a single-payer health care system (Canada, Finland, Iceland, Norway, Sweden, and the U.K.).

Claim: ICD-10 Will Improve Patient Care. Evidence supporting the claim that the ICD-10 will have a net benefit on patient care is thin. In recent congressional testimony, Carmella Bocchino, the executive vice president of America's Health Insurance Plans (AHIP), whose member plans are responsible for the health care coverage of over 200 million Americans, argues that transitioning to ICD-10 will "enhance the ability to measure and improve health care services; support disease management programs; enhance the ability to conduct public health surveillance; compare data with other countries; and support a 21st-century health system."[9] These are all laudable goals, but they have nothing to do with the billing and reimbursement process.

If the goal is to collect data that will make it easier for researchers and health care analysts to retrieve that data, there are better ways to do that. For example, SNOMED-CT, a coding system specifically designed to capture patient data for clinical purposes and facilitate sharing of such data, may be more ideal for coding and classifying disease than ICD-10.[10] In addition, many medical specialty societies are developing patient registries that, if properly constructed, will yield more relevant clinical information. Attempting to achieve the goals of two such disparate worlds as research and reimbursement is a mistake.

6. Centers for Medicare & Medicaid Services, "FAQs: ICD-10 Transition Basics," July 2012, http://www.cms.gov/Medicare/Coding/ICD10/Downloads/ICD10FAQs.pdf (accessed April 3, 2015).
7. Bernie Monegain, "ICD-10: 'We Need It; We're Ready,'" Healthcare IT News, February 11, 2015, http://www.healthcareitnews.com/news/icd-10-we-need-it-were-ready (accessed April 3, 2015).
8. Centers for Medicare & Medicaid Services, "ICD-10 Overview," http://cms.gov/Medicare/Coding/ICD10/downloads/ICD10_Coops_Sept_16.pdf (accessed November 14, 2014).
9. Carmella Bocchino, "Examining ICD-10 Implementation," testimony before the Subcommittee on Health, Committee on Energy and Commerce, U.S. House of Representatives, February 11, 2015, http://docs.house.gov/meetings/IF/IF14/20150211/102940/HHRG-114-IF14-Wstate-BocchinoC-20150211.pdf (accessed April 3, 2015).
10. Kin Wah Fung, "How the SNOMED CT to ICD-10 Map Facilitated the Map to a National Extension of ICD-10," National Library of Medicine, undated Power Point presentation, http://ihtsdo.org/fileadmin/user_upload/doc/slides/Ihtsdo_Showcase2012_MappingNationalExtensionICD10.pdf (accessed April 3, 2015).

A 2006 technical report by the RAND Corporation, a source often quoted by ICD-10 advocates, maintains that the positives resulting from converting to the ICD-10 outweigh the negatives.[11] However, the report does not use data or case studies when examining the cost-benefit ratio. Instead the report's analysis is built on various statistical formulas based on a substantial number of assumptions and extrapolations. Another report published by HHS, which relies heavily on the 2006 RAND analysis, acknowledges that any benefits that might occur would not be realized until at least 10 years after ICD-10 implementation.[12]

Conversely, a report by the Robert E. Nolan Company, a health care consulting firm, states that "based [on Nolan's] research, benefits asserted by [ICD-10] proponents are uncertain and unproven."[13] Nolan goes on to mention that with ICD-10 the "[p]otential for unintended consequences is high."[14] So, while proponents of ICD-10 implementation generally assume that the net impact will be positive, most objective reports and more detailed analyses seem to indicate that the numerous real and immediate disadvantages will likely outweigh any possible long-term benefits.

Implementation Costs

The transition to ICD-10 will be costly—and health care providers, especially those in smaller, independent practices, will face financial and administrative burdens that will result in substantial productivity losses and reimbursement disruptions that will have a lasting adverse impact on the quality and cost of health care.

