

M A R C H 2 0 0 5

**REPORT TO THE CONGRESS**

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# Medicare Payment Policy

**MEDPAC** Medicare  
Payment Advisory  
Commission

- Potentially avoidable admissions are hospitalizations due to conditions that if appropriately managed outside the hospital would have been avoidable. These claims-based measures are generally used to assess the quality of care for populations. Without further research, these would not be appropriate to assess the quality of individual physicians.
- Outcomes of care in settings of care outside the physician’s office would provide additional information and incentives for improving physician care and coordination of care across settings. Because of the need to align incentives across settings and the need for a broader array of physician measures, further analysis should explore how such linkages could be made.

### Patient experience

Patient self-reports of their experience of care are an important aspect of physician quality. When a standardized survey is ready, these self-reports could be included in a set of pay-for-performance measures. Surveys of patients reveal how involved patients are in their care and whether they understand their role in improving their health. Several large health plans and purchasers have been encouraging use of patient surveys on their experience of ambulatory care, and many pay-for-performance initiatives have included the concept in their measure sets. Much research has focused on this area in the last few years, and AHRQ is developing a standardized survey. AHRQ expects to release this standardized tool into the public domain within a year and it could become a part of the pay-for-performance measure set.

### Improving the administrative data available on the quality of physician care

Further development of physician measures based on administrative data is essential. Measures based on physician claims data will impose the least burden on physicians and CMS, at least until clinical IT is in wider use. Two types of information would greatly enhance measures derived from administrative sources—laboratory values and prescription data. The laboratory values and prescription data could be linked to physician claims using beneficiary and provider identifiers to provide a more complete picture of patient care.

## RECOMMENDATION 4F

**CMS should require those who perform laboratory tests to submit laboratory values, using common vocabulary standards.**

## RATIONALE 4F

This change would give Medicare a greater ability to assess the quality of physician care.

## IMPLICATIONS 4F

### Spending

- This recommendation should not affect federal program spending relative to current law.

### Beneficiary and provider

- This recommendation is expected to improve beneficiary quality of care.
- This recommendation will result in some increased burden for those who conduct laboratory tests.

Reporting laboratory values is not without precedent. Claims submitted by dialysis facilities must include laboratory values based on two types of tests. Our recommendation, however, would require those who perform the laboratory tests, including some physicians and hospitals, to submit the value to CMS.

To avoid creating a new data stream for laboratories and CMS, this information should be included on the claims form. The new information could be included in new or existing fields on the claims form or else reported as an attachment to the claims form. Including it as an attachment might make it easier to capture the more in-depth information and text necessary to describe some test results. Laboratories with electronic clinical information systems may find this easier than small laboratories or physician offices without electronic systems.

To ensure that the information reported is comparable, laboratories would need to use a standard format and vocabulary. The Logical Observations: Identifiers, Names, Codes (LOINC) standards are available and have been adopted by the federal government and supported by large laboratories and associations. Use of common vocabulary and messaging standards would also make it much easier for physicians and others to receive and use information from laboratories electronically. (We discuss this point in greater detail in the IT section of this chapter.)

Reporting laboratory information as a part of claims is not without burden. Industry representatives, both laboratories and physician groups, say that clinical and payment systems are currently separated and that it would take work to link them. They suggest it could be difficult to design fields in the claims form that would capture the variety of results reported, such as panels and text results. Further, while many in the industry use LOINC standards for some of their results and support their use more broadly, they say it will take time to develop strategies for applying the standards and for all laboratories, including those in physician offices, to redesign their systems.

Some have also expressed concern that because some types of test results come back after claims are submitted, this requirement could delay payment. However, clinical laboratory representatives told us they typically wait until test results are reported before submitting claims, so it does not appear this is a widespread problem.

To allow providers and CMS time to adopt standards and an infrastructure to collect this information, a two- or three-year transition before using it for pay for performance might be prudent. But adoption and implementation of standards must begin now.

