

April 22, 2008

The Honorable Michael O. Leavitt

Chairman

American Health Information Community

200 Independence Avenue, S.W.

Washington, D.C. 20201

Dear Mr. Chairman:

The American Health Information Community Quality Workgroup (QWG) was formed in 2006 and given the following broad and specific charges:

Broad Charge for the Workgroup: Make recommendations to the American Health Information Community so that breakthroughs in health information technology (health IT) can provide the data needed for the development of quality measures that are useful to patients and others in the health care industry, automate the measurement and reporting of a comprehensive current and future set of quality measures, and accelerate the use of clinical decision support that can improve performance on those quality measures. Also, make recommendations for how performance measures should align with the capabilities and limitations of health IT.

Specific Charge for the Workgroup: Make recommendations to the American Health Information Community that specify how certified health information technology should support the capture, aggregation, and reporting of data for a core set of ambulatory and inpatient quality measures.

This letter puts forth recommendations that advance the broad charge of the workgroup; a recommendations letter presented to the Community in March 2007 addressed the specific charge. In addition to the recommendations for the broad charge, this letter describes the QWG's approach to developing the recommendations, key themes that shaped the recommendations, and important activities occurring today that impact the recommendations. Appendix A contains a glossary of terms used in this recommendations letter and Appendix B contains a diagram that gives an overview of the roadmap of the QWG's vision for the future.

The Quality Workgroup's Approach to Date for the Broad Charge

In January 2007, the Quality Workgroup presented a vision for an ideal future state for quality measurement and improvement to the American Health Information Community (AHIC). The Quality Workgroup envisioned a future where transparent reporting of quality performance and quality improvement is used to inform decisions about patient

care in a system that is both information-driven and patient-focused. Thus, the vision incorporates an expectation that quality measurement and improvement activities will evolve from a site-centric focus to a patient-centric focus. This evolution will require new policies and technical advancements to collect, aggregate and analyze longitudinal data to evaluate and improve the quality of patient care over defined time periods and across care settings, at both the individual and population levels. Moreover, the future state is strongly informed by the perspective that the use of health IT can improve quality by both reducing reporting burden and driving improvements in care at the point of delivery.

After gathering testimony and conducting research, the Quality Workgroup undertook a requirements analysis in August 2007 to define the capabilities and policies needed to achieve the vision. The requirements analysis identifies enablers and barriers in today’s environment and summarizes the policy, technical, and business requirements throughout the health IT and quality communities needed for successful operation in the future environment.

Based on the requirements analysis, the Quality Workgroup developed a vision roadmap during Fall 2007 that articulates a path forward for developing the health IT capabilities needed to achieve the future state by 2014. The vision roadmap is predicated on several themes from the vision and articulates key changes that must occur over the next six years. However, these key changes will require the identification of sources of funding and business models over this period of time to support the creation of the infrastructure that will enable data sharing and aggregation.

Key Themes from the Vision Roadmap

The roadmap is made up of twelve components that can be further divided into policy-related components and technical data-oriented components as shown in the exhibit below. Please see Appendix B for the detailed vision roadmap.

| Vision Roadmap Policy Components | Vision Roadmap Technical Data-Oriented Components |
|--|---|
| <ul style="list-style-type: none"> • Business Case / Incentives • Measure Set Evolution • Legal Framework for Data Sharing • Data Stewardship • Patient and Provider Record Matching • Patient Record De-Identification • Data Exchange and Aggregation | <ul style="list-style-type: none"> • Quality Data Set • Expanded Data Element Standardization • Coding Improvements • Patient and Provider-Oriented Clinical Decision Support |

The following key themes emerged from the vision and inform the vision roadmap:

- **Patient-centric quality measurement:** The patient-centric emphasis in the broad charge indicates a need for longitudinal quality measurement and improvement, where data is collected and used to inform quality improvement across care settings and over time, thereby putting the patient at the focal point of any improvement efforts.
- **Payment reform as an accelerator:** Payment reform is required to create incentives for both better-coordinated, high-quality health care and the development of a health IT infrastructure to enable the exchange of health information across care settings.
- **Importance of data exchange and aggregation:** Patient-centric care requires data exchange between providers and across care settings. Data aggregation is needed to create population-level metrics for the purpose of longitudinal quality measurement and improvement. Policy decisions and industry consensus must be established in order to further develop existing strategies and technological solutions, which include, but are not limited to: interoperable IT systems; protocols for physician and provider matching; and rules related to privacy and security.
- **Alignment around national priorities for quality measurement:** A national priority setting process will focus the development of measures, the needed enhancements to medical coding, and the development of IT specifications and standards related to interoperability, data export and storage that are necessary to allow efficient assessment of the nation's progress towards quality goals.
- **Proactive consideration of health IT needs to support quality:** The links between quality measurement and improvement and health IT need to be addressed proactively to achieve the future state of the vision. In the current system, quality measures are developed in silos within care settings, necessitating measure data harmonization in the testing and maintenance phases of measure development across care settings and across measure sets, and expending significant resources. A common set of data types or elements, i.e., a quality data set (QDS), can be used across quality measure development, health IT standards development and harmonization, guideline development, and clinical decision support during the design of measure sets to increase efficiency, lower net costs, and ultimately facilitate better care coordination.
- **Support for a multi-source data strategy:** Much of the work toward the future state vision can begin now; there is no need to wait for full electronic health record (EHR) adoption. A multi-source data strategy can make use of existing sources of data (paper-based and electronic, administrative and clinical) for quality measurement while also integrating increasing amounts of clinical data from EHRs as it becomes available. An advantage of a multi-source data strategy would be the availability of cost of care data at the point of care so that providers are better able to make cost-effective decisions as appropriate.

The vision roadmap provides guidance for the efforts of current and future quality improvement efforts for groups such as the AHIC and its successor. The Quality Workgroup recognizes that the scope of the vision roadmap is quite broad. Therefore, the workgroup has chosen a few components about which to make formal recommendations, areas where substantive progress could be made within the next year and which have the potential to create a cycle of progress towards the eventual realization of the future state vision. The recommendations are focused on improving the quality of data used for quality measurement and reporting through:

1. Facilitating the alignment of initiatives to develop and implement measures for quality improvement.
2. Developing and implementing a quality data set to support quality measurement and reporting.
3. Prioritizing the creation of standards for structuring selected clinical data.

Relevant Organizations and Projects

Several key activities are occurring in parallel with the work of the Quality Workgroup. These activities offer opportunities for alignment with the vision roadmap and within the quality community's measure development process, and offer potential inputs to a quality data set.

The *National Committee on Vital and Health Statistics (NCVHS) Quality Workgroup* submitted a report to the Secretary of the Department of Health and Human Services (HHS) on January 28, 2008, titled "Quality Measurement and Public Reporting in the Current Health Care Environment." The report focuses on the emerging use of a multi-source data model to measure and report quality, and offers ten recommendations in the areas of public reporting, data quality, performance measurement reporting infrastructure, and the evolving landscape of performance measures and EHRs.

At the direction of the Agency for Healthcare Research and Quality (AHRQ), and in fulfillment of a prior Quality Workgroup recommendation, the *National Quality Forum's Health Information Technology Expert Panel (HITEP)* has completed an initial effort to prioritize and define types of data elements for inclusion in EHRs to facilitate standardized measurement and reporting for a core set of HQA and AQA measures. Some of the recommendations from the HITEP have gone forth to the Healthcare Information Technology Standards Panel (HITSP) as inputs to the interoperability specifications to support the Quality Use Case. HITSP's harmonized interoperability standards, which have been accepted by the AHIC and will in time be endorsed by the Secretary of the Department of Health and Human Services, will become requirements for EHR certification by the Certification Commission for Healthcare Information Technology (CCHIT). These data types could be considered as foundational inputs to a quality data set.

The *National Quality Forum* has begun working in partnership with other leadership organizations to establish national priorities and goals for performance measurement and public reporting through its *Priorities Partners* committee. The *Priorities Partners* committee anticipates releasing their first set of national priorities for conditions as well as certain cross-cutting areas in the summer of 2008.