In order to prepare for ICD-10 health care providers will have to upgrade IT systems, spend considerable time and expense training and hiring office personnel, and perform systems testing. A 2006 report by the Hay Group, a global management consulting firm, assessed the cost of ICD-10 implementation for all providers nationwide to be between $2.52 billion and $6.67 billion.[15] A report by the Nolan Company estimated the implementation cost for all providers to range from $4.1 billion to $10.5 billion.[16] A September 2010 AHIP report estimated that the "total system-wide cost" just for health insurance companies would likely be between $2 billion and $3 billion, and that average per-member implementation costs would range from $38 for small health plans (fewer than one million members) to $11 for large plans (more than five million members).[17]

Estimates of the cost of ICD-10 implementation for practices vary widely. In 2014, Nachimson Advisors published a report that estimated implementation costs for private practices to range from $25,000 to $3 million per practice, depending on practice size.[18] A recent survey of ICD-10 implementation cost in small physician offices demonstrates that the implementation costs, although still substantial, are not as significant as originally anticipated, ranging from $5,000 to $10,000 for a small practice.[19] Of greater concern, perhaps, are the recurrent costs that health care providers will face. These recurring costs, which include productivity loss and reimbursement disruptions, will pose a substantial barrier to running an efficient, viable practice in the long run.

Impact on Health Care Providers. After ICD-10 implementation health care providers will have to deal

11. Martin Libicki and Irene Brahmakulam, "The Costs and Benefits of Moving to the ICD-10 Code Sets," RAND Corporation, March 2004.
12. "Department of Health and Human Services—HIPAA Administrative Simplification: Modification to Medical Data Code Set Standards to Adopt ICD-10-CM and ICD-10-PCS; Proposed Rule," *Federal Register*, Vol. 73, No. 164 (August 22, 2008), p. 49796, http://www.gpo.gov/fdsys/pkg/FR-2008-08-22/pdf/E8-19298.pdf (accessed April 3, 2015).
13. Robert E. Nolan Company, "Replacing the ICD-9-CM with ICD-10-CM and ICD-10-PCS: Challenges, Estimated Costs and Potential Benefits," October 30, 2003, p. 3.
14. Ibid., p. 33.
15. Thomas Wildsmith, "Examining the Cost of Implementing ICD-10," Hay Group, 2006.
16. Nolan Company, "Replacing ICD-9-CM with ICD-10-CM and ICD-10-PCS."
17. America's Health Insurance Plans, "Health Plans' Estimated Costs of Implementing ICD-10 Diagnosis Coding," September 30, 2010, http://www.ahip.org/searchResults.aspx?searchtext=icd-10 costs (accessed April 3, 2015).
18. Carolyn Hartley and Stanley Nachimson, "The Cost of Implementing ICD-10 for Physician Practices—Updating the 2008 Nachimson Advisors Study," Nachimson Advisors, February 12, 2014.
19. Karen Blanchette, Richard Averill, and Susan Bowman, "Survey of ICD-10 Implementation Cost in Small Physician Offices," *Journal of American Health Information Management Association*, February 2015, http://journal.ahima.org/wp-content/uploads/2015/02/Week-2_PAHCOM-Survey-Results.final_POST.pdf (accessed February 23, 2015).

with long-term productivity loss in addition to substantial disruptions and declines in reimbursements. Most physicians believe that ICD-10 will adversely impact health care, and do not support its implementation. In fact, according to a 2014 Physicians Foundation Survey, more than 75 percent of doctors believe it will needlessly complicate coding, more than 50 percent believe it will create "severe" administrative problems, and 38 percent believe it will expose physicians to more liability, while only 11 percent think it will improve diagnosis and quality of care.[20]

Impact on Productivity. ICD-10 proponents claim that after the conversion, there will be significant gains in productivity among health care providers. However, a number of reports and studies have brought into question the validity of these claims. Nachimson Advisors assessed the potential cost of productivity loss to be anywhere from $8,500 to over $1.6 million per practice per annum, again depending on practice size.[21] Furthermore, the Nolan Company identified annual productivity losses due to the significantly more complex coding system to be anywhere from $300 million to $400 million for all providers nationwide.[22]

