NATIONAL QUALITY FORUM

Interim Report from the National Quality Forum: Priority Setting for Health Workforce—A Draft Conceptual Framework and Draft Environmental Scan

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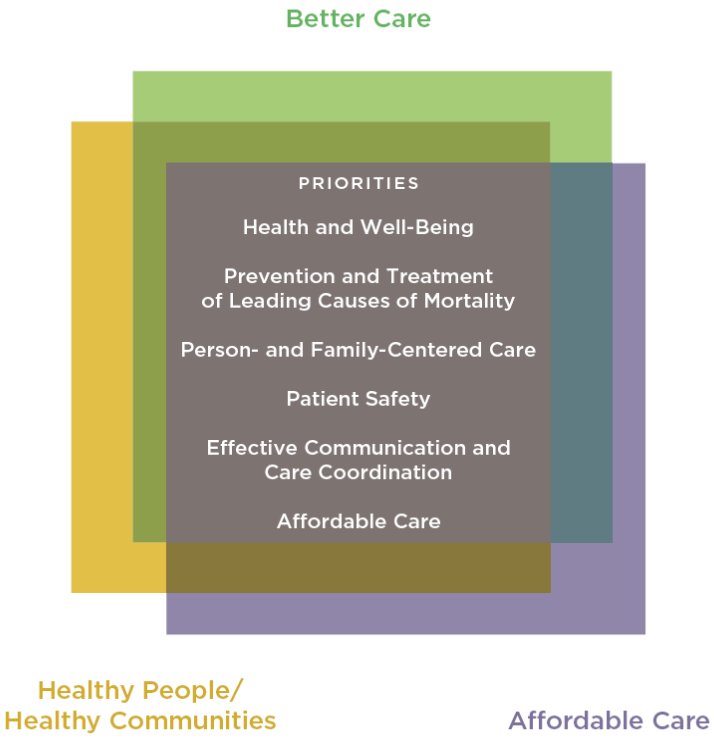
Project Purpose and Scope

Over the past ten years, the use of U.S. healthcare performance measurement has exploded, yet it is widely recognized that many gaps in important measurement areas still exist. Section 1890(b)(5) of the Social Security Act requires the National Quality Forum (NQF), as the consensus-based entity, to describe gaps in endorsed quality and efficiency measures in the Annual Report to Congress and the Secretary of the Department of Health and Human Services (HHS). Building on work done by NQF in 2011 and 2012 on the status of measure gaps more broadly, this project is intended to further advance the aims and priorities of the National Quality Strategy (Figure 1) by identifying priorities for performance measurement; scanning for potential measures and measure concepts to address these priorities; and developing multistakeholder recommendations for future measure development and endorsement.

Figure 1: National Quality Strategy Aims and Priorities



In 2013, HHS contracted with NQF to focus on five specific measurement areas, including:

- Adult Immunizations
- Alzheimer's Disease and Related Dementias
- Care Coordination
- Health Workforce
- Person-Centered Care and Outcomes

The recommendations generated through this project will be instrumental in aligning broader measure development efforts by ensuring that financial and human resources are strategically targeted to lead us to the measures that matter to patients and families, and that will drive improvement in health and healthcare.

Setting Priorities for Health Workforce Performance Measurement

Guided by a multistakeholder committee, this project will consider and prioritize opportunities to measure workforce deployment in the context of prevention efforts and care coordination. The work is intended to broaden the current scope of measurement related to workforce considering elements across the spectrum of healthcare delivery, and examine opportunities for measurement beyond healthcare delivery.

Research addressing the size and distribution of the healthcare workforce is plentiful but less attention has been given to the deployment of the healthcare workforce to promote effective prevention and care coordination—particularly for the elderly, individuals with multiple chronic conditions and complex care needs, critically ill patients, patients receiving end-of-life care, children with special needs, residents in long-term care settings, homeless people, and people who are dually eligible for Medicare and Medicaid. The focus of this work includes examining workforce education, training and skills to employ new team-based care approaches to provide high quality, culturally competent care, in order to increase the capacity of health organizations, medical homes and other new models of care delivery. The integration of electronic health records and interactive systems into infrastructures supporting the workforce, and recruitment and retention practices will also be explored. Another consideration will be mechanisms for shared accountability for population health between communities and the healthcare delivery system.

This work is intended to provide public and private stakeholders, including policymakers, healthcare providers and systems, and educational institutions with the resources and knowledge to advance performance measurement to optimally deploy the healthcare workforce in ways that promote effective prevention and care coordination.

