GOOD MEDICINE, BAD MEDICINE, AND THE WISDOM TO KNOW THE DIFFERENCE: EFFORTS TO MEASURE AND REPORT HEALTHCARE COST AND QUALITY UNDER MINNESOTA HEALTH REFORM LEGISLATION

Daryll C. Dykes, MD, JD, PhD*

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God grant me the serenity to accept
the things I cannot change,
courage to change the things I can,
and the wisdom to know the difference.¹

The first sentence of the Serenity Prayer is one of the most revered prayer passages of all time.² In fact, it has transcended exclusive religious relevancy to guide millions of people through myriad difficult and anxious times.³ Interestingly, the pleas for serenity, courage, and wisdom articulated in the prayer also bear a remarkable resemblance to the pleas of patients, providers, researchers, payers, and policymakers who have pursued quality and cost improvements in health care over the past several decades.

Disease, injury, disability, and death are inevitable conditions of humanity. However, recently unimaginable diagnostic and therapeutic tools provide new approaches to prevent, improve, or cure many of our ailments. On the other hand, modern medicine provides no answer for much of what plagues us. Moreover, some treatments, administered by some providers, work sometimes, for some patients, under some conditions, but not others. For instance, it used to be assumed, according to surgeon, author, and public health researcher Atul Gawande, that “differences among hospitals or doctors in a particular specialty were generally insignificant,” and a graph showing the results of all the centers treating any specific disease “would look something like a shark fin, with most places clustered around the very best outcomes.”⁴ However, recent studies indicate a bell-shaped curve, showing “a handful of teams with disturbingly poor outcomes for their patients, a handful with remarkably good results, and a great undistinguished middle.”⁵ So, how do we know the difference? How do we know which technologies, treatments, and providers really make a difference? And then,

² Id.
³ Id.
⁵ Id.
how do we know which differences really justify the associated risks, consequences, or costs of the care?

Sometimes the answers to these questions are obvious. More often, significant variations in preference, safety, efficacy, availability, and cost of care obscure our understanding of “best practices” in medicine and surgery. This is the realm of the health quality measurement—the medical, scientific, social, economic, political, and legal discipline of determining what’s good medicine, what’s bad medicine, and how to tell the difference. Quality reporting, in turn, aims to communicate the results of quality measurement to patients, providers, payers, and policymakers for use in making health care decisions. This essay summarizes the recognition of health care quality problems in America, the impetus for the quality measurement movement, and efforts to measure and report healthcare cost and quality under Minnesota’s health reform legislation.

I. IMPETUS FOR THE MEASUREMENT MOVEMENT

The last 50 years of the 20th century brought tremendous growth in health care knowledge and technologies. However, during the last decade of the century, strong evidence emerged to show serious quality problems in many of the world’s premier health systems. As summarized in a 1997 report regarding the British National Health Service, “[c]ollectively (and perhaps belatedly) we have recognized the most important issue facing the health service is not how it should be organized or financed, but whether the care it offers actually works.” Similar concerns percolating in the United States prompted the National Academy of Sciences’ Institute of Medicine (“IOM”) to convene the National Roundtable on Health Care Quality (“NRHCQ”) to study the issue. In a 1998 consensus paper published in the Journal of the American Medical Association, NRHCQ concluded that widespread underuse, overuse, or misuse of health resources plagued “small and large communities alike, in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care.” Moreover, NRHCQ concluded that improvements in healthcare quality would require “a

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6 David Weatherall et al., Science and Technology for Disease Control: Past, Present, and Future, in Disease Control Priorities in Developing Countries 119, 120 (D.T. Jamison et al. eds. 2d ed. 2006) (contrasting the comparatively slow progress in medical sciences during the first half of the twentieth century—postulated to be due to “the debilitating effect of two major world wars”—with the dramatic advancements in the biomedical sciences after World War II).


8 See National Roundtable on Health Care Quality, Statement on Quality of Care 5 (Molla S. Donaldson ed. 1998).

major, systematic effort to overhaul how we deliver health care services, educate and train clinicians, and assess and improve quality.”

Following the roundtable, IOM organized the Committee on the Quality of Health Care in America (“CQHCA”) and charged it with developing a strategy that would result in substantial improvement in the quality of health over the next ten years. Two years later, in a landmark report entitled, *To Err is Human: Building a Safer Health System*, CQHCA described “a serious concern in health care that, if discussed at all, is discussed only behind closed doors.” The concern, CQHCA concluded, was that due to medical errors (one component of the larger quality problem) tens of thousands of Americans die each year, and “hundreds of thousands suffer or barely escape from nonfatal injuries that a truly high-quality care system would largely prevent.” Notably, one of several recommendations put forth by the committee was the establishment of a nationwide mandatory reporting system to provide for the collection of standardized information by state governments about adverse events that result in death or serious harm.

The second and final CQHCA report followed in 2001. Following up on the disturbing revelations of the initial report, *Crossing the Quality Chasm: A New Health System for the 21st Century* addressed even more widespread quality problems which, “taken together, detract still further from the health, functioning, dignity, comfort, satisfaction, and resources of Americans.” Despite the rapid pace of advancements in medical science and technology, over 70 publications in leading peer-reviewed journals had documented serious quality shortcomings and significant variability in the performance of the health care system over the preceding decade.

“Between the health care that we have now and the health care that we could have,” the CQHCA concluded, “lies not just a gap, but a chasm.” Accordingly, the report was “a call for action to improve the American health care delivery system as a whole, in all its quality dimensions, for all Americans.” The CQHCA report specifically recommended that:

The health care system should make information available to

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10 *Id.*
12 COMMITTEE ON QUALITY OF HEALTH CARE IN AMERICA, INSTITUTE OF MEDICINE, *TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM* xi (Linda T. Kohn et al. eds., 2010).
14 *To Err is Human*, supra note 12, at 9.
15 *Crossing the Quality Chasm*, supra note 13, at ix–x.
16 *Crossing the Quality Chasm*, supra note 13, at 2.
17 *Crossing the Quality Chasm*, supra note 13, at 2–3.
18 *Crossing the Quality Chasm*, supra note 13, at 1.
19 *Crossing the Quality Chasm*, supra note 13, at 2.
patients and their families that allows them to make informed decisions when selecting a health plan, hospital, or clinical practice, or choosing among alternative treatments. This should include information describing the system’s performance on safety, evidence-based practice and patient satisfaction.  

