

BACKGROUND:

Community Health Centers. First funded by the Federal Government as part of the War on Poverty in the mid-1960s, Community Health Centers (CHCs) were developed to provide accessible, affordable personal health care services for people living in medically underserved individuals and communities. Barriers which may be addressed include financial, ethnic, cultural, geographic, linguistic, housing status, and sexual identity. The mission encompasses quality, access, and responsiveness to particular needs of the community served. Predating the Medical Home concept, the CHC model embraces a comprehensive view of Health incorporating multidisciplinary aspects of care both directly and through coordination of community and tertiary care based services. Typical services include primary and preventive care (Including Pediatrics, Internal Medicine, OB/GYN, and Family Practice), dental, behavioral health, nutrition, case management and health education.

Some facts about CHCs:

- Nearly 1,100 health center grant recipients operate more than 7,000 community-based clinics
- One of every 19 people living in the U.S. now relies on a HRSA-funded clinic for primary care.
- HRSA-supported health centers treated more than 16 million people in 2008.
- Nearly forty percent of patients treated have no health insurance and one-third are children

The clear focus on quality, while respecting limitations in resources, has led Health Centers to explore strategies to promote efficiency. Since 1998, over 66% of the currently existing health centers nationally have participated in an organized system improvement effort called the HRSA Health Disparities Collaboratives. Based on the Chronic Care Model and structured after the Institute for Healthcare Improvement Breakthrough Series approach, the program has promoted:

- adoption of evidence based practice standards,
- use of information systems to track patient status with regard to these recommendations to provide clinical decision support, manage populations and track and report progress on improvement initiatives
- a structured approach to performance improvement and infrastructure for Health Centers to share experience and effective
- Promulgation of nationally recognized clinical quality measures.

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HDC focused on the chronic disease conditions of highest importance to the health centers in terms of cost, volume of patient visits, and/or complexity of care needed. In addition to the Chronic Disease Collaboratives, HDC Pilots have focused on Prevention, Diabetes Prevention, Cancer Screening, Finance, Access, as well as Perinatal and Patient Safety.

In addition to the quality measures developed through the HDC, Health Centers have been subject to multiple national and local quality reporting requirements. These include:

- HRSA Core Measures (within UDS requirements)
- HIV measures – Ryan White/HIVQUAL
- State required reporting
- Third party payer measures
- Measures for individual funding programs (private/public)

Health Center Controlled Networks and the Alliance of Chicago Community Health Services.

Recognizing that the model of promoting relatively small, community responsive Health Centers is at odds with Health System forces driving consolidation into large health care systems, the Health Resources Services Administration who funds the Health Centers created the Health Center Controlled Networks (HCCN) Initiative. HCCNs represent an infrastructure in which groups of Health Centers can share infrastructure while maintaining autonomy. HRSA has used the Network Infrastructure for the majority of its investment in HIT, recognizing the depth of resources and expertise required.

The Alliance of Chicago Community Health Services (Alliance) represents a successful HCCN. In support of improving quality and access, the Alliance operates a common, centrally hosted EHR shared by a 28 Safety Net Health Centers operating out of more than 100 delivery sites in 10 States. Building on the HDC experience, the emphasis has been on advanced functionality including clinical decision support and performance reporting on national performance measures incorporating all elements of Community Health Center services. The Alliance is a vehicle not only to support the centrally hosted EHR, but to promote adoption and use of health information technologies and the data and information provided to improve care delivery and services for the Safety Net populations served. The Alliance has four strategic pillars:

- The Hosted EHR community
- Health Information Technology Innovation
- Research and Data Use
- Technical Assistance and Consulting

SUMMARY

- **CHCs represent a significant, organized successful sector delivering a comprehensive model of primary care reflecting many desirable health system features contemplated in Health Reform.**
- **CHCs have a long experience in tracking and reporting on quality measures at National and local levels.**
- **CHCs have a well established model for data driven application of evidence based practice recommendations and performance improvement**
- **The Federal investment Health Center Controlled Network model to support adoption of HIT has resulted in examples of advanced use and an infrastructure for sharing data and performance improvement strategies.**