Prescription data on beneficiaries and physicians who prescribe the pharmaceuticals would also greatly enhance physician quality measure sets based on claims. For example, prescription data could be used to identify patients with diabetes. Then the claims for those patients could provide information on whether they were receiving appropriate tests and examinations. Linked further with laboratory results, these data could then help determine whether patients' diabetes was under control. Some prescription information can also help identify whether medication errors are occurring in hospitals.

#### RECOMMENDATION 4G

**CMS should ensure that the prescription claims data from the Part D program are available for assessing the quality of pharmaceutical and physician care.**

#### RATIONALE 4G

CMS will have a much more complete picture of patient and physician care if it knows which pharmaceuticals have been prescribed and whether beneficiaries have filled their prescriptions. The data will help CMS determine who has certain conditions and whether, given their condition, they are receiving clinically appropriate care.

## IMPLICATIONS 4G

### Spending

- This recommendation should not affect federal program spending relative to current law.

### Beneficiary and provider

- This recommendation is expected to improve the quality of beneficiary care.
- This recommendation is not expected to affect providers.

In the proposed regulation describing how the Part D prescription program will work, CMS asked for guidance on the manner and format of such information. CMS already needs Part D data to develop its risk-adjustment methodology and to track beneficiary and program spending. The data elements required for quality measurement need not be complex: The name and dosage of the drug, the prescriber identification in a form to be linked with the national provider identifier, and the beneficiary's unique identifier are all that is necessary. These data could also be used to assess the quality of pharmaceutical care provided through the Part D drug benefit.

## Implementation issues

Differentiating payment to providers on the basis of quality is a significant step for Medicare. Having analyzed the measures and measurement activities, we find it is feasible to do so, but also recognize the many challenges ahead. Implementing this program will require Medicare to measure the care delivered by a broad spectrum of providers, collect and analyze significant amounts of new data, and continue research and assessment of measures. Some of these functions could be performed by CMS or under contract with CMS. Others could be separate from CMS but coordinated with this program.

### Addressing the scope of patient care

Providers see a wide variety of patients. Condition-specific measures are not yet available on every type of patient. However, measures of quality that cut across different types of patients are available. The measures we suggest be used in a pay-for-performance program, taken together, can be applied to every type of hospital,

Within the marketplace, vendors and consultants can provide technical assistance. However, vendors may not be an unbiased source of information. Specialty societies provide another alternative—some have begun to help their members with technical assistance. For example, the American Academy of Family Physicians (AAFP) has negotiated vendor discounts on hardware and software for its members, is conducting a small-scale pilot project on EHR adoption, and provides information resources through its Center for Health Information Technology. AAFP has also explored open-source medical software, which enables anyone to use or adapt the code and distribute it to others.<sup>15</sup>

Similarly, the American College of Physicians (ACP) is offering its members information and support for EHR implementation through its Practice Management Center and provides clinical decision support information through its Physicians' Information and Education Resource. Both the AAFP and the ACP are part of CMS's Doctors' Office Quality Information Technology (DOQ-IT) program, described below. In addition, the AMA and 13 medical specialty societies have joined the Physicians Electronic Health Record Coalition to help their members assess their needs, select products, and use EHRs.

Within the Medicare program, the QIOs may play this role as well, either directly or through subcontracts with other organizations. The DOQ-IT project sponsored by CMS is promoting the adoption of EHRs in small- and medium-sized physician offices. The four QIOs involved in the project assist physicians in evaluating alternatives, implementing systems, and using the EHR to improve quality. The physician support model developed under DOQ-IT will likely be the base for the Medicare Care Management Performance demonstration project mandated in the MMA. This project will incorporate use of IT and quality measurement in a pay-for-performance program, using measures developed in conjunction with NCQA.

The draft 8<sup>th</sup> scope of work requires all QIOs to provide technical assistance for information technology as a task, expanding on DOQ-IT. The QIOs will encourage physicians to adopt IT and also help them assess their system needs and implement work process changes. QIO performance will be measured, in part, through physician adoption and effective use of IT.<sup>16</sup>

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## Promote sharing of information across providers and patients

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Most patients find that the various actors involved in their care are not well coordinated, and information generated in one setting is not transferred to another setting efficiently, if at all (Coleman and Berenson 2004). One of the promises of health IT is to allow real-time, reliable transfer of information across providers and patients. For example, the results of tests performed in ambulatory settings would be available to doctors in the hospital. Changes in medications made during hospital stays could be available to primary care physicians after discharge. Data exchange could improve the information available for clinical decision making and reduce repeat tests and expenses for administrative tasks, perhaps leading to significant savings across the health care system (CITL 2004, Walker et al. 2005).