II. MEASURING HEALTH CARE QUALITY

The science of health quality measurement is relatively young, highly complex, often controversial, and well beyond the scope of a law review article. However, a brief introduction to some of its fundamental concepts will facilitate an understanding of the legislative intent for including health quality measurement in health reform laws, and will aid in the reader’s interpretation of the resulting statutes, administrative rules, and policies in this area.

Just as rulers measure length and thermometers measure temperature, health care delivery “measures” are used to assess the performance of individual clinicians, clinical delivery teams, delivery organizations, or health insurance plans in the provision of care to their patients or enrollees. Given the IOM’s definition of health care quality as “the degree to which health care services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge,” quality measures are “mechanisms that enable the user to quantify the quality of a selected aspect of care by comparing it to an evidence-based criterion that specifies what is better quality.”

Early investigators classified health care quality measures as process measures, outcomes measures, or structural measures. More recently,
patient experience measures and composite measures have been included among the commonly used health performance measures—each assessing performance from a specific perspective.\footnote{See ABCs of Measurement, supra note 21, at 7.} Process measures assess whether care providers correctly adhere to processes proven to benefit patients.\footnote{ABCs of Measurement, supra note 21, at 6.} An example of a process measure is the assessment of the percentage of immunocompetent patients with community-acquired pneumonia who receive their first dose of antibiotics within 24 hours of arrival at a hospital, consistent with current guidelines.\footnote{See Pneumonia: percent of immunocompetent non-intensive care unit (ICU) patients with community-acquired pneumonia who receive an initial antibiotic regimen during the first 24 hours that is consistent with current guidelines, Nat’l Quality Measures Clearinghouse, http://www.qualitymeasures.ahrq.gov/content.aspx?id=46447&search=pneumonia (last visited Feb. 24, 2015).} Outcomes measures assess the actual outcomes of care rather than the particular steps taken in caring for patients.\footnote{ABCs of Measurement, supra note 21, at 7.} For example, assessment of the average change in patient functional status from initial to discharge visit among patients receiving outpatient rehabilitation services is an outcomes measure.\footnote{See Physical functional health status: average change in patient functional status from initial to discharge visit among patients receiving outpatient rehabilitation services, Nat’l Quality Measures Clearinghouse, http://www.qualitymeasures.ahrq.gov/content.aspx?id=28287 (last visited Feb. 24, 2015).} The Adoption of Medication e-Prescribing measure is a structural measure, which assesses the conditions in which providers care for patients. This measure documents whether a provider has adopted a qualified e-prescribing system and the extent to which it is used in the ambulatory setting.\footnote{Electronic prescribing system: percentage of eligible professionals who have adopted a qualified electronic prescribing (eRx) system, and at least one prescription created during the encounter was generated and transmitted electronically using a qualified eRx system, Nat’l Quality Measures Clearinghouse, http://www.qualitymeasures.ahrq.gov/popupsprintView.aspx?id=15717 (last visited Mar. 23, 2015).} Patient experience measures record patients’ perspectives on their care, such as with the Hospital Consumer Assessment of Healthcare Providers and Systems (“HCAHPS”) measure, which assesses patients’ perspectives on care they received in a hospital.\footnote{CAHPS Hospital Survey, Hospital Consumer Assessment of Healthcare Providers and Systems, http://www.hcahpsonline.org/home.aspx (last visited Mar. 23, 2015).} Finally, composite measures combine the results of multiple performance measures to provide a more comprehensive picture of quality care. The Optimal Diabetes Care measure, developed by MN Community Measurement and endorsed by the National Quality Forum, is a well-known example.\footnote{The National Quality Forum is a nonprofit organization established in 1999 that fosters agreement on national standards for measurement and public reporting of health care performance data. Funding, Nat’l Quality Forum, http://www.qualityforum.org/About_NQF/Funding.aspx (last visited Apr. 2, 2015). NQF uses a consensus development process to evaluate and endorse consensus standards, including quality measures, best practices, frameworks, and reporting guidelines. Consensus Dev’t Process,
a composite of five outcome and process measures used to assess the percentage of adult patients who have type one or type two diabetes with optimally managed modifiable risk factors.34

III. EARLY QUALITY MEASUREMENT AND REPORTING EFFORTS IN MINNESOTA: MN COMMUNITY MEASUREMENT

By the year 2000, three of Minnesota’s major health groups—HealthPartners Medical Group, Mayo Clinic, and Park Nicollet Health Services—had developed a seven-year history of collaboration and innovations in evidence-based medicine through the Institute for Clinical Systems Improvement (“ICSI”).35 Sponsored by HealthPartners Health Plan, ICSI brought medical organizations, health plans and business representatives into the health care decision-making process to help improve patient care in Minnesota.36 As an independent non-profit health care improvement organization, ICSI has since evolved and expanded its efforts, but its early successes also spawned the formal measurement and reporting of health care quality and cost in Minnesota.37

In addition to the existing ICSI quality improvement efforts, the medical directors of the member health plans believed they should also work together to create a single, combined report to compare patient care and outcomes statewide.38 Accordingly, the idea was born to publicly report medical group performance results to make them transparent, consistent with the recommendation of the CQHCA.39 Initially, the three health plans combined their data to study and report the results of diabetes care by medical group.40 By 2002, other health plans and medical group leaders joined in this effort and the Minnesota Council on Health Plans (“MCHP”) launched the Minnesota Community Measurement Project.41

By this time, many medical groups were collecting data from their medical records on diabetes and vascular care for their internal improvement


36 Id.


38 Our History, supra note 35.

39 Our History, supra note 35.

40 Our Story, supra note 37.

efforts. The newly formed Measurement Project agreed to test the use of these data for measurement and developed Direct Data Submission ("DDS")—a secure online portal to make it easier for medical groups to submit and use the data. Within two years of its launch, the project issued a series of three increasingly broad and transparent reports on optimal diabetes care. The first report was not fully transparent because medical groups could see how their performance compared with that of the other groups, but the other groups were not listed by name. However, in 2004, the collaborative released a report covering nine clinical topics and over 50 individual measures across 51 groups, with the results shared on a public website and with the media. Ultimately, in 2005, the Minnesota Council of Health Plans, in collaboration with the Minnesota Medical Association ("MMA"), and with support from the Minnesota Medical Group Management Association, ICSI, and employers throughout the state, formed MN Community Measurement ("MNCM") as an independent, collaborative, nonprofit organization under § 501(c)(3) of the Internal Revenue Code.