The *Centers for Medicare and Medicaid (CMS)* is currently developing its Continuity Assessment Record and Evaluation (CARE) instrument which will contain key data items to support care transitions. In the Deficit Reduction Act of 2005, Congress required CMS to develop a uniform assessment instrument to measure and compare Medicare beneficiaries' health and functional status across provider settings, at intervals, and over time, upon hospital discharge. CMS is also required to test the instrument's usefulness in a 3-year demonstration that would start in early 2008. With this instrument, CMS is taking advantage of an opportunity to move from the paper-based tools of the past to an internet-based application for data collection.

The Better Quality Information to Improve Care for Medicare Beneficiaries (BQI) Project is a CMS-funded quality improvement organization (QIO) special project in which the Delmarva Foundation for Medical Care has subcontracted with six communities, or pilot sites. These pilot sites are testing methods to aggregate Medicare claims data with data from commercial health plans and, in some cases, Medicaid, in order to calculate and report quality measures for physician groups and, in some cases, individual physicians. The results from this project will be used to guide future efforts for aggregating Medicare claims data with data from other payers to produce quality measure results that provide a more comprehensive picture of the quality of services being provided by physicians to Medicare beneficiaries.

The *Joint Commission* has developed a proposed list of data items that should be transferred with a patient from a hospital to another provider setting, whether by a paper or electronic system. The items were chosen because they represent areas that have high impacts on safety and quality of care but were not being addressed by other health IT organizations. This data set was originally intended for use within the Joint Commission's activities yet could become part of a data set across organizations.

The *Quality Alliance Steering Committee (QASC)* is a collaborative effort among existing quality alliances, government, physicians, nurses, hospitals, health insurers, consumers, accrediting agencies and foundations to dramatically improve the quality of health care across the U.S. The vision of QASC is to advance high-quality, cost-effective, patient-centered health care through the coordination of the various groups that are working to promote public reporting of health care provider information. QASC is currently testing approaches to combining summary provider information from Medicare and private health plan data at the national level, as well as developing a roadmap for integration of administrative data and other data streams (e.g., clinical registries, laboratory and imaging results reporting) to support quality measurement and reporting.

AHRQ recently convened a meeting of medical specialty societies and other selected experts to discuss strategies to obtain and use data needed for quality improvement and to move measurement from an environment of “data convenience” to an environment where clinical guidelines drive development of clinical decision support and quality measures. During this meeting, participants discussed the need for a data strategy that would involve the coordination and alignment of standards for structured clinical data to support effective use of clinical guidelines, clinical decision support and quality measurement. The outcomes of this meeting, and any follow-up meetings, will be useful input for the activities recommended below.

The *Nationwide Health Information Network (NHIN)* is intended to provide a secure, nationwide, interoperable health information infrastructure that will connect providers, consumers, and others involved in supporting health and healthcare. Often referred to as a “network of networks,” the NHIN will enable health information to follow the consumer, be available for clinical decision making, and support appropriate use of healthcare information beyond direct patient care to improve health. Now in its second year of development, the NHIN has awarded several grants for trial implementations through state and regional health information exchanges. Participants will implement and test the NHIN specifications, including the 2007 Quality Use Case, and demonstrate their connectivity to other networks.

Plans are now underway to establish a successor to the AHIC as a public-private partnership based in the private sector by fall 2008. The *AHIC successor* will be independent and sustainable and will bring together the best attributes and resources of public and private entities. This new public-private partnership will develop a unified approach to realize an effective, interoperable nationwide health information system that supports the health and well-being of the people of this country.

Recommendations

The Workgroup has identified the following actionable recommendations to meet the broad charge.

1. Facilitate the alignment of initiatives to develop and implement measures for quality improvement.

In its vision, the QWG states, “To realize the future vision, a unified national agenda for quality measurement must be developed and must be aligned with the common framework for measurement and use standard definitions of terms to the extent possible. Measure developers will have to collaborate to facilitate measure harmonization and vendors will have to collaborate with the National Quality Forum (NQF) and quality measurement organizations to encourage development and implementation of common conventions and guidelines for measure development.”