Achieving interoperability (creating electronic data sharing capabilities across providers) has been a goal of HHS for many years. Continuing work toward that end includes encouraging standards development, providing incentives for participants to use the standards, stimulating community efforts at information exchange, and addressing legal barriers. All of these efforts must also ensure the security and privacy of shared health information. Exchange of patients' health information for purposes of treatment, payment, and health care operations is allowed under the Health Insurance Portability and Accountability Act of 1996 (HIPAA). However, protocols for defining access rights, authenticating users, and securing data must be developed.

## Develop standards

The technical questions of how health IT systems can communicate involve what a system does (function), the types of information it contains (content), the language used to convey information (vocabulary), and how one system can transmit information to another (messaging). Standards are needed in each of these areas (Table 4-6 provides examples). The complexity of information used in health care and the numerous settings of care pose additional technical challenges. For example, a vocabulary used to provide lab test results (e.g., LOINC) is distinct from that used for billing (e.g., International Classification of Diseases, Ninth Revision [ICD-9]), which is distinct from one used for general clinical information (e.g., Systematized Nomenclature of Medicine [SNOMED]).

**Standards apply to multiple dimensions of health information technology**

Dimension	Sample standards with illustrative elements and descriptions
<p><b>Function:</b> What can the system do?</p>	<p><b>Electronic health record functional model</b></p> <ul style="list-style-type: none"> <li>• Maintain patient record</li> <li>• Maintain problem list</li> <li>• Maintain medication list</li> <li>• Create patient registries</li> <li>• Capture and report outcome measures</li> <li>• Generate reports</li> <li>• Follow appropriate security measures</li> <li>• Use accepted standards for terminology and messaging</li> </ul>
<p><b>Content:</b> What specific pieces of information will be included?</p>	<p><b>Continuity of care record</b> (under development)</p> <ul style="list-style-type: none"> <li>• Patient identifying information</li> <li>• Advance directives</li> <li>• Condition, diagnosis, or problem</li> <li>• Adverse reactions and allergies</li> <li>• Medications</li> <li>• Recent test results</li> <li>• Care documentation (dates and purposes of visits, names of practitioners seen)</li> <li>• Care plan</li> <li>• Practitioners</li> </ul>
<p><b>Vocabulary:</b> What language will be used to convey content?</p>	<p><b>Logical Observations: Identifiers, Names, Codes (LOINC)</b> ←</p> <ul style="list-style-type: none"> <li>• Coding system for laboratory results</li> </ul> <p><b>Systematized Nomenclature of Medicine (SNOMED)</b></p> <ul style="list-style-type: none"> <li>• Coding system for clinical terminology</li> </ul> <p><b>ICD-9-CM</b></p> <ul style="list-style-type: none"> <li>• Coding system for diagnoses</li> </ul>
<p><b>Messaging:</b> How will the content from one system be transferred to another?</p>	<p><b>Digital Imaging and Communications in Medicine (DICOM)</b></p> <ul style="list-style-type: none"> <li>• Protocols for transmitting digital images from one system to another</li> </ul> <p><b>HL7</b></p> <ul style="list-style-type: none"> <li>• Protocols for electronic data exchange in health care environments</li> </ul> <p><b>National Council for Prescription Drug Programs (NCPDP) SCRIPT</b></p> <ul style="list-style-type: none"> <li>• Protocols for transmitting prescription information from prescribers to dispensers</li> </ul> <p><b>RxHub Formulary and Benefit Information File Transfer Protocol</b> (currently proprietary)</p> <ul style="list-style-type: none"> <li>• Protocols to communicate formulary and benefit coverage information from payers and pharmaceutical benefit managers to prescribers</li> </ul> <p><b>X12N</b></p> <ul style="list-style-type: none"> <li>• Standard for electronic data interchange used in administrative and financial health care transactions</li> <li>• Compliant with HIPAA transactions standards</li> </ul>

Note: ICD-9-CM (International Classification of Disease, Ninth Revision, Clinical Modification), HL7 (Health Level Seven), HIPAA (Health Insurance Portability and Accountability Act of 1996).

