



Vision and Principles of a Quality Measurement Strategy for Primary Care (Position Paper)

Overview

The American Academy of Family Physicians' (AAFP's) *Vision and Principles of a Quality Measurement Strategy for Primary Care*

builds upon existing AAFP policy to provide guidance for future development and use of quality measures in improvement and payment initiatives.

Background

Improving health and health care is a continuous process and a shared goal of patients and all involved in the health care industry. The need for improvement in the United States is demonstrated by both high overall spending and poor rankings on many health indicators compared with other developed nations and some developing nations.¹ Measures are fundamental components of improvement. Measurement allows us to determine if practice changes, interventions, or new models of payment lead to actual improvements or if such changes merely placate those demanding change.

To date, quality measures have focused on the minutiae of hundreds of clinical processes for managing specific diseases and performing procedures but have failed to adequately address factors that have the greatest impact on overall individual and population health. The eagerness to measure has burdened physicians—especially primary care physicians—with the onerous task of capturing structured electronic data to feed an excessive number of measures, taken time away from patients, and led to loss of joy in practice. Quality measurement has become a high-burden, high-cost administrative exercise, focused on financial concerns with little benefit to patient care, population health, and cost reduction. Thirty-three percent of family physicians cited the lack of evidence that using performance measures results in better patient care as a major weakness of value-based payment systems, and an additional 29% cited this as a minor weakness.² The burden of measurement contributes to burnout among primary care teams, which in turn is associated with lower quality of care.³

Recent national initiatives have taken a closer look at quality measures. In late 2017, the Centers for Medicare & Medicaid Services (CMS) announced [Meaningful Measures](https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/MMF/General-info-Sub-Page.html) (<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/MMF/General-info-Sub-Page.html>), which calls for a focus

on core issues that are most vital to providing high-quality care and improving patient outcomes while reducing burden.⁴ The Core Quality Measures Collaborative, convened by America's Health Insurance Plans (AHIP), established core measures sets for several specialties, including primary care, as an important first step in harmonizing measures across payers.⁵ The National Academy of Medicine (NAM) Vital Signs developed a framework of core measures of health, care quality, costs, and engagement.⁶ In 2017, the Starfield III: Meaningful Measures for Primary Care summit assembled 70 national and international stakeholders with the goal of moving primary care measures beyond disease-specific measures to measures that address the unique features of primary care most responsible for better outcomes and lower costs.⁷ These efforts emphasize the need to re-examine our current approach to quality measurement; focus on issues that have a great impact on the nation's health; address what matters most to patients; and make better use of information technology (IT) to ease burden and drive rapid, breakthrough improvements in health care.

Existing AAFP policies address the following issues⁸⁻¹³:

- Primary purpose of measurement and criteria of performance measures: *Performance Measures Criteria* (<https://www.aafp.org/about/policies/all/performance-measures.html>) and *Pay-for-Performance* (<https://www.aafp.org/about/policies/all/pay-performance.html>)
- Burden of quality measures: *Principles for Administrative Simplification* (<https://www.aafp.org/about/policies/all/principles-adminsimplification.html>)
- Data sharing: *Data Stewardship* (<https://www.aafp.org/about/policies/all/data.html>)
- Functions of comprehensive primary care: *Medical Home* (<https://www.aafp.org/about/policies/all/medical-home.html>)
- Need to address social determinants of health (SDoH) to promote whole-person, comprehensive care: *Advancing Health Equity: Principles to Address the Social Determinants of Health in Alternative Payment Models* (<https://www.aafp.org/about/policies/all/socialdeterminants-paymentmodels.html>)

These policies provide a solid foundation for development of quality measurement within the confines of our current understanding of measurement and improvement science, using technology that is widely available now.