In addition to the above reports, at least one detailed case report examined the potential impact of ICD-10 on productivity. In the 2004 IFHRO (International Federation of Health Records Organizations) Congress & AHIMA (American Health Information & Management Association) Convention Proceedings, Kerry Johnson of the Canadian Council of Human Resources Associations reported on an internal case study done at a Canadian hospital after it transitioned to ICD-CA-10 (Canada's version of ICD-10) in 2002. Following implementation, a long-term 20 percent decline in coder productivity was observed. According to the report, the decline in productivity may be due "to the fact that codes are now more detailed, requiring a more rigorous search in the record for the detailed information."[23] A recent study suggests that long-term productivity loss among health care providers in the U.S. will likely be substantially larger.

A 2014 study published in *Perspectives in Health Information Management* found that "experienced" medical coders in the U.S. took 69 percent (17.71 minutes) longer to code an inpatient record with ICD-10, compared to ICD-9, and even those coders who were well trained in ICD-10 still took an additional 54.5 percent (14.7 minutes) longer per case.[24] Evidence suggests that more training may not mitigate much of the resulting productivity loss. To offset the decline in productivity, providers will likely need to hire more coders. For example, to prepare for ICD-10, Gwinnett Health System in Georgia has already added four coding auditors and four documentation nurses, and anticipates it will need to hire six additional coders this year.[25] These new hires add additional cost without improving patient care.

Even more important than the impact on medical coders is the significant productivity loss that physicians and nurses will experience after converting to ICD-10, as this will have a more direct effect on quality of care. Nachimson Advisors estimates that physicians will spend 15 percent longer working on documentation.[26] A specific consequence of ICD-10 that may lead to a productivity loss among physicians was highlighted in the 2014 study in *Perspectives in Health Information Management*. The authors observed that medical coders only agreed on which ICD-10 code to select for a given diagnosis or procedure half of the time, significantly less often than observed with ICD-9.[27] Therefore, coders will likely need to confer with physicians more frequently to

20. "2014 Survey of America's Physicians: Practice Patterns and Perspectives," Physicians Foundation, September 2014, http://www.physiciansfoundation.org/healthcare-research/2014-survey-of-americas-physicians-practice-patterns-and-perspectives (accessed April 6, 2015).
21. Hartley and Nachimson, "The Cost of Implementing ICD-10 for Physician Practices."
22. Nolan Company, "Replacing ICD-9-CM with ICD-10-CM and ICD-10-PCS."
23. Kerry Johnson, "Implementation of the ICD-10: Experiences and Lessons Learned from a Canadian Hospital," American Health Information Management Association, October 2004, http://library.ahima.org/xpedio/groups/public/documents/ahima/bok3_005558.hcsp?dDocName=bok3_005558 (accessed April 6 2015).
24. Mary H. Stanfill et al., "Preparing for ICD-10-CM/PCS Implementation: Impact on Productivity and Quality," *Perspectives in Health Information Management* (Summer 2014), http://perspectives.ahima.org/preparing-for-icd-10-cmpcs-implementation-impact-on-productivity-and-quality/#.VUKGvu90zIU (accessed April 30, 2015).
25. Ibid.
26. Hartley and Nachimson, "The Cost of Implementing ICD-10 for Physician Practices—Updating the 2008 Study."
27. Stanfill et al., "Preparing for ICD-10-CM/PCS Implementation: Impact on Productivity and Quality."

select the correct code for a given procedure or diagnosis. Time spent advising coders and documenting medical services means less time physicians have to spend evaluating, diagnosing, and treating patients. The end result is likely to be less-efficient, costlier, and lower-quality health care.