1. **Why are clinical quality measures important to you and your community? Please comment on the evolution of traditional claims-based quality measures into clinical quality measures based on EHR data.**

As outlined in the background above, Health Centers are driven to use of quality measures both to meet funding and reporting requirements, as a tool to guide design of programs and improvement efforts, and to facilitate system change efforts. On the national level, required clinical quality measures have largely been HRSA required UDS measures, (which include core clinical measures), HDC measures, and Ryan White HIV measures. Having national level quality measures has helped the Health Centers document the care they provide, as well as provide a basis for collaboration and learning. These are supplemented by local and institutional level quality measures relevant to the individual Health Center.

Manual collection of these measures is extremely labor intensive, often inaccurate, and limits improvement efforts. As Health Centers adopted Practice Management Systems, reporting became automated where it possible based upon administrative and claims based data. Some clinical measures such as lab results data, physical observations such as blood pressure or immunization status) could not be collected through these means. Through creative workarounds such as creation of ‘dummy ‘ procedure codes and specialized procedure groups or service locations, Health Centers learned to extend reporting capabilities of the Practice Management systems beyond simple claims based reports. However this approach has limitations and sometimes created unintended or difficult to manage complications to the databases.

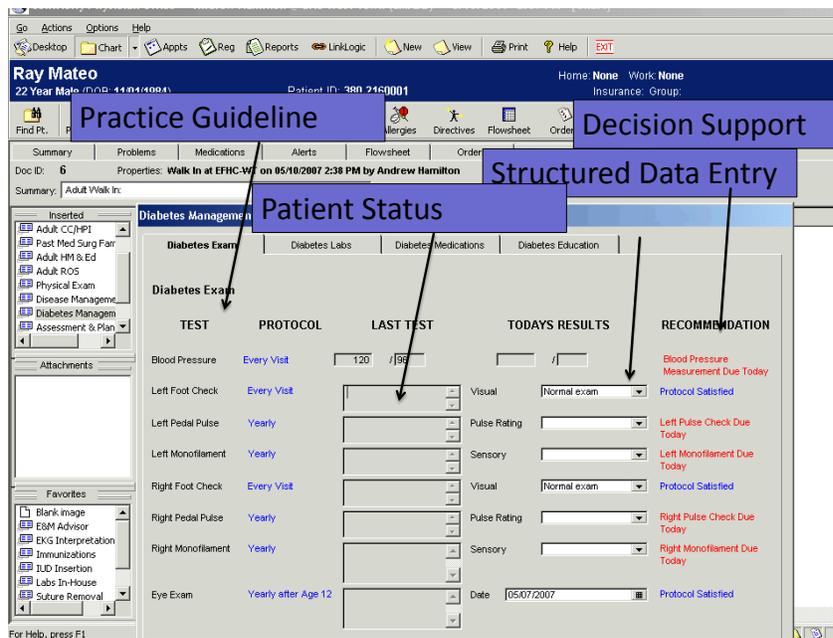
This led Health Centers to adopt disease management registries, including PECS, a system developed through the HDC program. Use of these systems requires labor intensive data entry in most cases, and since it is separated from the actual care process, is limited in the ability to provide real time clinical decision support.