Vision of a Quality Measurement Strategy

This paper takes an additional step toward achieving a vision of a quality measurement strategy for primary care that has the potential to accelerate large-scale improvement in health, health care, and cost reduction. We distinguish between quality measures that are used for internal quality improvement (QI) efforts and those used for value-based payment and public reporting because the intended use determines the focus of measures and the rigor with which criteria of importance, measurability, and achievability (<https://www.aafp.org/about/policies/all/performance-measures.html>) are applied.⁸ We address the leadership role of physicians; the critical role patients and caregivers have in quality measurement and improvement; and the equalization of the partnership between patients/caregivers and clinicians, enabled by more actionable information and sophisticated primary care teams. We consider the importance of systems-level attribution and measurement, shared responsibility for outcomes, and community involvement in improvement efforts. We discuss the most important features of primary care that are responsible for improved outcomes and lower costs. Future efforts to develop measures for primary care

should be directed toward these areas. The vision of a quality measurement strategy for primary care is driven by the creation of large data stores and advancements in technology that change the fundamental process of measurement and improvement.

Principles of a Quality Measurement Strategy for Primary Care

The AAFP principles outlined below support achievement of the vision of a quality measurement strategy for primary care and establish the basis for such a strategy. These principles can be used to guide health care policy and advocacy, direct development of quality measures, impact value-based payment measurement efforts, and expand on work being done to inform improvement of health care quality.

Principle 1: Measures serve different purposes, and the AAFP makes a distinction between quality measures and performance measures.¹⁴ The main purpose of a quality measure is to accelerate internal clinical improvement. Performance measures serve several purposes: providing comparative data for use in value-based payment programs; supporting patients' ability to participate in and make decisions about health care based on cost and quality; and allocating resources toward identified community and population health needs. Some measures may serve the purposes of both quality and performance measures.

The intended purpose of a measure is important to its design and rigor. Quality measures address the details of patient care, administrative processes, and medical decision-making, and involve striving for attainment of benchmarks or goals. Performance measures address high-level patterns and outcomes of care, comparing various dimensions of quality and cost across organizations and geographic areas. Making this distinction allows the organization to use quality measures to track and explore innovative ways to improve the care of patients, even though such measures may include domains over which the health care organization or physician does not have ultimate control. Performance measures, on the other hand, require that the organization being measured have control over the dimensions involved.

The AAFP makes the following distinctions based on the purpose for which a measure is used:

Quality Measure: Quality measures are used within health care organizations to accelerate clinical improvement and are an integral component of QI methodology. They may be designed for application at various levels: individual, group, specialty, system, patient, or population. Quality measures need flexibility to accommodate changes in evidence and guidelines and can be less rigorous than performance measures because of their internal use. Disease-specific measures, process measures, measures that apply to only a small segment of the population, and measures that have face validity are useful for internal quality improvement.

Quality measures allow organizations to gain an understanding of care gaps and the impact interventions have on closing those gaps. Interventions drive purposeful change in organizational systems to improve the capability of health care professionals to properly care for their patients. Quality measures should be selected based on services offered, importance to patients and health care professionals, internal strategic plans, needs of the community being served, and perceived or identified gaps in care. Most existing quality measures are appropriate for use in QI.

Performance Measure: A performance measure compares the relative performance of various entities or health care professionals and is used for value-based payment, resource allocation, and patient decision-making. Performance measures should be evidence-based, consistent, universal, well-defined, and transparent. To avoid unintended consequences, they must meet the highest standards for validity, reliability, feasibility, importance, and risk adjustment.^{8,9} Performance measures may prompt internal improvement work.¹⁴

Performance measures used in value-based payment programs must be risk-adjusted, when appropriate, and allow for exceptions for individual patient circumstances, values, and needs. Performance measures should be limited to factors that have the greatest impact on health, health care, and costs, and are within reasonable control of the entities or professionals to which payment adjustments apply.

Many performance measures currently used in value-based payment fail to meet these standards.^{15,16} Measures may lack sufficient evidence linking them to improved health outcomes, the individuals or organizations held accountable may lack control over outcomes, or measures may apply to a small population, limiting their impact.