Impact on Reimbursements. The CMS conducted end-to-end testing from January 26 through February 3 of this year, after which it asserted that CMS systems are ready to accept ICD-10 claims. However, CMS readiness and provider readiness are two very different things. First of all, the testing was carried out on a limited, highly selected, sample of volunteer providers, frontrunners in terms of technology adoption and preparedness. Importantly, although the number of claims that were rejected because of CMS system problems was small, an overall 19 percent of claims were rejected, almost all due to errors by claims submitters. As pointed out by Robert Tennant, senior policy adviser for the Medical Group Management Association, if that same failure rate, for whatever reason, occurs on October 1, when the nation is to shift from ICD-9 to the more complex ICD-10 family of codes, the results would be "catastrophic."[28] The presumption that transitioning to ICD-10 will result in lower coding-error rates, and lower claims-denial rates, is also not supported by data or analytical reports. In fact, the evidence suggests that ICD-10 will likely cause significant reimbursement delays and disruptions. Even the CMS projects that in the early stages of implementation, denial rates will increase between 100 percent and 200 percent, and that payment delays, reflected in the number of days that a submitted claim remains in accounts receivable, will grow by 20 percent to 40 percent. In fact, the CMS has highlighted the need for reserve funds or lines of credit to offset cash-flow challenges during ICD-10 implementation.[29]

Securing credit may not be a viable solution, however. For instance, an analysis by Fitch Ratings details how reimbursement disruptions triggered by ICD-10 will negatively impact the credit of hospitals, making it much more difficult for them to acquire loans with affordable interest rates.[30] Additionally, claims-error rates are expected to climb more than twofold with ICD-10, reaching as high as 6 percent to 10 percent of all claims, according to a Healthcare Information and Management System Society publication.[31]

The increase in claims denials and errors will cause substantial cash-flow disruptions and a revenue shortfall for providers. Both the Nolan Company[32] and Nachimson Advisors reports agree that health care providers will observe significant reimbursement disruptions.[33] In addition, a recent study by the University of Illinois Cancer Center found that ICD-10 will result in a loss of clinically pertinent information that could affect roughly 5 percent of its billing cost. While 5 percent may not appear significant, the authors state that such a loss "could evaporate the operating margin of a practice."[34] According to survey data, smaller, solo, and two-physician practices are least likely to be ready for the transition and those practices are the ones that will be most threatened by a disruption in their revenue stream.[35]

28. "CMS: Latest End-to-End ICD-10 Testing Results Show Progress," iHealthBeat, February 26, 2015, http://www.ihealthbeat.org/articles/2015/2/26/cms-latest-endtoend-icd10-testing-results-show-progress (accessed April 29, 2015).
29. Healthcare Financial Management Association, "Readying Your Denials Management Strategy for ICD-10," 2013.
30. Business Wire, "Fitch: Non-Profit Hospitals Face Negative Credit Potential from ICD-10 Conversion," March 11, 2014, http://www.businesswire.com/news/home/20140311005796/en/Fitch-Non-Profit-Hospitals-Face-Negative-Credit-Potential#.VI85sCvF-So (accessed April 6, 2015).
31. Healthcare Information and Management Systems Society, "ICD-10 Transformation: Five Critical Risk-Mitigation Strategies," http://himss.files.cms-plus.com/HIMSSorg/content/files/icd10/G7AdvisoryReport_ICD10%20Version12.pdf (accessed December 29, 2014).
32. Nolan Company, "Replacing ICD-9-CM with ICD-10-CM and ICD-10-PCS."
33. Hartley and Nachimson, "The Cost of Implementing ICD-10 for Physician Practices."
34. Neeta K. Venepalli et al., "Identifying Clinically Disruptive International Classification of Diseases 10th Revision Clinical Modification Conversions to Mitigate Financial Cost Using an Online Tool," *Journal of Oncology Practice*, Vol. 10, Issue 2 (March 2014), p. 97, http://jop.ascopubs.org/content/10/2/97.full (accessed April 6, 2015).
35. Lisa Smith, "Many Physicians Still Unprepared for ICD-10," Medical Economics, November 6, 2014, http://medicaleconomics.modernmedicine.com/medical-economics/news/many-physicians-still-unprepared-icd-10?page=full (accessed April 29, 2015).