General Approach and Timeline

NQF will use the approach and processes shown in Figure 2 and as detailed below to complete this project.

Figure 2: Four Step Process for Health Workforce Priority Setting Project

Convene Multistakeholder Committee

NQF will convene a 20-member committee with diverse representation and knowledge of workforce issues pertaining to prevention and care coordination, including representatives from the fields of primary care, behavioral health, allied health, public/population health, cultural competence and diversity, health disparities and safety net providers, Long-Term Services and Supports (LTSS) home and community-based care including both ambulatory and inpatient setting-based services, and consumers or their intermediaries. A small advisory group was formed immediately upon contract award to provide guidance to NQF on the draft conceptual measurement framework while the full committee was being seated. NQF met with the advisory group via web meeting in October 2013, and will meet with the full committee in a web meeting in January 2014, at an in-person meeting in April 2014, and once more by web in July 2014. Please see Appendix A for the full committee roster, which includes these advisors.

NQF also has engaged with a group of federal government partners—the DHHS Health Workforce Interagency Workgroup—in a consultative role. With ongoing exchanges between the two, it is expected that the work of these two groups will align well with and complement one another.

Identify a Conceptual Measurement Framework

In consultation with HHS and with input from advisory members, NQF will develop a conceptual framework for measurement that captures elements necessary for successful and measureable workforce deployment. The draft framework will offer measure domains and subdomains that align with the triple aim of improving health, quality, and cost. The framework will build on existing resources and frameworks listed in Appendix B, including NQF's *Multiple Chronic Condition Framework*, the Agency for Healthcare Research and Quality's (AHRQ) *Clinical-Community Relationships Measures Atlas* and *Care Coordination Measures Atlas,* and the Institute of Medicine's (IOM) *Health Professions Education: A Bridge to Quality*. The framework will be shared with the DHHS Health Workforce Interagency Workgroup for feedback. The framework is intended to complement the framework developed by NQF's parallel project focused on care coordination. Finally, the framework will be further informed and modified based on input from the full health workforce committee members once they are fully convened.

Environmental Scan of Measures and Measure Concepts and Analysis of Gaps

NQF staff, in consultation with the multistakeholder committee and DHHS colleagues, will complete an environmental scan of measures and measure concepts that map to the domains and subdomains of the identified conceptual framework, set for review by the full committee in the January 2014 web meeting. An initial scan to of the sources listed in Appendix C was conducted to identify measure concepts and performance measures and inform the early work of this project. These include structure, process, outcome, efficiency, patient experience, population health, and satisfaction measures as they pertain to effective prevention and care coordination through a workforce lens. While measurement of workforce deployment is in its infancy, measures were identified in the domains of training and development; infrastructure; recruitment and retention; experience; clinical,community and cross-disciplinary relationships; capacity and productivity, and workforce diversity and retention.

Committee Recommendations and Priorities for Performance Measure Development

The intent of this project is to provide guidance to the field regarding priorities for performance measure development, and additional research needs when the evidence is insufficient to provide a clear path to measurement in a priority area. In future meetings, the committee will discuss important considerations regarding measurement in this area including level of evidence, and feasibility of and challenges to

workforce measurement. These recommendations will be synthesized and submitted to HHS in a final report to be delivered in August 2014.

Draft Conceptual Framework

A wide range of measures will be needed to assess and improve health and healthcare quality to achieve the NQS aims of better care, affordable care, and healthy people and communities. This section of the report provides an overview of the draft conceptual framework that the multistakeholder committee will refine and use in its analysis and prioritization of measurement needs for the health workforce to improve prevention and care coordination.

The draft framework is expected to enable the committee to identify and prioritize areas for measurement and identify existing measures and measure concepts that could successfully address workforce deployment in targeted domains. The framework aims to connect workforce inputs--training and development, recruitment and retention, delivery system infrastructure and community integration supports, and assessment of community and workforce needs—with intermediate outcomes of improved experience of work and care, clinical, community and cross-disciplinary relationships, workforce capacity and productivity, and diversity and retention.

While focused on the professional and paraprofessional workforce, the use and roles of community health workers and safety net providers in promoting prevention and care coordination and reducing disparities in these areas is a key concept in the framework. The framework is intended to encompass measurement across settings and across the lifespan. The framework also envisions how these concepts could be measured through accountable entities and reported at appropriate levels of analysis. Key influencing factors such as policy and regulation, specific community needs and resources, workforce trends, population demographics and data sources also are represented in the framework. These reflect important overarching issues that may impact performance measurement and are intended to provide context to inform committee discussions.