Performance measures also provide information that helps patients participate in and make informed decisions about their health care based on quality and cost. Measures that are publicly reported must be understandable, readily available when the public wants them, relevant to the service being sought, and inclusive of providers with whom the patient interacts, and they must address issues of importance to patients and reveal costs. Publicly reported measures should meet high standards for validity and reliability because measures that lack these characteristics may disengage clinicians from improvement, unjustly harm the finances and reputation of health care professionals, and misinform patients about the risks and benefits of various treatments.^{16,17}

Performance measures can identify gaps in services and outcomes at the entity, community, and population levels, and they can be used to direct allocation of public and private resources to address unmet needs. Such measures should not lead to financial penalties for low performance. Rather, they should lead to investment of resources to improve equity, access, and socioeconomic factors that impact health and health care.

Principle 2: To achieve the main purpose of accelerating improvement, quality measures must be integrated into a methodological approach. Internal quality improvement efforts require transparency and a safe space to allow honest assessment of care without fear of punishment and without pressure to increase revenue or produce bonus payments. Physicians must have a leadership role in QI efforts, with patients, clinical teams, and community partners as key players.

Implementing an organizational QI process can drive improvements in health and health care. Fundamentals of QI include continuous efforts, specific aims, buy-in from leadership, testing of changes, measurement, feedback, analysis of variation, and spread. QI examines processes and systems of care that may be underlying causes of poor outcomes. Physicians are involved in almost all important processes and outcomes of health care, and they must play a central role in improvement efforts.¹⁴

Candid discussions among care teams without fear of financial penalty or punishment, and data transparency are necessary for effective QI to occur. Physicians demonstrate a willingness to adopt best practices and share clinical insights when they are provided data and resources that indicate a need for

improvement. Patients are key players in improvement, particularly when patient activation is necessary for success, and can identify barriers that negatively affect their health or health care. Communities are also key players and can help offer potential solutions to non-medical barriers.

Principle 3: There should be a single set of performance measures that are universal, meet the highest standards of validity and reliability, and are derived from data extracted from multiple data sources. The measures should focus on outcomes that matter most to patients and that have the greatest overall impact on better health of the population, better health care, and lower costs. At the same time, the burden of measurement on practices should be minimized.

Performance measures used in value-based payment should include a limited set of measures of quality, cost, and population health. Giving in to the temptation to measure everything that can be measured drives up cost, adds to administrative burden, contributes to professional dissatisfaction and burnout, encourages siloed care, and undermines professional autonomy. In addition, it diverts resources away from the most important factors influencing health and health care, such as SDoH.¹⁸ Extensive experience with performance measures in various systems (e.g., the VA system, the United Kingdom: Quality and Outcomes Framework) has shown excessive measurement can cause unexpected harms while failing to have an enduring positive impact on health outcomes of interest.

To improve representativeness of the data and avoid “cherry-picking” of patients, the same measures should be standardized across payers, programs, and systems of care and universally applied to all eligible patients or populations. Measures currently used in various payment programs lack alignment and are applied inconsistently, which reduces their value and usefulness, limits the ability to aggregate data and determine progress toward a goal, and adds to the burden of data collection and reporting.¹⁶

Performance measures must be evidence-based and meet the highest standards of validity and reliability. Measures must allow exceptions for individual patient circumstances, values, and needs. Measures with insufficient exceptions may subordinate patients’ values to those of the measure proponents, which would distract from or devalue health care professionals’ efforts to help patients meet their goals. Poor measures of performance may lead to gaming, overtesting, underutilization, or overtreatment.

Measures of performance should be derived from data that are extracted from multiple data sources rather than self-reported by physicians and their teams. Self-reported data are seldom validated for accuracy, reliability, missing data, coding variation, and application of measure specifications. Elimination of self-reporting will end current financial penalties for non-reporting that disproportionately impact small practices. Data extraction will reduce administrative burden and resolve comparability problems in performance data submitted through various mechanisms, but it will require advancements in IT. However, physicians cannot be expected to continue bearing the burden of data collection and reporting while awaiting technological solutions.