Over the next three years, MNCM expanded the scope and breadth of its activities and received national recognition as a leader in health transparency. Most notably, MNCM was selected as one of four recipients of a 2006 grant from the Robert Wood Johnson Foundation ("RWJF") to “develop and align three key drivers of quality improvement—measurement and public reporting, provider improvement and consumer engagement.” RWJF’s Aligning Forces for Quality: The Regional Market Project ("AF4Q") provided support to Detroit, Memphis, Minneapolis and Seattle in furtherance of the Foundation’s objective “to accelerate performance improvement on nationally adopted measures of outpatient chronic care quality through local market demonstrations.” Within one year, in addition to its core quality reporting efforts, MNCM led the nation with its 2007 Disparities Report, which compared primary care performance results for

42 Our Story, supra note 37.
43 Our Story, supra note 37.
44 Council Facts, supra note 41.
45 Council Facts, supra note 41.
48 Our Story, supra note 37.
50 Aligning Forces for Quality, supra note 49.
patients using state programs (such as Medicaid) to patients with commercial insurance on eight measures. The Minnesota collaborative received additional support from RWJF when the Foundation expanded the pilot program in 2008 to include ten additional communities and additional areas of focus, including “an explicit emphasis on improving care for patients from all racial and ethnic backgrounds.” By 2008, 85% of Minnesota’s primary care providers participated in voluntary data submission on twelve measures of health care quality included in MNCM’s milestone fifth anniversary report.

IV. THE 2008 MINNESOTA HEALTH REFORM LEGISLATION

To accelerate the path to optimum health and health care, recent state and federal health reform activities have espoused the so-called “Triple Aim”—a framework for “optimizing health system performance by simultaneously focusing on the health of a population, the experience of care for individuals within that population, and the per capita cost of providing that care.” According to the Institute for Healthcare Improvement (“IHI”), to achieve the Triple Aim, all in the system of care “need access to up-to-date medical knowledge, standardized definitions of quality and cost, and evidence and measurement collected and distributed by a thoroughly trustworthy body.” Through such information, patients, caregivers, payers, and policy makers can understand “the ‘state of the system’ with respect to


52 Aligning Forces for Quality, supra note 49. Ultimately, the program was expanded to sixteen communities and 2012 had demonstrated both significant progress and challenges for multi-stakeholder alliances focused on improving healthcare quality. See Jeffrey A. Alexander et al., Midterm Observations and Recommendations from the Evaluation of the Aligning Forces for Quality Demonstration Initiative 18 A. J. MANAGED CARE S126, S126 (2012). In 2013, RWJF extended funding of the AF4Q funding to MNCM through April 30, 2015. See also Aligning Forces for Quality, supra note 49.


its reliability, adherence to evidence, cost, and progress in improvement.\textsuperscript{56}

Although the federal government has implemented several health care quality measurement and reporting initiatives linked to voluntary participation in federal health care programs like Medicare and Medicaid,\textsuperscript{57} mandatory health care quality measurement and reporting in the United States has remained primarily within the province of state governments.\textsuperscript{58}

The Minnesota Medical Association offered qualified support for a broad measurement and reporting system in its 2005 proposal for health care reform, which stated:

In order to make more informed decisions and use their resources wisely, patients need to know what they are buying and what it costs. In order to improve the way they deliver care, physicians, hospitals, and other health professionals need to know how they are performing. This means all parties must commit to measuring and reporting on quality and cost. The reporting system, however, must capture relevant, appropriate, and valid performance information. There also must be an effort to streamline today’s redundant systems that often do not produce valuable data.\textsuperscript{59}

Consistent with this goal, on May 29, 2008, Governor Tim Pawlenty signed into law Minnesota’s comprehensive health reform package intended to fulfill the Triple Aim by laying the groundwork for improved quality and reduced costs of health care in the state.\textsuperscript{60} Codified at Minnesota Statutes Chapter 62U, the law focused on “new approaches to primary care, reducing the burden of chronic disease, establishing community standards for quality measures across the state.”\textsuperscript{61}

\textsuperscript{56} Id.


\textsuperscript{60} About Health Reform—History, MINNESOTA DEP’T OF HEALTH, http://www.health.state.mn.us/healthreform/about/history.html (last visited Feb. 27, 2015).

The law led to the formation of the Quality Incentive Payment System (“QIPS”)—a system of “pay-for-performance” incentives to health care providers, based upon achieving target levels of performance and improvement over time. The Commissioner of Minnesota Management and Budget was required to implement the QIPS for the State Employee Group Insurance Program, and the Commissioner of Human Services was required to implement the system for enrollees in state health care programs to the extent it is consistent with relevant state and federal statutes and rules. With respect to health care quality measurement and reporting, the Minnesota health reform law imposed an aggressive timeline for the development of enhanced market transparency, exchange of information, and consumer engagement through three specific initiatives: Provider Peer Grouping (“PPG”); the All Payer Claims Database (“APCD”) and the Statewide Quality Reporting and Measurement System (“SQRMS”).