Source: National Health Information Infrastructure 2004, Tessier 2004, National Committee on Vital and Health Statistics 2004, Health Level Seven 2004.

the best strategy, including a timeline and priorities for adoption and implementation to create a nationwide system of interoperable IT.

## Ensure standards are used

Development of a national health information network, as envisioned by HHS, will eventually provide broad guidance on how to achieve interoperability for all health information, one piece of which is ensuring standards are used. In the interim, other incremental actions may be needed to ensure that participants in the market use current standards.

Although many standards have been developed, most are not widely used, partly because adopting new standards requires reworking existing systems and developing detailed specifications to operationalize them. For example, moving from billing based on ICD-9 to a new vocabulary such as SNOMED would require providers and insurers to learn and retool their systems to use new codes to describe the work that is done and paid for.

However, when standards are not used, it is difficult for one provider to incorporate important clinical information from another provider into its own electronic records or a data repository. To do so can require abstraction and manual data entry, which is expensive and can introduce errors.

Making it feasible for physicians to obtain data from other sources—such as laboratories, radiologists, and pharmacies—can improve care and heighten physician demand for IT. Having current and historical information on lab results can help with patient management. Access to prescription data would give physicians information they do not currently have—namely, whether prescriptions were filled or refilled. Many of the quality measures for physician services require lab and pharmacy data, which today generally requires record abstraction to obtain. In addition, successful implementers of IT systems have noted that physicians greatly appreciate electronic access to this high-value information and making it available has generated greater willingness to undertake IT projects.

To encourage standardization, the federal government is adopting certain standards for use across all federal agencies. The Federal Health Architecture (FHA) brings together government agencies to promote common technical approaches and business processes and share infrastructures. Under the FHA, the Consolidated Health Informatics (CHI) initiative has focused on identifying

specific health standards.<sup>18</sup> By choosing standards for the federal government to follow, CHI provides direction while allowing private organizations to develop individual standards. To date, the CHI has adopted 19 standards.<sup>19</sup>

The government can also promote use of standards by requiring them for submitting data to the government, as was done in the HIPAA transactions standards for claims submission and will be done for e-prescribing under Medicare Part D. In our discussion of physician pay for performance (p. 196), we recommend that CMS require those who perform lab tests to submit lab values on claims, using common vocabulary standards.<sup>20</sup>

Many clinical labs currently share information with providers electronically, but generally not in a standard way. Accepted vocabulary standards for coding lab data (e.g., LOINC) and sending it (e.g., HL7) exist and have been adopted by the federal government. They are not required, however, and many labs still use their own, internally generated coding sets. In addition, they often send results as Web documents or in other formats that prevent incorporation of results into existing systems.

Lab results generally contain the same structured set of information, such as:

- the name of the test, including detailed specifications;
- the result of the test (or value);
- the units of measure for the test;
- the methodology used; and
- the normal range the lab uses to interpret results.

Standards would provide a common way of presenting this information. While the specific standards for submitting lab data to CMS would be derived through the regulatory process, the LOINC standard has been endorsed by the American Clinical Laboratory Association and the College of American Pathologists and is already used as an alternate code set by a number of the larger clinical labs. The costs of transforming lab data into a common format include mapping laboratory-specific local codes to the standard codes and ensuring that laboratory information systems can accommodate and transmit that information. Although large reference labs conduct many of the lab tests, smaller labs, and particularly labs in hospitals and some physician offices, also do testing. A phased approach could allow additional time for smaller labs to comply.