Performance measures should focus on the highest strategic priorities, namely those conditions, services, and factors that are known to have the greatest impact on health status, outcomes, and cost. High-priority areas have been identified in several ongoing initiatives, including the Core Quality Measures Collaborative, Vital Signs (<https://nam.edu/vital-signs-initiative/>) from the NAM, and Meaningful Measures (<https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityInitiativesGenInfo/MMF/General-info-Sub-Page.html>) from CMS. Common themes that surfaced across these initiatives to inform the future focus of performance measures include the following⁴⁻⁶:

- Management of high-risk, high-need, high-cost patients
- Reduction in hospital and emergency department (ED) touches
- Prevention of chronic disease and promotion of healthy lifestyle
- Enhancement of communication and coordination between professionals, patients, and the community
- Socioeconomic factors and environmental health
- Patient and family engagement
- Emerging national health priorities
- Improved access to care
- Elimination of duplicative and low-value services to reduce unnecessary costs and patient harm

Principle 4: Performance measures should be applied at a system level to promote shared accountability and team-based care. To level the playing field, performance measures should be risk-adjusted, when appropriate, for demographics, diseases, severity of illness, and social determinants of health. All populations and geographic areas must be attributed to at least one system to promote health equity.

Performance measures should be applied at a system level of care, which may entail a group practice, integrated health care system, health plan, accountable care organization, or geographic region (e.g., community, state). Patient and population health are highly dependent on multiple stakeholders in multiple settings and on multiple teams working collaboratively to deliver coordinated, integrated services. They are also dependent on social, economic, and political factors that impact health. On their own, individual health care professionals have limited ability to drive outcomes in health and health care and are constrained by the environment and systems in which they practice. However, performance measurement frequently defaults to measuring care delivered by individuals, and shortcomings are misconstrued as professional inadequacies rather than as a reflection of the system. Feedback to systems should allow detailed dissection of data to help identify gaps in care and to stimulate future improvement efforts.

Performance measures used in value-based payment must be properly risk-adjusted, when appropriate, to account for factors such as demographics, comorbidities, patient behavior and preference, competing patient priorities, and SDoH to level the playing field and avoid financially penalizing entities or health care professionals for factors outside their control. Measures can be risk-stratified and/or populations can be segmented so that complex patients can be included in measures but the data can be analyzed by subpopulations. Exceptions and exclusions can be added to measure specifications to account for patient behavior, values, and choices and to avoid penalizing clinicians for delivering care according to patient-centered goals.

Accountability and attribution of patients and costs are difficult and complex issues, but simplicity emerges when these are done at a system level rather than at the individual clinician level.¹⁹

The most effective unit or system for performance measures will vary, and any single provider, facility, or patient might rightfully belong to multiple systems. For greatest impact, all populations and geographic areas must be attributed to one or more systems and all providers must be included in one or more systems, regardless of whether formal arrangements are in place. This is necessary to address issues of inequity, access, and cherry-picking, and would ensure that someone is responsible for the health, health care, and costs of all defined populations. Entities and health care professionals could find themselves in overlapping systems with a competitor, which would encourage cooperation and mutual resource

allocation to improve factors that influence health outcomes. Holding systems responsible for serving the needs of a geographic population may prevent the closure of clinics, EDs, maternity services, and other essential services in rural areas.

Principle 5: Measures of primary care should focus on the unique features that are most responsible for better outcomes and lower costs, and are under reasonable control of the primary care physician.

Fifty-one percent of all physician office visits are made to primary care physicians.²⁰ Research has shown that having strong primary care in a health care system reduces costs and improves quality and population health.²¹ There are unique features of primary care likely responsible for this effect that are largely under the control of the primary care physician. These features should be the focus of measures of primary care and include the following:

- **Access/first contact:** Primary care that is accessible to the patient as the first point of contact enhances a whole-person focus, reduces disparities, decreases ED and hospital visits, and lowers cost.
- **Comprehensiveness:** Comprehensive primary care that addresses acute problems, chronic disease, prevention, behavioral/mental health, population health, and SDoH leads to better health and fewer referrals/handoffs, which are known to cause safety concerns.
- **Coordination:** Care that is coordinated reduces duplication, oversights, and medication and other errors, and improves patient satisfaction.
- **Patient and caregiver engagement:** When patients and caregivers are presented with appropriate information, and their values and choices are considered, care is more patient-centered, patients are more satisfied and better able to manage their health, outcomes are improved, and costs are likely to be reduced.
- **Continuity:** Continuity builds relationships, understanding, and trust between physicians and patients; encourages patient activation and commitment to a care plan; reduces the risk of handoff errors; and is more considerate of the social and contextual needs of patients.
- **Care management:** Timely, effective care management of high-risk patients can reduce costs and improve quality for the small number of patients that account for a large percentage of health care expenditures.²¹

Current measures of primary care are scattered across all diseases, conditions, and preventive needs of patients; are generally indistinguishable from measures of other specialties; and do not adequately assess the quality of primary care. Primary care is much more complex than many people understand. Three out of four complaints that present are self-limited, and 40% of new symptoms do not lend themselves to any current coding system (e.g., ICPC, ICD-10).^{22,23} In addition, the linear "assembly line" model that has resulted in some advances (e.g., ventilator care) is not appropriate in primary care. Primary care requires a whole-person approach, prioritization of needs, a sophisticated primary care team, and consideration of the goals of the patient within the context of his or her social system.²⁴ Additional research is needed on how primary care is delivered and how to improve and measure care in the primary care setting.

Principle 6: There should be a principled redesign of health information technology that enables affordable, expansive, accessible aggregation of data, powerful analytics, and meaningful interpretation. Health IT should automate data collection and quality measurement, eliminating the

need to self-report. Information should be pushed to clinicians and patients at a point in time when it is most useful for decision-making and action.²⁵

Electronic health records (EHRs) were not designed to support quality measurement and improvement. A digital redesign of health IT is needed to enable extraction and aggregation of data from multiple sources, and analysis and interpretation of large data stores to reveal patterns of care; this is not possible with small, siloed data stores. Issues of data ownership, interoperability, and data exchange must be resolved to allow the flow of information across disparate health information networks

(<https://www.healthit.gov/topic/interoperability/trusted-exchange-framework-and-common-agreement>).²⁵ In the future, automated quality measurement will generate evidence from every patient encounter to reveal patterns, predict outcomes of various treatment options, inform new standards of care, and drive large-scale, rapid improvement. Data will prompt clinical decision support at the initial action point, informing quality as it happens. This will effectively move improvement away from reviewing measures and allow immediate action to close treatment gaps. Just-in-time information will equalize the partnership between clinicians and patients, empowering patients to knowledgeably participate in care decisions. Technology will connect patients and caregivers to social networks and community services that are equipped to address socioeconomic factors that impact health, strengthening the role that patients have in managing their own health. This continual learning, self-improving environment will change the face of quality measurement and improvement. (Refer to the family medicine *Vision for a Principled Redesign of Health Information Technology* (<https://doi.org/10.1370/afm.2079>) for a more detailed discussion of how IT will need to evolve to support health and health care.²⁶)

Technological capacity can already achieve much of this future state, but the high cost limits widescale adoption, especially by independent physicians. Benefits of investing in technology must outweigh the costs for a business environment, such as a physician office, in which financial viability can be threatened by drastic shifts in payment policies and practice costs. The disappointing experience with health IT to date and a lack of trust in “black box” algorithms have made it difficult for physicians to risk investment based on promises of improved efficiency, better care, and lower costs. Physicians have been expected to fill current technology gaps by expending their own time, effort, and resources for quality measurement and reporting, with little, if any, return on investment.

Affordable, advanced technology will alleviate administrative burden, siloed data, incomplete and non-representative data, and lack of timely, actionable feedback. Data extracted from claims, EHRs, surveys, labs, pharmacies, public health data, health assessments, administrative data, and other sources will allow computation of measures for virtually any aspect and segment of care. Data will increasingly be obtained directly from patients through various types of user-friendly technology that provide a rich source of outcomes data. The redesign of health IT will enable insights into care that are not yet possible with today’s information systems.

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