V. THE EARLY PROVIDER PEER GROUPING EFFORTS

Among other initiatives, the Minnesota health reform law charged the state’s Commissioner of Health with developing a provider peer grouping (“PPG”) system. While existing state programs achieved significant savings by “tiering” providers on the basis of cost, many were concerned that focusing exclusively on cost would lead to unintended rewards for low cost, poor quality care, or penalties for providers who, for example, send their patients for appropriate and timely specialty care. Therefore, Provider Peer Grouping was conceived to allow the comparison of health care providers based on a combination of risk-adjusted cost and quality, for a provider’s

63 See MINN. DEP’T OF HEALTH, MINNESOTA STATEWIDE QUALITY REPORTING AND MEASUREMENT SYSTEM: QUALITY INCENTIVE PAYMENT SYSTEM 2 (2014), available at http://www.health.state.mn.us/healthreform/measurement/QIPSReportupdate2014FinalApril.pdf (“[QIPS] was envisioned by the Legislature as a uniform statewide pay-for-performance system whose existence would reduce the burden of health care providers associated with accommodating varying types and methodologies of pay-for-performance systems. Therefore, while the system was mandated for state health care purchasers[,] other health care purchasers in the state [were] encouraged to take advantage of the framework for their incentive payment initiatives. QIPS was initially released in January 2010 and was updated in March 2011, May 2012, May 2013[], and April 2014. The most recent update to the framework . . . includes thresholds for 2014 and 2015. . . . For 2014 and 2015, the incentive payment system includes 3 quality measures for physician clinics and 10 quality measures for hospitals.”).
64 MINN. STAT. ANN. §§ 62U.01–06 (West 2015).
65 MINN. STAT. ANN. § 62U.04 subd. 3 (West 2015).
total patient population as well as for select specific health conditions.  

These comparisons, in turn, would be used to develop provider payment incentives and would allow the state employee health plan, state public insurance programs, local units of government, and health plan companies to strengthen incentives for consumers to choose high-quality, low-cost health care providers.

Although efforts to compare health care providers on cost and quality were under way in several states, most initiatives at that time had focused on cost or quality transparency issues alone; none used a combined measure of cost and quality. For example, the Massachusetts MyHealthCare Options initiative published a public website that displayed hospital performance on cost and quality separately. On the federal level, although the Medicare Value-Based Purchasing Program considered “value” as a combination of cost and quality, it linked payments more directly to quality by ranking hospitals according to quality, and establishing different payment rates for different levels of quality. In an entirely different scheme, the Medicare Physician Group Practice Demonstration project separately awarded improvements in quality and cost efficiency.

Included in the law were specific guidelines for collection of the PPG data and disseminating the results of the grouping. For instance, by January 1, 2010, the Commissioner of Health was required to develop the grouping system in consultation and coordination with health care providers, health plan companies, state agencies, and organizations that work to improve health care quality in Minnesota. Beginning June 1, 2010, the commissioner was to disseminate information to providers on their cost of care, resource use, quality of care, and the results of the grouping developed under the system in comparison to an appropriate peer group. Providers would then be allowed 21 days to review the data for accuracy, and would be afforded an appeals process to resolve disputes from providers regarding the accuracy of the data used to develop analyses or reports. Beginning on September 1, 2010 and no less than annually thereafter, the commissioner

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68 Id.
72 2008 MINN. LAWS Ch. 358, art. 4, § 7, subd. 1.
73 2008 MINN. LAWS Ch. 358, art. 4, § 7, subd. 3(b).
74 2008 MINN. LAWS Ch. 358, art. 4, § 7, subd. 3(b)–(c).
was to publish risk-adjusted information on providers’ cost, quality, and the results of the peer grouping process.  

Consistent with its legal mandate, the Minnesota Department of Health convened a sixteen-member PPG Advisory Group composed of stakeholders representing health care providers, health plans, consumers, employers, state government and other key perspectives. The Advisory Group was charged with providing advice on how to appropriately structure the peer grouping methodology, including considerations of the following issues:

- What data sources, beyond those already specified in Minnesota Statutes, § 62U.04, are available to be used by the provider peer grouping system?
- What types of providers should be included? At what level of care delivery should peer grouping take place? How should peer groups be determined?
- How will care be properly attributed to the provider(s) primarily responsible for a patient’s care?
- What health conditions, medical services, and other dimensions of care should be included in the peer grouping system?
- How should information on resource use and unit prices be combined?
- How should information on cost and quality be combined into a composite measure?
- What method of risk adjustment is most appropriate for peer grouping purposes?
- How should episodes of care be constructed and compared?

The department convened a separate PPG Technical Panel composed of experts who could focus on the significant technical methodological considerations associated with comparing providers, and to provide options for the full Advisory Group’s consideration. The Advisory Group and Technical Panel met on an aggressive schedule between June and September 2009 and issued its final report on October 23, 2009. In the report, the PPG Advisory Group recommended 23 condition specific measures, 32 total care

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75 2008 MN. LAWS Ch. 358, art. 4, § 7, subd. 3(d).
77 Id.
78 Id. at 2.
measures for physician, and 56 total care measures for hospitals in the following six specific conditions for peer grouping in 2010: diabetes, coronary artery disease, pneumonia, asthma, congestive heart failure, and total knee replacement. These conditions were selected because they impact a cross section of patient and payer populations, have high prevalence rates, have high variability in cost among providers, address both chronic and acute conditions, and include a major hospital component or a major specialty physician component. The Advisory Group defined Total Care as “the representation of all covered medical services for all medical conditions incurred by a covered member over a defined period of time (usually one year)."

The Advisory Group also reviewed alternatives and made recommendations on the following core methodological issues as outlined in Minnesota Statutes § 62U.04: (1) Provider attribution of costs and quality; (2) Appropriate adjustment for outlier or catastrophic cases; (3) Appropriate risk adjustment to reflect differences in the demographics and health status across provider patient populations, using generally accepted and transparent risk adjustment methodologies; (4) Specific types of providers that should be included in the calculation; (5) Specific types of services that should be included in the calculation; (6) Appropriate adjustment for variation in payment rates; (7) Appropriate provider level for analysis; (8) Payer mix adjustments, including variation across providers in the percentage of revenue received from government programs; and (9) Other factors that the commissioner determines are needed to ensure validity and comparability of the analysis.