## Acronyms

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<b>AAFP</b>	American Academy of Family Physicians	<b>DHS</b>	designated health services
<b>AAP</b>	average acquisition payment	<b>DOQ-IT</b>	Doctors' Office Quality Information Technology
<b>ABMS</b>	American Board of Medical Specialties	<b>DRG</b>	diagnosis related group
<b>ACE</b>	angiotensin-converting enzyme	<b>DSH</b>	disproportionate share
<b>ACOVE</b>	Assessing Care of Vulnerable Elders	<b>EBITDA</b>	earnings before interest, taxes, depreciation, and amortization
<b>ACP</b>	American College of Physicians	<b>EHR</b>	electronic health record
<b>ACR</b>	American College of Radiology	<b>EPO</b>	erythropoietin
<b>ADL</b>	activity of daily living	<b>ESRD</b>	end-stage renal disease
<b>A&amp;G</b>	administrative and general	<b>FDA</b>	Food and Drug Administration
<b>AHRQ</b>	Agency for Healthcare Research and Quality	<b>FFS</b>	fee-for-service
<b>AIDS</b>	acquired immunodeficiency syndrome	<b>FHA</b>	Federal Health Architecture
<b>AIUM</b>	American Institute of Ultrasound in Medicine	<b>FTC</b>	Federal Trade Commission
<b>ALOS</b>	average length of stay	<b>GAO</b>	Government Accountability Office
<b>AMA</b>	American Medical Association	<b>GDP</b>	gross domestic product
<b>AMI</b>	acute myocardial infarction	<b>GPCI</b>	geographic practice cost index
<b>APC</b>	ambulatory payment classification	<b>HCFA</b>	Health Care Financing Administration
<b>APR-DRG</b>	all patient refined diagnosis related group	<b>HHA</b>	home health agency
<b>APU</b>	annual payment update	<b>HHS</b>	Department of Health and Human Services
<b>ASP</b>	average sales price	<b>HI</b>	Hospital Insurance (Medicare Part A)
<b>AV</b>	arteriovenous	<b>HIMSS</b>	Healthcare Information and Management Systems Society
<b>AWP</b>	average wholesale price	<b>HIPAA</b>	Health Insurance Portability and Accountability Act of 1996
<b>BBA</b>	Balanced Budget Act of 1997	<b>HL7</b>	Health Level 7
<b>BBRA</b>	Balanced Budget Refinement Act of 1999	<b>HMO</b>	health maintenance organization
<b>BCBS</b>	Blue Cross Blue Shield	<b>HQA</b>	Hospital Quality Alliance
<b>BIPA</b>	Medicare, Medicaid, and SCHIP Benefits Improvement & Protection Act of 2000	<b>IAC</b>	Intersocietal Accreditation Commission
<b>BLS</b>	Bureau of Labor Statistics	<b>ICD-9-CM</b>	International Classification of Diseases, Ninth Revision, Clinical Modification
<b>CABG</b>	coronary artery bypass graft	<b>ICU</b>	intensive care unit
<b>CAH</b>	critical access hospital	<b>IDTF</b>	independent diagnostic testing facilities
<b>CAHPS</b>	Consumer Assessment of Health Plans Survey	<b>IME</b>	indirect medical education
<b>CAPD</b>	continuous ambulatory peritoneal dialysis	<b>IOM</b>	Institute of Medicine
<b>CBO</b>	Congressional Budget Office	<b>IPA</b>	independent practice association
<b>CCHIT</b>	Certification Commission for Healthcare Information Technology	<b>IPPS</b>	inpatient prospective payment system
<b>CCI</b>	Correct Coding Initiative	<b>IT</b>	information technology
<b>CCPD</b>	continuous cycler-assisted peritoneal dialysis	<b>JCAHO</b>	Joint Commission on Accreditation of Healthcare Organizations
<b>CCR</b>	continuity-of-care record	<b>LDL</b>	low-density lipoprotein
<b>CHI</b>	Consolidated Health Informatics	<b>LOINC</b>	Logical Observations: Identifiers, Names, Codes ←
<b>CMS</b>	Centers for Medicare & Medicaid Services	<b>LUPA</b>	low utilization payment adjustment
<b>CPOE</b>	computerized provider order entry	<b>LVSD</b>	left ventricular systolic dysfunction
<b>CT</b>	computed tomography		
<b>CV</b>	coefficient of variation		