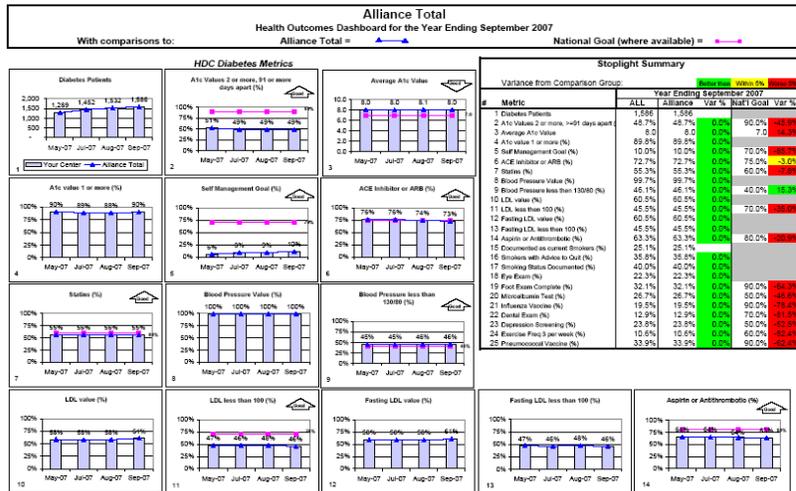
Goals for EMR adoption in CHCs has been greatly informed by this experience with quality measures. By greatly expanding the clinical concepts available for reporting and clinical decision support, and integrating data collection and analytics into care process, an EMR has held the obvious promise for Centers seeking to promote evidence based care and to evaluate process and outcomes across the spectrum of services provided and populations served. Integrating quality measurement into the EMR expands capacity to collect data more frequently consider the universe of relevant patients in

numerator and denominator, and offers the potential to link quality measurement to clinical decision support at the point of care where it is actionable at individual patient level.

2. **How is your organization using clinical quality measures and patient reported data? Please provide a specific example.**

The Centers comprising the Alliance share a vision for the robust use EHR as envisioned by the Institute of Medicine Report on key capabilities and now reflected in concepts of meaningful use. This led the Alliance, through funding by the Agency for Healthcare Research and Quality and HRSA to partner with the AMA, GE Healthcare, Health Research and Education Trust and others to incorporate consensus quality care measures and associated clinical decision support into an EMR. Below is a sample end user screen demonstrating incorporation of Diabetes guidelines, followed by a dashboard summary used to provide population level reports back to the Health Centers on these measures:





These kinds of screens and data capture methods are in use across all Alliance sites, and the dashboards are issued monthly. In addition, sites have ability to design and run their own reports and/or to vary the parameters on the standard reports. The aim is to create a loop, linking patient level status with regard to recommendations at point of care where action can be taken, to the ability to view performance at provider, practice and system levels where it can be actionable.

Each organization has incorporated the quality measures into its performance improvement initiatives, developing responses to the data and tracking improvements. For example, Erie Family Health Center utilizes the dashboards to guide yearly meetings with providers to look at our outcomes and target areas improvement is most needed. The providers choose 3-5 quality goals to focus on during the year. The providers then receive feedback in those areas quarterly through the provider incentive plan. They also use this information to evaluate new service opportunities. For example, they established partnerships with hospital and academic partners to have on site optometrists 3 days a week exclusively to provide this service, leading to improvement in the measure.

While the analytics for the quality reports are done at aggregate level in a data warehouse using de-identified data, the Health Centers have ability to re-identify data at patient level. They have also used the reporting system to identify patients for specific interventions, eg, those at high risk of developing complications of influenza to target for outreach when flu vaccine becomes available or identify patients who have not met pap smear requirements. Population level analytics has also been developed to identify subpopulations more likely to require additional outreach.

Heartland International Health Center responded to poor compliance with colorectal cancer screening recommendations by creating a field “patient reason” for practitioners to document lack of adherence.

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A clinical effectiveness project was developed to test in intervention through which this response triggers an automatic referral to a trained community worker. Data show that of 200 patients past due for CRC screening, those randomized to receive the targeted outreach were 6 times as likely as a control group to subsequently be screened. This last example illustrates how the Alliance is planning to link community based comparative effectiveness research efforts to trends identified through quality measures.

3. **What is your opinion of how the traditional measure process needs to evolve to capture the robust clinical data of the EHR?**

The evolution from billing code based measures to clinical measures coming from an EMR opens the potential to greatly expand the scope of what is measured. While current measures focus largely on medical concepts, the CHC model and experience point to the importance of other important aspects of care: dental, nutrition, health education, mental health, social services. To truly drive improvements in preventive care and chronic diseases, incorporation of these dimensions and the intersection with medical care is essential. This means a continual evolution in standardization of terminology and data capture measures to include content and concepts relevant in these areas.