Notably, the Advisory Group had its greatest struggles discussing how cost and quality should be combined into a single value measure due to the majority of the members’ disagreement with the principle of the task. The Advisory Group offered recommended attributes for a methodology to translate value into a single score, but preferred displaying the components of value separately and letting users determine where value lays for them.

Finally, the Advisory Group encouraged the Commissioner and Legislature to support both provider peer grouping and the encounter and pricing database with time, staff, and funding resources because creation of the database, in particular, would “places Minnesota on the brink of a wealth of possibilities and insight to truly impact the health of its citizens.” Recognizing that it would take time and patience to allow the database to become populated with multiple years of data, to allow providers and payers to learn how to submit data more completely and consistently, and to allow

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80 Id.
81 Id.
82 Id.
83 Id. at 3–5.
84 Id. at 2.
85 PROVIDER PEER GROUPING RECOMMENDATIONS supra note 79, at 6.
VI. ALL PAYER CLAIMS DATABASE

Beginning July 1, 2009, as an effort to support Minnesota’s PPG initiative, Minnesota Statute 62U.04 subd. 4 and 5 required all health plans and third party administrators in the state to begin submitting de-identified claims data to a private entity under contract with the Minnesota Department of Health (“MDH”).

“Claims data” for Minnesota residents with health insurance includes all medical and health services insurance claims paid by a health plan company or third party administrator, including commercial products and managed care data for Medicaid and Medicare, Medicare fee for service data, and Medicaid and other state fee for service claims. To implement this requirement, MDH contracted with Onpoint Health Data (formerly known as the Maine Health Information Center) to design and implement the Minnesota Health Care Claims Reporting System (“MHCCRS”), also known as Minnesota’s All Payer Claims Database (“APCD”).

Minnesota Administrative Rules Chapter 4653 established the APCD and governs the definitions, data collection, data submission requirements, and individual variances pertaining to the APCD. The rule

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86 Id.
87 Minn. Stat. § 62U.04, subd. 4(a)(3) (authority to collect institutional, professional, and pharmacy claims data); § 62U.04, subd. 4(a)(2) (authority to collect identifiers for health care homes); § 62U.04, subd. 5 (authority to collect pricing data); § 62U.04, subd. 4(a) (authority to collect administrative data fields to ensure data integrity or to enhance the efficiency of data collection, which states that the data “shall be submitted in the form and manner specified by the commissioner.”). See also Minn. Dep’t of Health, Types of Authority and Description of Changes to Data Elements Chapter 4653, Appendices A–C, available at http://www.health.state.mn.us/healthreform/encounterdata/comments090522.pdf. The following types of health insurance policies or sources of coverage are excluded by Administrative Rule 4653.0100, subp. 11 (coverage excluded from the definition of a “health plan” under Minn. Stat. 62A.011 subd. 3): Hearing, dental, vision, or disability-only; auto medical or accident-only; Insurance supplemental to liability; long term care or workers compensation; Medicare supplemental and Medigap; Veterans Affairs, Indian Health Service, Tricare; carriers with less than $3 million in annual medical and/or $300,000 in annual pharmacy claims; non-Minnesota residents. Minn. Dep’t of Health, Minnesota’s All Payer Claims Database Frequently Asked Questions Data Submission and Data Quality 2 (2014), available at http://www.health.state.mn.us/healthreform/allpayer/dataqualityQA10814final.pdf.
89 See id. at 5.
also incorporates by reference “Minnesota Health Care Claims Reporting System: Appendices to Minnesota Administrative Rules, Chapter 4653,” issued by the Minnesota Department of Health in May 2009.

From its inception in 2009 to the end of 2012, the Minnesota APCD grew from 32 to 83 participating sources, approximately 73 million to 84 million claims, and approximately 4.1 million to 4.6 million unique plan members. Today, Minnesota’s APCD captures enrollment and claims data for approximately 85% of the state’s population and a greater share of those with health care coverage.

Records in the APCD include information about diagnoses, procedures, and duration of treatment, as well as de-identified demographic information . . . and high-level health plan product information. Information about prices paid for services is also included. The APCD does not include direct patient identifiers, such as social security number, name, or address.

The first statewide APCD system was established in Maine in 2003. As of November 2014, in addition to Maine and Minnesota, nine other states are collecting and releasing APCD data or reports, including Massachusetts, Tennessee, Utah, Colorado, Kansas, Maryland, Oregon, Vermont, and New Hampshire. Virginia, Connecticut, Rhode Island, and Arkansas are starting up APCDs, and fourteen more states have expressed strong interest in further exploring options to start an APCD or expand statewide from a regional project. Minnesota is one of just a few states with

92 ALL-PAYER CLAIMS DATABASE COUNCIL FREQUENTLY ASKED QUESTIONS, supra note 88 at 3.
93 Id. at 4–5. See also Memorandum of Beth Virmig to Katie Burns, Minnesota Dep’t of Health 1 (May 18, 2009) available at http://www.health.state.mn.us/health reform/encounterdata/certification090522.pdf (supplying information related to the de-identification of encounter data).
95 ALL-PAYER CLAIMS DATABASE COUNCIL FREQUENTLY ASKED QUESTIONS, supra note 88 at 1.
a truly “all payer” claims database, including data from Medicaid and Medicare as well as from commercial payers.98

VII. THE STATEWIDE QUALITY REPORTING AND MEASUREMENT SYSTEM

In order to create a uniform approach to quality measurement, enhanced market transparency, and, ultimately, improved health and reduced spending, § 62U.02 of Minnesota’s 2008 health reform law requires the Minnesota Department of Health (“MDH”) to establish a standard set of quality measures for health care providers across the state.99 Pursuant to this mandate, MDH developed the Minnesota Statewide Quality Reporting and Measurement System (“SQRMS”) to collect and report quality measurement data.100

Minnesota Rules Chapter 4654 governs the SQRMS.101 For the purposes of the SQRMS, health care providers include physician clinics, hospitals, and ambulatory surgical centers.102 Under the statute, since of January 1, 2010, health care providers must submit data on measures to be publicly reported, and health plans can no longer require providers to submit