The QWG believes that quality improvement efforts and health IT efforts could become better aligned to achieve this vision, creating synergies among currently siloed efforts in

order to streamline and automate the quality measurement that would lead to improvement in the quality of care. More specifically, HHS and the Quality Workgroup have recognized an ongoing need to help coordinate the alignment of initiatives to develop and implement measures for quality improvement across multiple public and private organizations. In response to that need, staff from the Office of the National Coordinator for Health IT (ONC) and members of the Quality Workgroup organized two meetings of representatives of relevant organizations in Fall 2007, resulting in the documentation of the existing and future measure development process with a set of diagrams. The organizations represented at these meetings included ONC, AHRQ, CMS, National Quality Forum, HITSP, CCHIT, Integrating the Healthcare Enterprise (IHE), and the AMA-NCQA Collaborative. The participants at these meetings have expressed a common desire to continue meeting regularly and more formally to further align the various initiatives. The intent would be to identify areas of overlap or areas where gaps exist with the goal of enhancing efficiency in the measure development process, while avoiding the creation of extra burden for participating organizations.

Recommendation 1.1: HHS, including the Office of the National Coordinator for Health IT and the Agency for Healthcare Research and Quality, in coordination with the Quality Alliance Steering Committee and the AHIC successor, should convene forums at regular intervals through December 2008 in order to facilitate the alignment of quality improvement and health information technology initiatives; in particular, those initiatives supporting quality measure development and implementation. Representatives of specific organizations should be included in the forums, such as the Centers for Medicare and Medicaid Services, the Federal Health Architecture, NIH/National Library of Medicine, the National Quality Forum, HITSP, CCHIT, Integrating the Healthcare Enterprise (IHE) and the AMA-NCQA Collaborative. Additionally, representatives of organizations such as guideline developers, AQA, HQA, the Joint Commission, and standards development organizations (SDOs) may be invited. As an outcome of the forums, HHS, in collaboration with the represented organizations, should develop a plan by October 28, 2008, for continued public-private cooperation to align the initiatives.

2. Develop and implement a quality data set to support quality measurement and reporting.

The Quality Workgroup recognizes opportunities to advance standardization of the data elements that are inputs into quality measures and care coordination efforts by supporting the development and implementation of a quality data set. The QDS refers to a minimum set of data elements or types of data elements that can be used as the basis for developing harmonized and machine-computable quality measures. More specifically, the QDS will serve as the basis for prioritizing data elements for inclusion in EHRs and other health IT systems and for prioritizing the development of standards for interoperability, data export, and data storage and for prioritizing related certification criteria.

It is anticipated that the development of the QDS will be dynamic and iterative. The efforts to define the QDS will need to be anchored in the clinician's view of data that is

important for exchange across caregivers and sites of care to support high quality, coordinated care. At the same time, the QDS must enable evaluation of that care and support the evolving quality measurement landscape, which is being articulated, in part, by the National Quality Forum's Priorities Partners initiative. The QDS will facilitate the exchange of information across providers, institutions, and care settings to support care coordination and transitions across care settings, thereby promoting a more patient-centric approach to care delivery and a longitudinal approach to quality improvement. The QDS will also serve as a means to communicate clearly to providers and EHR vendors about which data elements need to be reliably and accurately captured. The improved availability of certain data elements will support the implementation of clinical decision support systems that enhance patient care.

The value proposition for the establishment of the QDS is the savings for several stakeholder groups that could be realized by increasing the efficiency of the measure design and data definition process. Currently, significant resources are expended by measure endorsers to reconcile measure definitions across settings and to reconcile data definitions across measure sets. IT vendors often must respond to these multiple data definitions, hampering efforts to streamline product implementation and provider workflow. If measure sets and data definitions were harmonized during the design of measure sets, rather than downstream during the testing and maintenance phases of measure development, much of this retro-fitting work could be avoided and efficiencies could be realized.

Recommendation 2.1: HHS, including the Agency for Healthcare Research and Quality and the Centers for Medicare and Medicaid Services, should collaborate with key private sector stakeholders, including measure developers, health IT vendors, clinicians, providers, and quality organizations, to define a quality data set that would support quality measurement that is automated, patient-centric, and longitudinal with the goal of improving care delivery and outcomes. The quality data set should include, at a minimum, relevant data captured during inpatient and physician office visits, and data required to support transitions of care among other provider settings.