Documentation of reason for non adherence to guidelines has been an important direction for the Alliance. Working with the faculty practice at Northwestern who have been evaluating similar strategies, ability to document the reason for non adherence to a guideline – such as medical reason/exception, patient refusal, other patient factor or system issue – is being incorporated into documentation fields for many measures. Responding to these reasons it is target responses, eg, audit charts for medical exceptions to validate or identify need for practitioner education, provide targeted patient education/case management as in the Heartland example, or advocate for system change and/or develop new resources and programs. Documentation of exceptions as outlined above are important not only for appropriately targeting responses to data, but to maintain practitioner engagement by recognizing that compliance is multi-factorial.

Our experience has led us to two other considerations. First, quality measures are a degree of separation from practice recommendations within which they rest. Clinical decision support if linked

to the quality measure is therefore less rigorous than the care standard. This suggests that efforts to drive consensus in measures should evolve to consensus on measures themselves. Second, it is difficult to assign responsibility of quality measures at the individual practitioner level. It might be appropriate to develop measures which look at appropriate decision making within a particular visit to judge

individual practitioner performance, and reserve more global quality measures as evaluation of larger systems.

4. **What are some opportunities to advance measure development?**

As adoption of electronic health records increases, along with adherence to national standard for how data is collected and shared, there will be dramatic increases in availability of data which can be incorporated into quality measures. Our experience and mission suggest a few considerations:

- An underlying framework for quality should be used to frame goals and aim to balance the content and focus for the measures. The Alliance has embraced the Institute of Medicine principles which say that health care should be timely, efficient, effective, safe, equitable and patient centered. Adopting this framework would mean the quality and outcome measures should be mapped against these dimensions to assure that all are considered.
- Since health status and improvement depend upon multiple aspects of care, beyond mere medical services, quality measures should be expanded to incorporate all relevant modalities, such as nursing care, nutrition, behavioral health, social services and health education . In many cases this work will need to include defining data concepts and elements, as well as defining standards of care and outcomes against measures can be developed and/or driving national alignment of current local or organizational based measures and concepts.
- Patient engagement initiatives suggest that patient derived and/or focused measures could play an important role in promoting their more active participation in managing health. Development and implementation of patient quality measures can also decrease the risk of quality measures becoming a point of conflict between patients and practitioners in which responsibility is dually subrogated.
- There is opportunity to layer quality measures according to the level of the Health System at which they pertain and at which they are actionable: Practitioner level, practice level, system level and regional level. For example, practitioner level measures should relate to decision making and care that are relevant within that particular contact or context of care, such as whether a particular laboratory test or medication was ordered based upon available information and patient status. Higher level measures such as blood pressure or diabetes control are ultimately more related to system performance.
- As we are learning more about and promoting use of electronic systems for quality measurement, structural measures would have a useful role in driving and driving adoption. The Meaningful Use measures are examples of these at practitioner level related to HIT use, but there could be such measures

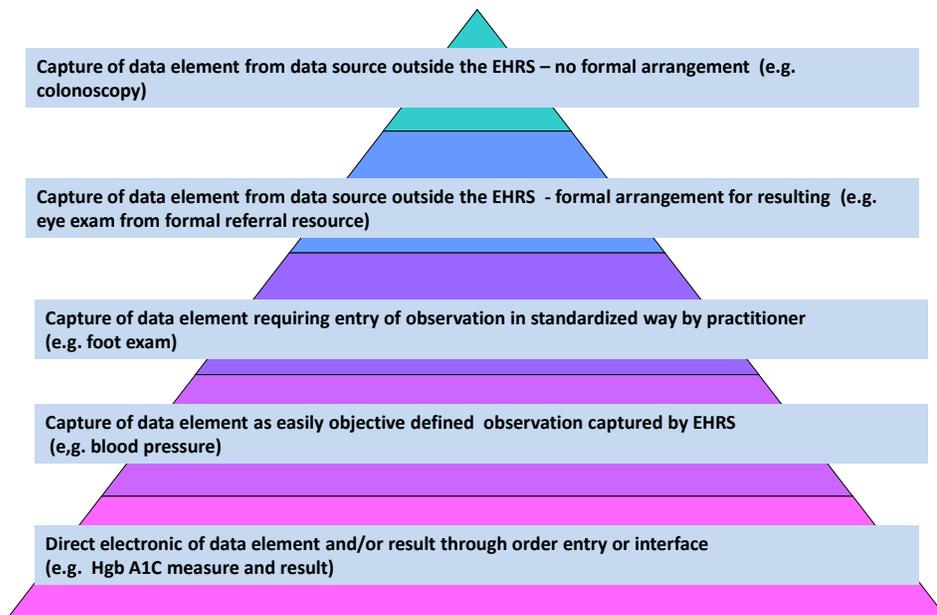
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relating to best care processes in other aspects of care delivery. Such measures would also be useful applied to other Health Care sectors such as health departments.