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98 All-Payer Claims Database Council Frequently Asked Questions, supra note 88, at 1.
100 Health Care Quality Measures Adopted Rule, Minn. Dep’t of Health http://www.health.state.mn.us/healthreform/measurement/adoptedrule/ (last updated Jan. 15, 2015).
102 See also Minn. Stat. § 62J.03 subd. 8 (“Provider” or “health care provider” means a person or organization other than a nursing home that provides health care or medical care services within Minnesota for a fee and is eligible for reimbursement under the medical assistance program under chapter 256B. For purposes of this subdivision, “for a fee” includes traditional fee-for-service arrangements, capitation arrangements, and any other arrangement in which a provider receives compensation for providing health care services or has the authority to directly bill a group purchaser, health carrier, or individual for providing health care services. For purposes of this subdivision, “eligible for reimbursement under the medical assistance program” means that the provider’s services would be reimbursed by the medical assistance program if the services were provided to medical assistance enrollees and the provider sought reimbursement, or that the services would be eligible for reimbursement under medical assistance except that those services are characterized as experimental, cosmetic, or voluntary.). Minn. R. 4654.0200 subp. 13 further defines “physician clinic” as “any location where primary or specialty care ambulatory services are provided for a fee by one or more physicians in the state of Minnesota. Physician clinic includes ambulatory surgical centers and hospital-based outpatient locations that provide primary or specialty care ambulatory services for a fee. With the exception of ambulatory surgical centers, multiple clinic locations may be considered a single physician clinic when the multiple locations have common ownership and a majority of common clinical staff working across the multiple locations, and the total clinical staff across all locations is no greater than 20 full-time equivalent employees.” Minn. R. 4654.0200 subp. 13 (2015).
data on any measure outside the standardized set.103 The law also governs the parameters of quality measures used in Minnesota, where the term “quality measure” is legally defined as “a specific qualitative or quantitative indicator that measures health outcomes, processes, structures, or patient experience, access, or safety, or other desirable results for a defined population of patients.”104

With respect to individual patients, Minnesota’s legal definition of “quality measure” specifically excludes information “associated with assessing medical necessity,” “used to determine appropriateness of treatment,” or “related to patient safety or adverse health events.”105 The definition also excludes information “related to a health care provider’s qualifications or scope of practice,” and “necessary to detect and prevent fraud and abuse in the billing and payment of services.”106

Furthermore, quality measures used in Minnesota must be based on medical evidence, developed through a process in which health care providers participate, and reviewed on at least an annual basis.107 In addition, the measures must:

1. include uniform definitions, measures, and forms for submission of data, to the extent possible;
2. seek to avoid increasing the administrative burden on health care providers;
3. be initially based on existing quality indicators for physician and hospital services, which are measured and reported publicly by quality measurement organizations including, but not limited to, Minnesota Community Measurement and specialty societies;
4. place a priority on measures of health care outcomes rather than processes where possible; and
5. incorporate measures for primary care, including preventive services, coronary artery and heart disease, diabetes, asthma, depression, and other measures as determined by the commissioner.108

A. The State Partnership with MN Community Measurement

Following a competitive procurement process in the fall of 2008, MDH entered into contract with MN Community Measurement (“MNCM”)
to lead a consortium collecting data and assisting clinics in meeting the measure requirements.\textsuperscript{109} Also included in the consortium were the Minnesota Medical Association ("MMA"), Minnesota Hospital Association ("MHA"), Stratis Health, and the University of Minnesota, with whom MNCM subcontracts to assist with key activities.\textsuperscript{110}

Under this contract, MNCM:

(1) Facilitates data collection, validation and management of information collected from physician clinics and hospitals, including customer service support to assist clinics and hospitals with the data collection process.
(2) Develops and implements provider education about measures and the data collection process.
(3) Works with community stakeholders to review existing measures and develop new measures, including measure specifications.
(4) Develops recommendations annually of the uniform set of quality measures for the state’s consideration.
(5) Holds public meetings to present and obtain feedback on the recommended uniform set of measures.
(6) Manages implementation of a standardized statewide patient experience of care survey process.
(7) Submits both risk-adjusted and unadjusted final clinic-level results to MDH.
(8) Conducts data analyses.\textsuperscript{111}

In accordance with state statute and rules, MDH: (1) selects the measurement areas and measures for development by MNCM; (2) obtains input from the public during the rulemaking process; (3) annually promulgates rules defining the standardized set of measures; (4) publicly reports measures, and (5) develops vision for the further evolution of the SQRMS.\textsuperscript{112}

\textsuperscript{111} Statewide Programs, supra note 109.
In 2009, MNCM improved its longstanding website for better public access and launched MNHealthScores.org.113 From its initial offering of 33 reported measures for clinics and medical groups, the site has grown to report quality data on clinics, medical groups and hospitals across more than 70 measures.114 Using MNHealthScores.org, users “can find reliable, independently verified health care information, compare clinics and hospitals, and find providers close to home.”115 Furthermore, since the Minnesota Hospital Association partnered with MNCM to share their data on hospital performance, MNHealthScores.org also publishes the results of hospital measures based on Agency for Healthcare Research and Quality (“AHRQ”) recommendations.116

VIII. FIVE YEARS OF REFORMING THE REFORM LAW

As efforts were ramping up with the SQRMS and MNHealthScores.org, problems began to mount for the state’s Provider Peer Grouping efforts. Acknowledging that the original reporting dates in the 2008 legislation were “somewhat arbitrarily picked,”117 MDH was not ready to release PPG results by the early-2010 development and reporting deadlines. On May 14, 2010, Governor Tim Pawlenty signed legislation that bifurcated the development and reporting requirements.118 The amendment extended the deadline for MDH to disseminate total cost of care, resource use, quality of care and peer grouping results from June 1, 2010 to October 15, 2010, and the condition-specific cost of care, resource use, quality of care and grouping results from June 1, 2010 to January 1, 2011.119 Similarly, the public reporting deadlines were extended until January 1, 2011 for the total results and March 30, 2011 for the condition-specific results.120 The 2010 amendment also provided heightened scientific validity and reliability standards before peer grouping information could be disseminated to providers or published; 30 as opposed to 21 days for providers to initiate appeals; the prohibition against publishing a providers results during the pendency of an appeal; and the authority for the Commissioner of Health to further delay the dissemination of peer grouping results if additional time