Recommendation 2.1.1: By December 31, 2008, the collaborative effort named in recommendation 2.1 should review existing data sets used for quality measurement, including those developed by the Centers for Medicare and Medicaid Services for its CARE tool, by the HITEP in its initial work, by the Joint Commission for transfers of care, and by others as appropriate, as the basis of a harmonized minimum set of data types or elements that can be used for automating quality measures. The effort should also incorporate into the harmonized quality data set those data types or elements needed to support measure sets and national priority areas. The effort should assign a priority level to each data type or element within the quality data set as an aid to implementation.

Recommendation 2.1.2: The Centers for Medicare and Medicaid Services, in expanding its set of quality measures, should work with the HHS Indian Health

Service, the Department of Veterans Affairs, and the Department of Defense to test the effectiveness of the harmonized minimum set of data types or elements, as developed in Recommendation 2.1.1, to capture and aggregate data from electronic health records.

Recommendation 2.1.3: HHS, in coordination with the Quality Alliance Steering Committee and the AHIC successor, should maintain the minimum quality data set over time, modifying the quality data set as needed to address new measures and national priorities for quality measurement, and obtaining feedback on the quality data set from measure developers, health IT vendors, clinicians, providers, and quality organizations.

Recommendation 2.2: Within three years following the identification of a quality data set, the Centers for Medicare and Medicaid Services should promote the use of the quality data set in its requirements for quality measurement and reporting across care settings.

Recommendation 2.3: To accomplish some quality objectives, electronic health records must not only exchange data but also use and store certain data types or elements within electronic health records. Therefore, the Healthcare Information Technology Standards Panel (HITSP) should identify the data standards needed to fill identified gaps for inclusion of the identified quality data set for use in both ambulatory and inpatient electronic health records.

Recommendation 2.4: The Certification Commission for Healthcare Information Technology (CCHIT) should consider developing the appropriate criteria necessary to support the inclusion of the identified quality data set in both ambulatory and inpatient electronic health records. This requirement should be submitted for inclusion on the CCHIT Roadmap in sufficient time for implementation in 2010.

3. Prioritize the creation of standards for structuring selected clinical data.

Currently, most quality measures are based on data abstracted from paper records or from administrative data. Administrative data is easily accessible, structured, and standardized, but lacks clinically rich information. Clinical data, on the other hand, is not easily accessible or useable. However, the common consensus among the quality improvement and health information technology communities is that structured clinical data could help drive significant improvements in the quality of health care delivery. Progress to create this structure has been slow and could benefit from increased coordination across standards development organizations (SDOs).

Greater standardization of clinical data would facilitate consistent and complete capture of clinical information in EHRs and support the use of clinical decision support tools. Additionally, clinical data could be used to help providers and quality improvement professionals better understand outcomes and other aspects of patient care. Greater standardization of clinical data would also support near-term efforts to develop

“clinically-enriched” data sources to support quality measurement and reporting. The QASC is currently developing a roadmap for aggregating administrative data and clinical data (e.g., registries, laboratory results reporting, medications) to produce clinically-enriched data sources capable of supporting a broader range of quality measurement and reporting requirements.

Recommendation 3.1: The Agency for Healthcare Research and Quality, in collaboration with the Office of the National Coordinator for Health IT and in consultation with NIH/National Library of Medicine, should conduct an environmental scan of current initiatives where electronic clinical data is being used to inform quality improvement initiatives in order to identify areas where data standards for structured clinical data are needed. Initiatives for review include, but are not limited to, the Better Quality Information to Improve Care for Medicare Beneficiaries (BQI) pilots and the Nationwide Health Information Network (NHIN) Trial Implementation sites. In preparing the environmental scan, which should be completed by November 30, 2008, experts could be convened from the BQI and NHIN sites that have experience in combining clinical and administrative data from multiple sources.

Recommendation 3.2: The Agency for Healthcare Research and Quality, in collaboration with Office of the National Coordinator for Health IT and in consultation with NIH/National Library of Medicine, should use the results of the environmental scan from Recommendation 3.1 as well as the work of the National Quality Forum’s Health Information Technology Expert Panel (HITEP) to develop recommendations to the Healthcare Information Technology Standards Panel (HITSP) for the identification of standards for structuring clinical data. These recommendations should be submitted to HITSP by January 31, 2009.