As previously mentioned, NQF consulted existing frameworks as a starting point in developing a draft framework, guided by the recommendations of advisors, HHS, and a review of the literature. The following resources were particularly informative during this phase of the project:

- AHRQ's Care Coordination Measures Atlas (CCM Atlas)
- AHRQ's Clinical-Community Relationships Measures Atlas and Evaluation Roadmap (CCRM Atlas)
- IOM's Health Professions Education: A Bridge to Quality
- NQF's Multiple Chronic Conditions (MCC) Measurement Framework

Framework Definitions

Defining key terms related to workforce deployment is fundamental for measure development. Recognizing the importance of scoping the draft framework, NQF began by seeking early input from the advisors regarding definitions of key importance to this work, including the definition of workforce, primary care, care coordination, and health. The advisors recommended moving forward with the following working definitions.

Workforce. The World Health Organization (WHO) defines the healthcare workforce as "all people primarily engaged in actions with the primary intent of enhancing health." The WHO definition notes that workers are not just individuals but are integral parts of functioning health teams in which each member

contributes different skills and performs different functions. The advisors recommended including non-clinical workers as well as health systems workers to the definition, thus broadening the scope beyond traditional health caregivers. As a result, the term workforce includes the clinical workforce (e.g., physicians, nurses, behavioral health professionals, oral health professionals, allied health); the non-clinical workforce (e.g., public health and human service professionals); and long-term services and supports (LTSS) personnel. The concept of working at the "top of license/practice" will be examined in terms of increasing the effectiveness and efficiency of the workforce, particularly as workforce shortages in certain areas intensify.

Care Coordination. The advisory group agreed to adopt the CCM Atlas' broad definition of care coordination as "the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of healthcare services. Organizing care involves the marshaling of personnel and other resources needed to carry out all required patient care activities and often is managed by the exchange of information among participants responsible for different aspects of care." In keeping with the CCM Atlas, successes and failures in care coordination will be captured in the draft framework from the perspective of patients and families, healthcare professionals, and system representatives.

The CCM Atlas notes that patients perceive care coordination failures in terms of unreasonable levels of effort required on the part of themselves or their informal caregivers during transitions between healthcare entities. Healthcare professionals in turn consider instances when patients are directed to the "wrong" place in the healthcare system or have poor health outcomes as a result of poor handoffs or inadequate information exchanges as failures to effectively and efficiently coordinate care. They also perceive failures in terms of unreasonable levels of effort required on their part in order to accomplish necessary levels of coordination during transitions among healthcare entities. The CCM Atlas also includes the perspective of systems of care (e.g., accountable care organizations (ACOs)), whose goal is to integrate personnel, information, and other resources to carry out all required patient care activities between and among patients and families in order to better coordinate care. System representatives perceive failures in coordination as those that affect the financial performance of the system and when a patient experiences a clinically significant negative outcome resulting from fragmented care.

As recommended by the advisors, the experience of care coordination from the perspective of the community and volunteer workforce also will be considered since views from these different perspectives may be important for comprehensively measuring the performance of the health workforce in coordinating care and providing preventive care.

Primary Care. The advisors agreed to the IOM definition of primary care as "the provision of integrated, accessible health services by clinicians who are accountable for addressing a large majority of personal healthcare needs, developing a sustained partnership with patients, and practicing in the context of family and community." The definition was developed by the IOM Committee on the Future of Primary Care as part of a 2-year study to address opportunities for and challenges to reorienting healthcare to place greater emphasis on the function of primary care. Initial work on the draft framework also is informed by the CCRM Atlas, which focuses on the role of a primary care practice in providing for and recognizing the need for preventive health services, including arranging for the delivery of services not provided in the primary care setting (i.e., providing referrals to community resources), as well as the differentiation between clinics/clinicians and community-based resources.