114 Id.
118 2010 Minn. Laws Ch. 344 § 1 subd. 3(c)-(f).
119 2010 Minn. Laws Ch. 344 § 1 subd. 3(b)-(c).
120 2010 Minn. Laws Ch. 344 § 1 subd. 3(e)-(f).
was needed to establish the scientific validity and reliability of the results.\(^{121}\)

Finally, the amendment extended, from January 1, 2011 until 12 months after
the publication of the results, the time by which state divisions and health
plan companies would be required to use the results in selecting or marketing
health plans.\(^ {122}\)

Beginning in April 2010, the department convened a “Rapid
Response Team” (“RRT”) comprised of providers, purchasers and
consumers, to provide input on significant methodological issues that would
arise during implementation of PPG.\(^ {123}\) MDH also convened a multi-
stakeholder Reliability Workgroup that met in December 2010 and June
2011 to provide advice about how to consider reliability for the peer
grouping analysis and for MDH to convey information about reliability
related to specific methodological issues.\(^ {124}\) Based on the recommendations
of the PPG Advisory Group and input from the RRT, MDH issued decisions
regarding the tools for clinical level peer grouping;\(^ {125}\) quality composite
measure design;\(^ {126}\) risk adjustment of costs;\(^ {127}\) peer grouping for specific
conditions;\(^ {128}\) attribution of patients to providers;\(^ {129}\) and hospital peer
groups.\(^ {130}\)

In January 2011, acting on the authority granted in the 2010
amendment, MDH further extended the PPG timelines so that total care
reports for would be released to hospitals by June 15, 2011, with public

\(^{121}\) 2010 Minn. Laws Ch. 344 § 1 subd. 3(b),(d),(g).

\(^{122}\) 2010 Minn. Laws Ch. 344 § 1 subd. 9(a).

\(^{123}\) Provider Peer Grouping Rapid Response Team (RRT), MINN. DEP’T OF
HEALTH, available at http://www.health.state.mn.us/healthreform/peer/rrt/index.html (The
RRT was composed of ten members representing six stakeholders: Minnesota Medical
Association, Minnesota Hospital Association, Council of Health Plans, Minnesota Business
Partnership, AARP and Minnesota Department of Human Services) (last visited Feb. 27,
2015).

\(^{124}\) Provider Peer Grouping—Reliability Working Group, MINN. DEP’T OF
(last visited Feb. 27, 2015).

\(^{125}\) Memorandum from Katie Burns to Rapid Response Team 2 (Sept. 9, 2011),

\(^{126}\) Memorandum from Katie Burns, Health Economics Program, to Rapid
Response Team Members 3 (May 23, 2011), available at http://www.health.state.mn.us

\(^{127}\) Memorandum from Katie Burns, Health Economics Program, to Rapid

\(^{128}\) Memorandum from Katie Burns, Health Economics Program, to Provider Peer
Rapid Response Team Members 1 (May 24, 2010), available at http://www.health
.state.mn.us/healthreform/peer/rrt/Decision_SpecificConditions.pdf.

\(^{129}\) Memorandum from Katie Burns, Health Economics Program, to Rapid
Response Team Members 1 (Sept. 9, 2010), available at http://www.health.state.mn.
us/healthreform/peer/rrt/Decision_Attribution.pdf.

\(^{130}\) Memorandum from Katie Burns, Health Economics Program, to Rapid
us/healthreform/peer/rrt/Decision_HospitalPeerGroups.pdf
reporting to occur beginning September 15, 2011; total care reports for clinics would be released to clinics by August 15, 2011, with public reporting to occur beginning November 15, 2011; and condition-specific reports would be released to hospitals and clinics by September 15, 2011, with public reporting to occur beginning December 15, 2011.131

Although PPG remained a topic of discussion at the state capitol, only minor changes to the law passed the legislature during 2011.132 However, fueled by the efforts of influential health care lobbies—including the Minnesota Medical Association, the Minnesota Hospital Association, and medical privacy advocates—the PPG law was once again the subject of substantive legislative amendments during 2012. This time, in addition to further modification of deadlines and the appeals process,133 the amendments imposed new mandates for case mix adjustments to providers’ cost and quality results,134 dissemination of data to providers,135 and standards for dissemination and publication of the results to the public.136 Most significantly, the 2012 amendments required MDH to establish “an advisory committee comprised of representatives of health care providers, health plan companies, consumers, state agencies, employers, academic researchers, and organizations that work to improve health care quality in Minnesota.”137 The advisory committee was required to meet no fewer than three times per year, and the commissioner was required to consult with the advisory committee in further developing and administering the PPG system.138 Finally, where previous versions of the law mandated processes for publication of PPG results and their use by state agencies and health plan companies, the 2012 amendments made these processes discretionary.139

The 2012–2013 legislative session brought no further changes for the beleaguered PPG law, and during April 2014, MDH distributed PPG reports to hospitals.140 However, the scientific and practical challenges of delivering the PPG results, combined with political opposition by key stakeholders,
ultimately trumped the program’s ambitious goals.\textsuperscript{141} Backed once again by a strong lobby from the Minnesota Medical Association, the Minnesota Hospital Association, and the Minnesota Council of Health Plans, legislators reconsidered several provisions of the program during the 2014 session. The outcome was an amendment, signed into law by Governor Mark Dayton on April 29, 2014, immediately and indefinitely suspending all further development and implementation of the PPG system.\textsuperscript{142}