Beyond the reimbursement disruptions and increase in denials, health care providers will have to adjust their claims-denial management process following ICD-10 implementation, adding even further to the administrative burden. According to the Healthcare Financial Management Association (HFMA), appealing claims denials after ICD-10 implementation "will not strictly be a matter of clarification that can be handled by a nonclinical person in the billing office." In fact, "denials will raise questions about medical necessity or the clarity of medical documentation supporting a code."[36] This will result in more physician involvement in the appeals process in an effort to demonstrate that a procedure was medically necessary. In anticipation of ICD-10, the University of Pittsburgh Medical Center has recently hired a full-time physician just to handle the clinical aspects of claim denials.[37] This is another example of dead weight and lost time, money, and medical expertise that adds nothing to patient care.

Currently, physicians are experiencing a trend of declining reimbursements in real (inflation-adjusted) dollars while the cost to run a medical practice continues to grow. In addition to declining reimbursements, medical practices have experienced a 52 percent increase in general operating costs from 2001 to 2010, according to a 2011 report by the Medical Group Management Association.[38] The ICD-10 will only exacerbate the current trend of declining reimbursements in addition to making claims adjudication a more cumbersome and costly process, thereby placing significant financial strain on private practices.

The IT investments, productivity loss, and payment disruptions will increase the cost of running a medical practice. This is particularly concerning since, according to a survey of physician practice executives, the biggest challenge of running a medical practice is dealing with rising operating costs,[39] much of which is due to superfluous work required by federal and state regulations.[40]

Impact on the Health Care Workforce

Another consideration is the impact on the health care workforce. According to the recent congressional testimony of William Jefferson Terry, MD, of the American Urological Association, "many physician practices (especially the rural one- or two-physician practices) do not have the time, money, or expertise to follow and comply with the mounting regulatory challenges, which is why many are considering early retirement or opting out of the Medicare program."[41]

A substantial portion of the physician workforce is not prepared for this change. Given the annual threat of reductions in Medicare reimbursements, the burden of participating in multiple CMS quality-improvement programs and adopting health-information technologies to avoid steep financial penalties, and the expense of ensuring compliance with Medicare's ever-changing requirements and multiple audit programs, many physicians and their staff simply do not have the time or resources to focus on transitioning to ICD-10.

Given the fact that many of these practices are smaller, independent practices in rural locations with narrow operating margins, they may be forced to retire early or simply close their doors—and they will not be easily replaced. Another possibility is for physicians to give up private practice in favor of a position with a hospital or other large organization, thus exacerbating the current trend toward consolidation in health care.

Increased Consolidation. Health care market consolidation—which is in part a response to declining reimbursements, increased operating cost, and

36. Healthcare Financial Management Association, "Readying Your Denials Management Strategy for ICD-10," p. 2.
37. Ibid.
38. News release, "MGMA Survey: Medical Practices Cut Operating Expenditures 2.2 Percent in 2010," Medical Group Management Association, September 20, 2011, http://www.mgma.com/about/mgma-press-room/press-releases/2007-2012/9-20-11-mgma-survey-medical-practices-cut-operating-expenditures-2-2-percent-in-2010 (accessed February 3, 2015).
39. News release, "Medical Practice Executives Cite Financial Management Issues as Most Challenging," Medical Group Management Association, June 25, 2013, http://www.mgma.com/about/mgma-press-room/press-releases/medical-practice-executives-cite-financial-management-issues-as-most-challenging (accessed April 6, 2015).
40. Fred Hyde, "The Unintended Consequences of Regulation," Physicians Foundation, March 2013.
41. William J. Terry, testimony before the Subcommittee on Health, Committee on Energy and Commerce, U.S. House of Representatives, February 11, 2015.

increased administrative burden—has accelerated in the past few years. For instance, in 2012 there was a 50 percent to 60 percent increase in "hospital industry consolidation" compared to the years preceding the Affordable Care Act (2005 to 2007).[42] Additionally, the number of self-described independent practitioners has drastically declined, from 62 percent in 2008 to 35 percent in 2013, according to a survey of over 20,000 physicians.[43]

Considering that ICD-10 will cause severe administrative burdens and decreased reimbursements, it is likely that independent private practitioners, the traditional backbone of the U.S. health care system, will find it increasingly unlikely that they are able to remain independent. Therefore, increased market consolidation will be yet another unintended consequence of ICD-10 implementation.

