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# EXAMINING THE EVIDENCE

In this *Health Watch* issue we premiere a new regular column: “**Health Watch Examining the Evidence.**” The authors are Tia Goss Sawhney and Bruce Pyenson. The authors share an interest in health research and evaluation and routinely troll actuarial, public health and clinical literature. Their intent is to help us critically examine the evidence supporting common assumptions within the actuarial or the larger health care community and to think deeper about health care issues. They will provide copious endnotes for our continued learning and, sometimes, their personal thought-invoking opinions. They, and *Health Watch*, welcome your feedback.

## Enhanced Primary Care Leads to Reduced Hospital Use and Saves Costs—Or Does It?

By Tia Goss Sawhney and Bruce Pyenson

Government policymakers and many others consider the increased use of primary care to be essential to achieving health care’s triple aim<sup>1</sup> of improving the patient experience of care, improving the health of populations, and reducing the per capita cost of care. Many recent health policy initiatives are consistent with this strategy, such as the Centers for Medicare & Medicaid Services (CMS) “Comprehensive Primary Care Initiative,”<sup>2</sup> which involves Medicare, commercial payers and Medicaid, and the provisions of the Affordable Care Act (ACA) that increase primary care reimbursement for Medicaid.<sup>3</sup> Barbara Starfield of Johns Hopkins, one of the giants in the study of the value of primary care, shows that evidence for the value of primary care has been accumulating for decades.<sup>4</sup>

Today’s primary care differs from the solo-practitioner, community doctor of decades past. Patient-centered medical homes (PCMHs)<sup>5</sup> and health homes<sup>6</sup> are recent, widely promoted concepts, built on earlier primary care case management (PCCM)<sup>7</sup> programs, all of which build on the HMO primary care “gatekeeper” of the 1980s. PCMHs are said to be the “cornerstone” for emerging Medicare, Medicaid and commercial accountable care organizations (ACOs).<sup>8,9</sup> PCMHs, health homes and

ACOs made their health system debuts in 2006 to 2010 and are still rapidly evolving. Commercial payers, who until the implementation of ACA were often not required to pay anything for asymptomatic health screening exams, now must pay the full cost of such procedures,<sup>10</sup> and primary care “quality” metrics set expectations for the delivery of health screening exams and testing.<sup>11</sup> Compared to the past, today’s primary care has less focus on acute illness and more on prevention, screening, and care for chronic conditions.

Consumers and payers are asking a lot of today’s primary care providers. Primary care providers should be located in close proximity to the patient’s home, culturally sensitive and ideally multilingual, available for emergent needs around the clock, and able to provide an appointment in days, if not hours. They should provide a comprehensive range of public health and medical services in a personalized, “patient-centered” fashion: health risk assessment, counseling and screening for patients without any apparent medical conditions; initial evaluation and treatment of emergent conditions; routine management of many chronic conditions; the development and maintenance of comprehensive care plans; and the coordination of the multispecialty care and care transitions of the most complex patients.<sup>12</sup> They



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should employ a team approach, with nurses, care coordinators, social workers and community health workers on-site or readily available who integrate behavioral and physical health. Within the Medicaid and Medicare realms, the teams may also be tasked with addressing the social and economic determinants of health, including social isolation and food and housing instability. We will refer to these expectations as “enhanced primary care.”

Many assume that the extra cost of enhanced primary care will be paid back through decreased use of hospital, specialist and other care. The assumption seems to be the “reverse balloon theory.” The balloon theory says that constraining medical spending in one area will result in more spending elsewhere—pushing the balloon in one spot creates a bulge in another. The belief seems to be that more services in primary care will automatically reduce other services. While we are enthusiasts for Starfield’s work, enhanced primary care is a new concept and there are a plethora of PCMH models; the evidence that has emerged so far has been mixed and the positive evidence is often weak.