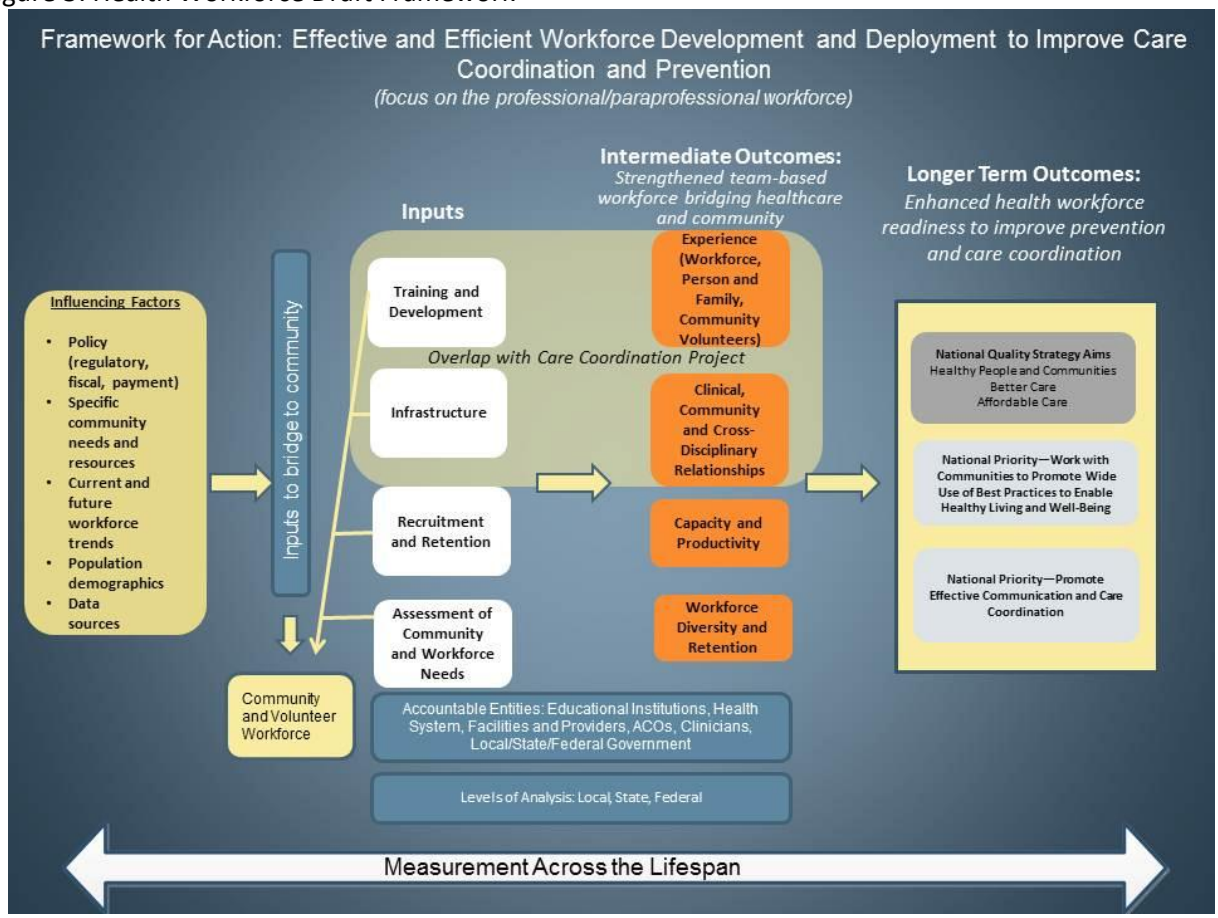
Health. Per the advisors' suggestion, the WHO definition of health will be incorporated into the work to reflect the goal of overall well-being: "Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity."

Framework Structure

In conceptualizing the framework illustrated below in Figure 3, the advisors agreed that a framework for effective and efficient deployment of the health workforce to improve the coordination of patient care and improve prevention strategies should be grounded by the National Quality Strategy (NQS). They also recommended a broad approach to the framework, suggesting that it encompass measurement across the life-span and for measurement opportunities beyond clinical settings. With the potential for significant overlaps of inputs and intermediate outcomes with NQF's Care Coordination measure prioritization project, close coordination between project teams will be important.

While the framework will primarily focus on the paid professional and paraprofessional workforce as perhaps the most ripe and feasible areas for measurement, the advisors suggested capturing and examining the impact and roles of lay and community workers in the community setting (i.e., clinical-community impacts). This is consistent with the CCRM Atlas, which finds that a clinical-community relationship exists when a primary care clinician forges sustained relationships with community resources to provide certain preventive services such as tobacco screening and counseling or when the clinical practice and the community resource engage in at least one strategy for working together—networking, coordinating, cooperating, or collaborating. In the course of this work, inputs, intermediate outcomes, long-term outcomes, and influencing factors will be mapped in accordance with these guiding principles.