Increased market consolidation is of particular concern, since market consolidation has been linked to increased health care costs and a decline in productivity among hospitals and physicians. Specifically, a study in the *Journal of Industrial Economics* observed that an increase in hospital market concentration leads to an increase in the cost of hospital care.[44] Furthermore, when doctors abandon private practice to become a hospital employee, their productivity falls by more than 25 percent on average.[45] Implementation of ICD-10 will only exacerbate the current trend of market consolidation.

Impact on Other Stakeholders

Implementing ICD-10 will not only impact health care providers, but health insurance companies and state governments as well. While this burden will be less direct than that placed on health care providers, the cost experienced by these entities will still have a significant impact on health care quality and cost, with a downstream impact on patients.

State Governments. ICD-10 implementation will require each state to update its Medicaid Management Information System (MMIS), which is vital to keeping Medicaid payments to providers flowing smoothly. The Nolan Company estimates that the total cost to governments will range from $700 million to $1.4 billion, exclusive of the costs to train medical coders and other administrative personnel.[46] It is doubtful that states are currently ready for this transition, nor is it likely that they will be on October 1, 2015. Annie Boyton, an ICD-10 training specialist, stated that 20 states have done nothing to update their systems for ICD-10.[47] Robert Tennant, director of health care information technology policy at the Medical Group Management Association recently said that "only two state Medicaid agencies have completed internal and external testing...[and] another 23 states are still updating their policies and systems."[48]

Health Insurance Companies. In the effort to prepare for ICD-10, health insurance companies will also need to upgrade their IT systems and train staff that handle claims. Additionally, historical data will need to be converted to the new standard, and two standards (both ICD-9 and ICD-10) will need to be maintained simultaneously for several years, as health plans are dependent on historical data for pricing. The total cost for the entire health insurance industry, according to the Hay Group, is estimated to be between $384 million and $867 million.[49] This study likely *under*estimates the total

42. Julie Creswell and Reed Abelson, "New Laws and Rising Costs Create a Surge of Supersizing Hospitals," *The New York Times*, August 12, 2013, http://www.nytimes.com/2013/08/13/business/bigger-hospitals-may-lead-to-bigger-bills-for-patients.html?pagewanted=all&_r=0 (accessed April 6, 2015).
43. "2014 Survey of America's Physicians," Physicians Foundation.
44. Jean M. Abraham, Martin S. Gaynor, and William B. Vogt, "Entry and Competition in Local Hospital Markets," National Bureau of Economic Research, September 2005, http://www.nber.org/papers/w11649.pdf (accessed April 6, 2015).
45. Scott Gottlieb, "The Doctor Won't See You Now. He's Clocked Out," *The Wall Street Journal*, March 14, 2013, http://www.wsj.com/news/articles/SB10001424127887323628804578346614033833092?mg=reno64-wsj&url=http%3A%2F%2Fonline.wsj.com%2Farticle%2FSB10001424127887323628804578346614033833092.html (accessed April 6, 2015).
46. Nolan Company, "Replacing ICD-9-CM with ICD-10-CM and ICD-10-PCS."
47. Stephen Hayes, "Code Chaos–Another Nightmare for Doctors, Courtesy of the Federal Government," *The Weekly Standard*, March 10, 2014, http://www.weeklystandard.com/articles/code-chaos_783576.html (accessed April 6, 2015).
48. John Commins, "GAO Outlook for ICD-10 Raises Questions," Health Leaders Media, February 11, 2015, http://www.healthleadersmedia.com/page-1/TEC-313051/GAO-Outlook-for-ICD10-Raises-Questions (accessed February 11, 2015).
49. Wildsmith, "Examining the Cost of Implementing ICD-10."

cost to health insurance companies, as Blue Cross Blue Shield of Massachusetts estimates it is spending $45 million to incorporate ICD-10.[50] Additionally, bearing in mind that claims denials will likely increase, health insurers will have to allocate more resources to handle denials and appeals. In order to offset these added costs, insurance companies have two options: decrease reimbursement to providers or increase health insurance premiums.