Recent evidence is summarized by the Patient-Centered Primary Care Collaborative in “The Patient-Centered Medical Home’s Impact on Cost & Quality: An Annual Update of the Evidence, 2012-2013,” published in January 2014.<sup>13</sup> The collaborative is committed to promoting the success of PCMHs, yet the evidence it presents is still mixed. Other recent research includes a 2014 *Journal of the American Medical Association (JAMA)* article reviewing the multipayer experience of National Committee for Quality Assurance (NCQA) medical homes in southeast Pennsylvania. Comparing the results to non-medical home practices the JAMA study found limited improvements in quality and no association with reductions in utilization of hospital, emergency department or ambulatory care services or total costs over three years.<sup>14</sup> Another 2014 article proclaims “Total Cost of Care Lower among Medicare Fee-For-Service Beneficiaries Receiving Care from Patient-Centered Medical Homes.”<sup>15</sup> The abstract is also positive. However, beyond the abstract, the results are quite mixed, including no explanation as to how costs are lower

while hospital admissions including case mix are not different.

Even mixed results may not be as good as they seem. Positive research results should always be considered with some skepticism. System change sponsors, providers and researchers are more likely to submit positive results for publication than negative results. Of course, human psychology clouds interpretation: negative results may be due to bad luck, lack of data, or too short of an evaluation period, but positive results are the result of good methods and programs. Publication bias is real.<sup>16</sup>

And within complex systems, it can be very challenging to disentangle the impact of a single change from the impact of all the other changes and ongoing forces. For example, recently a highly favorable analysis of the impact of Illinois Medicaid’s Primary Care Case Management (PCCM) program appeared in the *Annals of Family Medicine*.<sup>17</sup> While the PCCM program has improved access, enhanced primary care relationships, and gotten more money to underpaid primary care providers, Illinois Medicaid staff (including an author of this article) attributed the favorable outcomes to other causes. They feel that much of the low trend in Illinois Medicaid costs was likely due to the state’s fixed (non-trending) fee schedule rather than PCCM.

Enhanced primary care might not yield the hoped-for reduction in hospital care and savings for some of the following reasons:

**Generalizability**

- What worked in a small demonstration project for a targeted population or motivated care providers is not necessarily generalizable to large populations and large systems of providers.<sup>18</sup>

**More Is More**

- Care begets care. Every patient encounter presents opportunities for more tests, more drugs, more referrals, and more care in general—whether or not that care is necessary.<sup>19</sup> For example, the patient who can quickly and easily get access to a doctor for a common

cold will too often get an antibiotic prescription. More access to an inefficient system will produce a bigger inefficient system.

- Patients who already have their health under control and have little room for improvement may be big consumers of the enhanced primary care services, in part because they are more willing to engage.
- The evidence for some screening exams and testing is weak and may not consider cost as a factor.<sup>20</sup>

#### **It's Hard, Very Hard**

- We are still avoiding “no.” Telling a patient or a provider that care is unnecessary and may even be harmful is difficult.
- Health status and risk are linked to patient behavior, and behavior is extremely hard to change, probably more so among the socially and educationally disadvantaged.

#### **Incentives May Not Be Aligned or Sufficient**

- Provider incentives are complex and paid long after the delivery of care. Social learning theory teaches us the importance of clear expectations and immediate reward (or consequences) for eliciting behavior change. Yet today's health care incentives are often based on indices of dozens of elaborate metrics and paid long after care is delivered.<sup>21</sup>
- Attempts to be fair can backfire. For example, risk-adjusted provider contracting attempts to recognize that some physicians have more complex patients than others. But it can mean that providers receive more money by affixing more diagnoses to a patient—a simple incentive for providers to understand and operationalize.
- Quality metrics are focused on the masses rather than the relatively few patients who are most at risk of high costs. Meeting these quality metrics can increase costs. For example, many of the Medicare ACO's “Patient/Care Giver Experience” and “Preventive Health” quality of care measures could well increase costs.<sup>22</sup>

#### **Savings Perspective**

- Cost savings may not be realized for many years and accrue to a different payer, but the required care may increase short-term costs.
- Quality of life or length of life may improve rather than cost.

#### **Wrong Venue**

- Population health is more dependent on public health than clinical care. The root cause of much disease lies not in the presence or absence of primary care, but in our societies and education.<sup>23</sup> The medical neighborhood concept is promising because it connects with public health and referral issues.<sup>24</sup>

These obstacles may explain why the emerging evidence around enhanced primary care suggests a tenuous causal connection among the triple aim's goals—improving the patient experience of care, improving the health of populations, and reducing the per capita cost of care.<sup>25</sup>

Finally, it is worth noting the health care systems are complex and challenging worldwide. The following quote is from an article in the *Bulletin of the World Health Organization*<sup>26</sup> discussing health system reform in developing countries, particularly Africa:

*Performance-based financing (PBF) is an intervention that is gaining significant momentum as a solution to poor performance.... Results indicate that PBF can ... have positive effects on health service utilization. The increasing use of PBF and its perceived benefits is now leading proponents to promote it as a strategy to address structural problems and to introduce more generalized health system reform.... We believe that the current optimism for such a strategy is unsubstantiated and underestimates important constraints to its implementation. It also risks falling into the trap of seeking a “magic bullet” solution to improve complex social systems.*

There are many reasons to support primary care. However, we suggest that enhanced primary care, like PBF, isn't a magic bullet and won't dramatically improve a complex and often dysfunctional U.S. health system. ■

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## ENDNOTES

- <sup>1</sup> Institute for Health Improvement: <http://www.ihl.org/Engage/Initiatives/TripleAim>.
- <sup>2</sup> <http://innovation.cms.gov/initiatives/comprehensive-primary-care-initiative/>.
- <sup>3</sup> <http://www.medicaid.gov/affordablecareact/provisions/provider-payments.html>.
- <sup>4</sup> Starfield, B., L. Shi and J. Macinko. Contribution of Primary Care to Health Systems and Health. *Milbank Quarterly*, 83.3 2005: [http://www.commonwealthfund.org/usr\\_doc/Starfield\\_Milbank.pdf](http://www.commonwealthfund.org/usr_doc/Starfield_Milbank.pdf).
- <sup>5</sup> According to the National Committee for Quality Assurance (NCQA): "The patient-centered medical home is a way of organizing primary care that emphasizes care coordination and communication to transform primary care into 'what patients want it to be.' Medical homes can lead to higher quality and lower costs, and can improve patients' and providers' experience of care." The NCQA started recognizing (accrediting) PCMHs in 2008: <http://www.ncqa.org/Programs/Recognition/Practices/PatientCenteredMedicalHomePCMH.aspx>.
- <sup>6</sup> "The Affordable Care Act of 2010 created an optional Medicaid State Plan benefit for states to establish Health Homes to coordinate care for people with Medicaid who have chronic conditions. CMS expects states health home providers to operate under a 'whole-person' philosophy. Health Homes providers will integrate and coordinate all primary, acute, behavioral health, and long-term services and supports to treat the whole person." <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Supports/Integrating-Care/Health-Homes/Health-Homes.html>.
- <sup>7</sup> "Primary care case management (PCCM) is a system of managed care used by state Medicaid agencies in which a primary care provider is responsible for approving and monitoring the care of enrolled Medicaid beneficiaries, typically for a small monthly case management fee in addition to fee-for-service reimbursement for treatment. States began enrolling beneficiaries in their PCCM programs by the mid-1980s to increase access and reduce inappropriate emergency room and other high cost care. State use of PCCM grew steadily during the 1990s" (and beyond): <http://aspe.hhs.gov/health/reports/pccm/index.htm>.
- <sup>8</sup> The reference to PCMHs as the cornerstone of ACOs appears in the Standards and Guidelines for NCQA's Patient-Centered Medical Home (PCMH) 2014, available by free download from [www.ncqa.org](http://www.ncqa.org). The relationship between PCMHs and ACOs is well described at: <http://www.accountablecarefacts.org/topten/what-is-the-difference-between-a-medical-home-and-an-aco-1>.
- <sup>9</sup> ACOs first emerged in the 2006 to 2009 period and were formalized within the ACA of 2010 as a pilot method for generating Medicare cost savings. ACO and ACO-like organizations now partner with Medicare, Medicaid and commercial insurance plans: [https://www.nahu.org/legislative/containing\\_costs/ACOWhitePaper.pdf](https://www.nahu.org/legislative/containing_costs/ACOWhitePaper.pdf); <http://pcmh.ahrq.gov/page/foundational-articles>; <http://www.pcpcc.org/content/history-0>.
- <sup>10</sup> An ACA qualified health plan requirement: <https://www.healthcare.gov/what-are-my-preventive-care-benefits/adults>.
- <sup>11</sup> Examples include the eight Medicare ACO preventative and screening measures: <http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharesavingsprogram/Downloads/ACO-NarrativeMeasures-Specs.pdf> and the four Medicaid "adult core" screening measures: <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Quality-of-Care/Downloads/Medicaid-Adult-Core-Set-Manual.pdf>.
- <sup>12</sup> Patient-Centered Primary Care Collaborative: <http://www.pcpcc.org/about/medical-home> and Agency for Healthcare Research and Quality (AHRQ): <http://www.pcmh.ahrq.gov/page/defining-pcmh>.
- <sup>13</sup> Nielsen, M., J.N. Olayiwola, P. Grundy, et al. The Patient-Centered Medical Home's Impact on Cost & Quality: An Annual Update of the Evidence, 2012-2013. January 2014: [http://www.milbank.org/uploads/documents/reports/Patient-Centered\\_Medical\\_Homes\\_Impact\\_on\\_Cost\\_and\\_Quality.pdf](http://www.milbank.org/uploads/documents/reports/Patient-Centered_Medical_Homes_Impact_on_Cost_and_Quality.pdf).