Figure 3: Health Workforce Draft Framework



Longer-Term Outcomes. Following discussions about the approach to this project, the advisory group recommended the logic model approach to the framework seen above. Beginning with the end in mind, the framework's overarching goals include the three broad aims of the NQS focused on better care, healthy people/communities, and affordable care. Although workforce is a critical element to achieve all six national priorities within the NQS, this project will take a specific focus on the priorities of prevention and care coordination, specifically:

- Working with communities to promote wide use of best practices to enable healthy living
- Promoting effective communication and coordination of care

These priorities will be one mechanism to ensure the project remains adequately focused and that the committee is able to develop clear priorities for a path forward.

Inputs. Guided by early feedback from the advisory group, the draft framework is oriented toward the professional and paraprofessional workforce. Inputs included in the framework are categorized as training and development, infrastructure, recruitment and retention, and assessment of community and workforce needs.

Training and development may include training that is intended to allow workers to deliver care in new models of care such as ACOs, patient centered medical homes (PCMHs) and dental homes, and other coordinated systems of care such as integrated healthcare networks that harmonize primary care with acute inpatient and post-acute long-term care. These models will require the caregiving disciplines to work together in a more coordinated effort over time. Faculty development and training should be included in this category to ensure education will reflect changes to the healthcare delivery system and interprofessional team-based care. In addition, continuing education will be critical to ensure the advancement of a workforce that will meet the needs of patients and the system.

The committee may consider recommending a common set of core competencies and training for specified workforce roles, such as:

- Interprofessional collaborative practice, readying the workforce to practice effective and team-based care;
- Person-centered care, including sensitivity to health literacy and cultural competency;
- Patient and family engagement and inclusion in care, including needs assessment, goal setting and creating plans of care;
- Quality measure data collection and reporting, including analyzing results and sharing best practices;
- Prevention methods, including guidelines, care standards, and literature analysis;
- Use of electronic health records (EHRs) and health information technology (HIT)
- Knowledge of and familiarity with community needs, norms, and resources and principles of population health;
- Practice-based learning and improvement, including an understanding of social science, economics, and professionalism; and
- Systems-based practice, including new models of care delivery (e.g., ACOs, PCMHs).

Infrastructure may address supports for clinicians, organizations, and systems to better coordinate people and processes. Measurement in this area may address the degree to which a sustainable organizational infrastructure exists to leverage technology and collaborative practice, to optimize service capacity and relationships between workforce and community, and to support the workforce in

efficiently and effectively improving quality. This category includes HIT infrastructure (such as use of EHRs and teleheath/telemedicine capabilities), scope of practice policies, enhancements meant to improve access to care, organizational structure, and delivery system design (including participation in ACOs, PCMHs, or other new models of care).

Recruitment and retention may encompass hiring practices and retention strategies, including those that improve diversity. This also includes onboarding, orientation, and career development to ensure employees are well trained and prepared to not only be effective healthcare providers, but to be confident and satisfied with their role. This will be critical and is expected to result in reduced turnover and higher employee satisfaction. Workforce forecasting and needs-based recruitment may also be considered within this category.

Assessment of Community and Workforce Needs may address strategies to measure the social, cultural or geographic needs of a given population or community in terms of workforce capacity and deployment. This will be critical to ensure an optimal workforce composition that possesses the necessary skills, cultural diversity and competency, or other critical elements to meet the needs of a specific community.

Intermediate Outcomes. The inputs previously described are expected to lead to the desired intermediate outcome of a strengthened team-based workforce, bridging health system resources with the communities they serve. Specifically it is expected that there will be improvement in workforce satisfaction and **experience of care delivery**, in patient and family experience of care, and in the community's experience interacting with the health workforce. It is expected that **clinical and community relationships** will be strengthened by increasing knowledge and familiarity of practitioners with community resources; using team-based plans of care; using surveillance systems to monitor population health; improving coordination with financial, education and social services to support patient care and strengthen inter-organizational relationships, all with the goal that both practitioners and community resources are proactive and ready in the provision of care.