How Congress Can Improve Medical Reimbursement

Clearly, the ongoing efforts to implement the unfunded mandate of transitioning to ICD-10 have created a difficult situation for practicing physicians, as well as a difficult policy situation for lawmakers. Ideally, Congress should abandon the mandate that, beginning on October 1, 2015, all providers use ICD-10 as a requirement for reimbursement. However, this fails to recognize the investment that some providers have already made to meet the mandate requirement. Thus, Congress should take this opportunity to correct the misguided decision to conflate research goals with the reimbursement process, and:

- **Delink the ICD system from reimbursement policy and establish a more appropriate reimbursement process.** The basic policy objective should be to delink the ICD research tool from the billing process and establish a more appropriate system for reimbursement that makes the billing process less, not more, burdensome. Within three years, Congress should establish an alternative arrangement for reimbursement that is separate from the ICD disease classification system. Congress should, with input from the private sector and the medical profession, develop a reimbursement process that is flexible enough to accommodate future advances in medical technology without periodic disruptive overhauls.

  ICD-10 (or the most current ICD version) could be used to classify disease, collect mortality statistics, and serve as an extremely valuable research tool—but it would be separate from the billing process.

- **Allow providers to choose between ICD-9 and ICD-10.** As Congress develops a more appropriate coding system for billing purposes, providers should have the choice of using the current ICD-9 or the updated ICD-10 system.[51] Those providers who choose to remain with the ICD-9 could do so without penalty. Since a number of physician practices and other providers have already made a considerable investment in preparing for ICD-10, they could transition as a "demonstration." CMS would gather data on the ICD-10 from those providers who have adopted the updated system, offering real-world experience to inform the development of the new billing arrangement, which would be more meaningful than end-to-end testing on a limited sample of well-prepared practices. Congress could also decide whether to further mitigate the investments made toward preparedness by conferring credit through any one of the current mandatory reporting programs.

  At the end of the three-year period, providers using ICD-9, as well as those using ICD-10, for reimbursement would transition to the new billing system. If a more appropriate system can be developed before the end of this period, providers would have the option of adopting that system when it becomes available.

Conclusion

In principle, a more detailed disease classification system is a good thing. It may allow researchers to study disease and injury more easily and, over the long term, may foster better disease management. However, adoption of the new ICD-10 comes with significant costs and trade-offs. This unfunded

50. Steven Syre, "Code Book Changes Put Hospitals in Bureaucratic Bind," *The Boston Globe*, March 25, 2014, http://www.bostonglobe.com/business/2014/03/25/bird-bite-there-code-for-that-for-hospitals-bureaucratic-code-blue/jrYQi92XEJGMFwZ72afVQP/story.html (accessed November 14, 2014).
51. Although the CMS claims that it would be difficult or impossible to process claims in both systems, it is unclear why that should be the case. There will be some period of overlap during the transition from ICD-9 to ICD-10. It therefore seems reasonable that such an overlap period could be extended.

mandate not only perpetuates a misguided policy decision that confuses the disparate goals of research and reimbursement, but adds a significant financial and administrative burden on physician practices, especially smaller practices that do not have the resources to absorb the costs of transition. Congress should, through an equitable transition process, take this opportunity to delink research from reimbursement, abandon the mandatory implementation of ICD-10, and pursue the development of a billing system that is specifically designed to make the reimbursement process less, not more, burdensome for physicians and other health care providers.

*—**John Grimsley** is a graduate fellow at the Center for Health Policy Studies, of the Institute for Family, Community, and Opportunity, at The Heritage Foundation, and a medical student at Georgetown University. **John S. O'Shea, MD**, is a practicing surgeon and a Senior Fellow in the Center for Health Policy Studies.*