Recommendation 3.3: Through its convening function, the Agency for Healthcare Research and Quality, in collaboration with the Office of the National Coordinator for Health IT and in consultation with NIH/National Library of Medicine, should produce an action agenda by March 31, 2009. The action agenda should prioritize areas for structuring selected clinical data used across care settings, and identify opportunities to align efforts that are already underway to create standards related to clinical data. This work should be guided by an expert panel comprised of members of the EHR vendor community, clinicians, providers, specialty societies, standard development organizations, the National Quality Forum, guideline developers, measure developers, health plans, the Quality Alliance Steering Committee, the AHIC successor and others as appropriate, to ensure that standardization of documentation is aligned with care delivery and the development of executable guidelines and automatable quality measures.

These recommendations are supported by information obtained through research and testimony to the Quality Workgroup, which is contained in the supporting documents available at <http://www.hhs.gov/healthit/>.

Thank you for giving us the opportunity to submit these recommendations. We look forward to discussing these recommendations with you and the members of the American Health Information Community.

Sincerely yours,

Carolyn Clancy
Co-chair
Quality Workgroup

Richard Stephens
Co-chair
Quality Workgroup

Appendix A: Glossary of Terms Relevant to the Quality Data Set

Data Element: A discrete unit of data (such as patient birth date or principal diagnosis) of interest to an organization. It is a unit of data for which the definition, identification, representation, and permissible values are specified by means of a set of attributes.

Data Format: A description of the allowed format for the values of a data element.

Data Standard: A standard that will enable information systems to exchange clinical systems in a private and secure manner both within and between institutions.

Data Strategy: A well-defined approach to collecting and using data to support a business process that:

- has been agreed upon by a group of experts
- has been publicly vetted
- provides rules, guidelines, or characteristics
- helps to ensure that materials, products, processes, and services satisfy the needs that result from the intended use of the data
- is available in an accessible format
- is subject to an ongoing review and revision process

Data Type: A group or category of data elements.

Data Value: One of the allowable values of a data element.

Measure Specification: Detailed instructions necessary to convert health care data into a quality measure

Quality Data Set: A minimum set of data types or elements that can be used as the basis for developing harmonized and machine-computable quality measures. The QDS will serve as the basis for prioritizing data elements for inclusion in EHRs and other health IT systems and for prioritizing the development of standards for interoperability, data export, and data storage and for prioritizing related certification criteria.

Sources: HITSP Glossary v.1.0; Quality Use Case; The Joint Commission Specifications Manual for National Hospital Quality Measures, Version 2.3b; Connecting for Health; wikipedia.org; National Quality Forum's Health Information Technology Expert Panel report

Example:

Data Type: Diagnosis

Data Elements: Principal Diagnosis, Secondary Diagnoses

Data Value: Principal Diagnosis = 428 Heart Failure

Data Standard: ICD9-CM

Data Format: alphanumeric

In this example, the data element is included in both the numerator and denominator statements of many measure specifications. To produce a measure, data elements are connected through algorithms which specify sequences of retrieval, aggregation and required values for data elements.

Appendix B: A Roadmap for Developing Health IT Capabilities to Achieve the Quality Workgroup Vision