- <sup>14</sup> Friedberg, M.W., E.C. Schneider, M.B. Rosenthal, et al. Association Between Participation in a Multipayer Medical Home Intervention and Changes in Quality, Utilization, and Costs of Care. *Journal of the American Medical Association*. 2014; 311(8): 815-825. doi:10.1001/jama.2014.353.
- <sup>15</sup> Van Hasselt, M., N. McCall, V. Keyes, et al. Total Cost of Care Lower among Medicare Fee-for-Service Beneficiaries Receiving Care from Patient-Centered Medical Homes, Health Services Research. Article first published online: 30 JUL 2014. DOI: 10.1111/1475-6773.12217.
- <sup>16</sup> Ionnidis, J.P.A. Why Most Published Research Findings Are False. *PLoS Medicine*, August 2005.
- <sup>17</sup> Phillips, R.L., M. Han, S.M. Petterson, L.A. Makaroff, et al. Cost, Utilization, and Quality of Care: An Evaluation of Illinois' Medicaid Primary Care Case Management Program. *Annals of Family Medicine*, September/October 2014, vol. 12, no. 5: 408-417. Doi: 10.1370/afm.1690: <http://www.annfammed.org/content/12/5/408.abstract>.
- <sup>18</sup> Schwenk, T.L., editorial: The Patient-Centered Medical Home: One Size Does Not Fit All. *Journal of the American Medical Association*. 2014; 311(8): 802-803. doi:10.1001/jama.2014.352.
- <sup>19</sup> See Kaestner, R., and A.T.L. Sasso. Does Seeing the Doctor More Often Keep You Out of the Hospital? *Journal of Health Economics* (2014), <http://dx.doi.org/10.1016/j.jhealeco.2014.08.003>, for a discussion and analysis of care begetting care.
- <sup>20</sup> For example, see this excellent discussion in the *Canadian Medical Association Journal* of the value of depression screening: <http://www.cmaj.ca/content/184/4/413.short>; then see, via the links above, that depression screening is a quality metric for Medicare and Medicaid.
- <sup>21</sup> Bandura, A. Social Learning Theory. General Learning Corporation. 1971: [http://www.esludwig.com/uploads/2/6/1/0/26105457/bandura\\_sociallearningtheory.pdf](http://www.esludwig.com/uploads/2/6/1/0/26105457/bandura_sociallearningtheory.pdf).
- <sup>22</sup> [http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharesavingsprogram/Quality\\_Measures\\_Standards.html](http://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/sharesavingsprogram/Quality_Measures_Standards.html).
- <sup>23</sup> Frieden, T.R. A Framework for Public Health Action: The Health Impact Pyramid. *American Journal of Public Health*. 2010 April; 100(4): 590-595. doi: 10.2105/AJPH.2009.185652: [http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/#\\_\\_ffn\\_sectitle](http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2836340/#__ffn_sectitle).
- <sup>24</sup> <https://www.pcpcc.org/content/medical-neighborhood>.
- <sup>25</sup> Pyenson, B., and K. Fitch. The Need to Reduce Unnecessary Care. *Health Affairs*, March 2013: <http://content.healthaffairs.org/content/32/3/631.full>.
- <sup>26</sup> Ireland, M., E. Paul and B. Dujardi. Can Performance-Based Financing Be Used to Reform Health Systems in Developing Countries? *Bulletin of the World Health Organization*. Sept. 1, 2011, 89(9): 695-698. Doi: 10.2471/BLT.11.087379: <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3165979/>.