Improved **workforce capacity and productivity** is anticipated, with improved effectiveness and efficiency in the provision of care and improved geographical distribution of the workforce. Capacities may be resources, such as infrastructure (including HIT), trained personnel, and response mechanisms that are utilized for workforce deployment (structural elements), while productivity may include functional actions that an organization is capable of taking to identify and respond to patient and community needs to deliver more efficient and effective care. **Diversity** and cultural competency of the workforce is expected to be improved with increased minority representation and improved cultural competency of the workforce. Finally, increased focus on workforce needs ideally will result in improved **retention**.

Ultimately, improvement in these areas is expected to improve the outcomes articulated in the NQS, and as part of the prioritization of measurement areas, the committee should articulate specific targets.

Influencing factors. The committee will need to consider measurement opportunities within the context of important influencing factors, including policy constraints such as regulations, fiscal realities, and changing payment models. Additionally, influencing factors include the diverse needs and resources of communities; current and future workforce trends and needs (e.g., an aging workforce); population demographics (including social and cultural factors); and data elements and sources needed to inform evidence-based measurement. A discussion of accountability and its potential for limiting measurement feasibility will also be considered, and may inform recommendations for future work.

Draft Environmental Scan of Measures and Measure Concepts

The accompanying Excel spreadsheet encompasses NQF's draft environmental scan of measures and measure concepts related to health workforce mapped to the framework domains specified above. The scan included a review of 5,962 measures imported from the sources listed in Appendix C. A total of 252 measures were identified as potential health workforce measures based on their broader applicability to the content area. When possible, measures and concepts were tagged according to the measurement domains emerging in the draft conceptual measurement framework described above. Table 1 provides a snapshot of the number of identified measures and their initial domain categorization. As the domains are not mutually exclusive, a small number of measures were thought to be relevant to more than one domain. The full draft scan was submitted as a deliverable to HHS.

Table 1: Environmental Scan of Measures by Domain

Health Workforce Domain	Number of Measures
Training and Development	99
Experience with Care	78
Workforce Capacity and Productivity	46
Infrastructure	34
Clinical, Community and Cross-Disciplinary Relationships	22
Staff Experience	7
Workforce Diversity and Retention	3
Recruitment & Retention	2
Assessment of Community and Workforce Needs	0

Large sets of measures were found related to training and development, mostly related to professional educational programs and the number of graduates in specific health professions. Although many measures of patient and family experience of care related to workforce performance were identified, few measures capturing workforce experience were found. Workforce capacity and productivity measures proved to have a substantial presence, especially those related to geographical distribution and skill mix. A significant number of measures related to infrastructure were also identified, a majority of which were specifically focused on the ability to use HIT to provide care and access to primary prevention services. Additionally, a significant number of measures addressing clinical, community and cross-disciplinary relationships, specifically the coordination of care with specific community resources was established. Considering the path forward for performance measurement, opportunities may exist for more measures on the other identified domains where there are few measures available or none at all.

Next Steps

Committee Input to Finalize Framework

The health workforce committee will meet via web in January 2014 and will provide input on the draft conceptual framework, consider high-priority opportunities for measure development and endorsement, and discuss promising measure, measure concepts and remaining gaps in critical measurement areas.

Continuation of Scan for Measures and Measure Concepts

Through the help of the committee, NQF will conduct an additional scan of measures and measure concepts to capture the finalized framework domains. Additionally, in early 2014 NQF will begin soliciting measure concepts through NQF's new Measure Inventory Pipeline, which will serve as an important source of information for HHS and other stakeholders on new measure development efforts in the broader healthcare community. NQF staff will conduct outreach to specific stakeholder groups to encourage the submission of measures that may address specific measure gap areas, and will encourage the committee to assist with this outreach.

Committee Recommendations on Priorities for Performance Measurement

A two-day in-person meeting is scheduled for April 2014 during which the committee will use its finalized framework and environmental scan to identify and prioritize gaps in quality measurement related to healthcare workforce deployment. The group will also identify areas in which quality measures are inadequate to address existing domains. The final conceptual framework, environmental scan and recommendations for prioritized measure development will be delivered to HHS in August 2014.

Appendix A: Health Workforce Committee Roster

COMMITTEE MEMBERS	
Evaline Alessandrini, MD, MSCE	Cincinnati Children's Hospital Medical Center
Howard Berliner, ScD	Service Employees International Union (SEIU)
Barbara Brandt, PhD	University of Minnesota
Melissa Gerdes, MD	Methodist Health System
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Jean Moore, BSN, MSN	State University of New York at Albany School of Public Health
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Jon Schommer, PhD	University of Minnesota
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Karen Adams	Vice President, Strategic Partnerships
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