| Future State Components | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|--|--|---|
| Policy: Incentives* | Small but increasing evidence base from existing P4P/VBP programs | Payment principles established | Consensus reached on paying for value | Payment changes and reforms created and tested | |
| Legal Framework for Data Sharing* | HISPC reports released (2007) | | States agree on common framework | | States harmonize regulations and statutes addressing privacy and security |
| Data Stewardship | Broad agreement on need | Policies & procedures developed | Sample HIE agreements developed | Stewards identified | Stewards certified & compliance w/ rules established |
| Data Exchange and Aggregation | Limited aggregation (primarily claims data) | Increased aggregation for P4P (increased use of clinical data) | Scalable data model exists | Established longitudinal (multi-source patient-centric) data used including clinical and claims data | aggregation |
| Infrastructure: Clinical Decision Support | CDS use is not standardized | Pilot studies of standardized CDS implemented | Best practices for patient-centric CDS established | Best practices for patient-centric CDS incorporated into certification criteria | EHRs w/CDS and other CDS tools certified |
| Measure Set Evolution* | Setting-specific metrics used; NQF exploring episodic measures | Consensus-based patient-centric quality metrics identified and field tested | | Single set of patient-centric quality metrics used | |
| Data Element Standardization | NQF HITEP identifies data element types | Standards identified for elements needed for quality measurement on an ongoing basis | | Standards for quality measurement incorporated into EHR certification process | |
| Quality Data Set | Preliminary efforts by CMS (CARE tool) and NQF (HITEP) | Minimum QDS established for core measures | QDS expanded for additional measures (e.g., structural, outcome) | QDS includes data elements for longitudinal, patient-centric measures | |
| Coding Improvements | Classification systems (e.g., ICD-9) that facilitate billing are used for quality | Ongoing efforts to improve coding of diagnoses and clinical care, mapping across coding systems, and guidance | | CMS regulates conversion to ICD-10 | |
| Patient & Provider Record Matching | Multiple methods used; demos and pilots in place | Technical principles and best practices established | | Accountability for matching methods established | |

Long Description: Image is a chart depicting the future state components for the years 2008 through 2013; this is only a notational draft. Regarding the component Incentives, 2008 will hold small but increasing evidence base from existing P4P/VBP programs; 2009 will have payment principles established; 2010 will have consensus reached on payment reform; 2011 will have payment change/reform legislated; end of 2012 to beginning of 2013 will have payment change/reform implemented. For the component Legal Framework for Data Sharing, 2008 will have HISPC reports released (2007), 2009 will have states agree on common framework, and end of 2010 through 2011 will have states harmonize regulations and statutes addressing privacy and security for data sharing. For the component Data Stewardship, the beginning of 2008 will have broad agreement on need; end of 2008 and beginning of 2009 will have policies and procedures developed; end of 2009 will have sample HIE agreements developed, 2010 will have stewards identified, and the end of 2010 and all of 2011 will have stewards certified and compliance with rules established. For the

component Data Exchange and Aggregation, 2008 will have limited aggregation (primarily claims data), 2009 will have increased aggregation for P4P (increased use of clinical data); 2010 will have an existing scalable model, and 2011 and 2012 will have established longitudinal aggregation (Multi source patient-centric data used including clinical and claims data). The component Measure Set Evolution will have for 2008 a setting specific metrics used and NQF exploring longitudinal measures; 2009 and 2010 will have consensus-based patient-centric quality metrics identified and field tested; and 2011 will have a single set of patient-centric quality metrics in use. The component Quality Data Set will have preliminary efforts by CMS (CARE tool) and NQF (HITEP) in 2008; 2009 will have minimum QDS established for core measures; 2010 will have QDS expanded for additional measures (structural, outcome), and 2011 and 2012 will find QDS including data elements for longitudinal, patient-centric measures. The component Data Element Standardization will find that 2008 will have NQF HITEP identify data element types, 2009 and 2010 will have standards identified for elements needed for quality measurement on an ongoing basis; 2011 and 2012 will have standards for quality measurement incorporated into HER certification process. The component Coding Improvements will find that 2008 will bring classification systems (e.g., ICD-9) that facilitate billing are used for quality reporting; 2009-2011 will find ongoing efforts to improve coding of diagnoses and clinical care, mapping across coding system and guidance; in 2011 CMS will regulate conversion to ICD-10. For the component Patient & Provider Record Matching, 2008 will have multiple methods used and demos and pilots in place; 2009 will have technical principles and best practices established, end of 2010 and beginning of 2011 will have accountability for matching records established. For the component Clinical Decision Support, in 2008 CDS use is not standardized; end of 2007 and beginning of 2009 will have pilot studies of standardized CDS implemented; end of 2009 into 2010 will have best practices for patient-centric CDS established; end of 2010 through 2011 will have best practices for patient-centric CDS incorporated into certification criteria; 2010 will have EHRs with CDS and other CDS tools certified.