- Integration of clinical measures across initiatives and programs. Many programs such as Substance Abuse and Homeless programs have or are evolving performance and outcome measures. Coordination of these measures, as well as application of the discipline of data specification and standardization.

4. What are some barriers to developing electronic clinical quality measures?

Difficulty capturing data. Capture of data that populates the measures has varying degrees of complexity additional the technical capabilities of the EHR. The chart below illustrates a hierarchy of how data is collected by an EHR. The simplest measures at the bottom of the pyramid require no action on the provider of the care giver apart from the order. Moving up in complexity, data collection may require adherence to documentation procedures for recording an observation, import of data with correct mapping from outside the practice, through to need to gather and enter information outside of formal organizational relationships.



Understanding these complexities is important in interpreting quality reports, and may be measuring data capture more than true performance or outcomes.

Harmonization and Alignment. Unaligned measures with differing specifications significantly increase the burden on the end user. Ironically Safety Net organizations such as Community Health Centers are most

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at risk because they provide comprehensive services with multiple disciplines and offer a variety of programs funded through multiple sources which may have reporting requirements developed in isolation.

Data standards. Many content areas which are relevant to the kinds of care provided by CHCs and to new concepts of care such as Medical Home lack data standards. In some cases, such as Nursing, there may not yet be agreement or consensus on which standards to adopt. In still other cases, such as laboratory test ordering and result reporting, there may be lack of adherence to agreed upon standards.

State and local level program based measures, reporting systems and administrative structures.

State level health programs such as Medicaid and Substance Abuse programs have evolved specific and often isolated measures, reporting requirements and even data systems. The need to populate these systems can create duplication or isolation of efforts. In some cases, state regulations or policies restricting data such as HIV or substance abuse related status/services are actually at odds with goals for unifying health information around a client.

Level at which measures pertain. As outlined in the opportunities discussion measures may be collected which lie beyond the reporting entity's ability to impact. As the public becomes more focused on quality measures as transparent criteria for evaluating health care providers, it will be increasingly important to assure that accountability is appropriately aligned. In some cases, this may be difficult as solutions to Health outcomes are often complex and multi-factorial, and populations can be fluid. Furthermore, as in the case of CHCs, ability to impact quality may depend upon new resources and investments.

Change Management. Underlying the promotion of quality measurement and all of the technology practices required to implement are fundamental and profound changes in the function, purpose and "ownership" of health information and medical records, in the ways in which information is collected and applied in practice, and the degree of transparency. Against a backdrop of concomitant evolution of technology and reform of the Health System, these changes will prove stressful and perhaps threatening to many health care professionals, and perhaps to patients.

Ability to Respond. Building upon the comments above, it is critical to recognize that expanding the use and visibility of quality measures carries an expectation and responsibility to respond to results. For CHCs, knowing the problem, and even understanding approaches is useless in the absence of appropriate resources. In the larger context, objective quality measurement will underscore the need for realignment of resources, rethinking how services are valued and reimbursed, and other fundamental changes to the health care delivery system.