Additionally, while the APCD was originally intended to support the PPG initiative, the 2014 legislature recognized the importance of using the APCD as a tool to address other key questions to inform health care delivery system reform.\textsuperscript{143} The 2014 legislation authorized MDH to perform relevant analyses about variation of cost, quality, utilization and disease burden, in addition to using the data for certain evaluation activities, and directed MDH to create a workgroup to develop recommendations for a framework that could govern potential future uses of the data.\textsuperscript{144} MDH appointed 16 members to this workgroup “to also consider questions concerning privacy and security, access to the data, potential acceptable uses of the data by outside organizations, funding and sustainability of the APCD, among other requirements in state law.”\textsuperscript{145} The workgroup had six meetings between July and December 2014 and issued a final report to the Minnesota Legislature in January 2015.\textsuperscript{146} The workgroup’s report includes a broad range of recommendations including recommendations for future public use of the APCD data; a future public/private advisory group to advise MDH on the structure, allowable uses, and access to the data; technical issues; future APCD quality reports; and future MDH reports to the legislature following authorized expanded uses.\textsuperscript{147}

\textsuperscript{141} Id. at 11–12. See also MMA Testifies on Provider Peer Grouping, DIGITAL
testifies-on-provider-peer-grouping-22394. In the author’s experience as a member of the PPG Advisory Group and the Minnesota Medical Association, providers were primarily concerned about the validity the PPG results. Also, there was recognition that MNCM was soon to report the Total Cost of Care (“TCOC”) measure, which was considered more practical since TCOC does not combine cost and quality, or merge payer types.

\textsuperscript{142} 2014 Minn. Laws Ch. 172 § 2.

\textsuperscript{143} Health Reform: Minnesota’s All Payer Claims Database (APCD), MINN. DEP’T OF HEALTH, http://www.health.state.mn.us/healthreform/allpayer/ (last visited Feb. 27, 2015).

\textsuperscript{144} 2014 Minn. Laws Ch. 178 § 4.

\textsuperscript{145} Health Reform, supra note 143.


\textsuperscript{147} Id. at 6.
IX. PROGRESS IN MEASUREMENT AND REPORTING

Between 2008 and 2011, MNHealthScores.org grew to report results on 76 measures and shared data on over 315 medical groups and 672 sites of care.148 MNCM released its milestone 10th annual report in December 2013 with quality indicators segmented into three categories (1) “Care That is Proven to Work;” (2) “Care That is Responsive to Patients’ Needs and Preferences;” and (3) “Care That Does Not Cause Harm,” aligned with the IOM’s Six Aims for Improvement, developed in 2001—achieving a health care system that is safe, effective, patient-centered, timely, efficient and equitable.149 For the most recent report, MNCM expanded the Direct Data Submission process to include additional clinical measures such as Optimal Vascular Care, Depression Remission at 6 and 12 Months, Optimal Asthma Care, and Colorectal Cancer Screening.150 The report revealed improvements in several measures, including Optimal Asthma Care for Children and Adults; Follow-Up Care for Children Prescribed ADHD Medication; Depression Remission at Six Months; Depression Response at Twelve Months; Appropriate Treatment for Adult Bronchitis; and Colorectal Cancer Screening.151 Additionally, characterized as “Care That Protects Patients from Medical Errors and Does Not Cause Harm,” the 2013 report included results of the Health Information Technology (“HIT”) survey, hospital quality measures, and statewide results on the performance of ambulatory surgical centers.152 Finally, by the time of MNCM’s release of the seventh iteration of the its Health Care Disparities Report in 2013, the report allowed the comparison of patient groups at the clinic level and by race and ethnicity.153

Perhaps most significantly, MNCM recently published the nation’s first Total Cost of Care data for medical groups.154 Total Cost of Care is a National Quality Forum (“NQF”)-endorsed methodology, which includes all costs associated with treating commercially insured patients, including professional, facility inpatient and outpatient, pharmacy, lab, radiology, behavioral health and ancillary costs.155 This report includes data based on more than $8 billion in 2013 risk-adjusted and outlier-limited costs for patients covered by the four health plans in Minnesota with the largest

148 Statewide Programs, supra note 109.
149 See CROSSING THE QUALITY CHASM, supra note 13, at 2–3.
151 Id. at 97, 115, 143, 167.
152 Id. at 5.
153 Id. at 225, 284.
155 Id.
commercially-insured populations: Blue Cross and Blue Shield of Minnesota, HealthPartners, Medica and PreferredOne.156 The Total Cost of Care report is expected to complement the quality and patient experience reports from MNHealthScores.org allow to drive value improvements and to give consumers “a sense of which clinics are higher and lower cost, which they can use to make provider choices or ask their clinic about why they’re more expensive.”157

X. CONCLUSION

“Measurement is the first step that leads to control and eventually to improvement. If you can’t measure something, you can’t understand it. If you can’t understand it, you can’t control it. If you can’t control it, you can’t improve it.”158 Such is the dilemma of health care quality improvement. As the IOM concluded two decades ago:

[W]e cannot lose sight of the urgent need to monitor and improve the quality of health and the effectiveness of healthcare with in our society. . . . Maintaining and indeed enhancing the quality of care is a central element in reform of our health care system—quality can and must be measured, monitored, and improved. Policymakers, whether in the public or the private sector at local, state, or federal levels, must insist that the tools for measuring and improving quality be applied. These approaches require constant modification and reassessment—that is, the continual development of new strategies and the refinement of old ones. Furthermore, credible objective, and nonpolitical surveillance and reporting of quality in health and health care must be explicitly articulated and vigorously applied as change takes place.159

Although the mission has yet to be accomplished, thanks to the foresight and perseverance of visionaries in the community, a strong partnership among health plans, generous support from philanthropic organizations like the Robert Wood Johnson Foundation, and pioneering legislative and administrative actions, the mission has been advanced. As demonstrated by the demise of Provider Peer Grouping and the successes of

156 Id.
157 Id.
158 H. James Harrington, quoted in DONALD LIGHTER, BASICS OF HEALTH CARE PERFORMANCE AND IMPROVEMENTS ch. 3 (2013) (H. James Harrington has held the position of Chairman of the Board of Emergence Technology, Ltd.).
MNCM’s collaborative efforts, community and provider input, buy-in and support is critically important if health reform measures are to be sustained. These collaborations have positioned Minnesota as a national leader in the standardized measurement and public reporting of health care cost and quality, facilitating the differentiation of good medicine and bad medicine in Minnesota, and providing a powerful new decision making and quality improvement tool for health care consumers, providers, payers, administrators, and regulators in the state.