

POLICY BRIEF

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DELIVERY SYSTEM REDESIGN

The US health care delivery system is expensive, fragmented, highly decentralized, and poorly organized. The system fails too often to deliver high quality care that is accessible, safe, efficient, and effective for all.ⁱ While models of integrated care delivery that emphasize coordination and service integration exist, they are not the operating norm. Delivery system reform efforts to date have focused on engineering within the provider setting and have been insufficient to meet the changing health needs of an increasingly complex population. Delivery system re-design requires system-wide reform. The enactment of the Patient Protection and Affordable Care Act (PPACA), signed into law on March 23, 2010 provides the impetus to redesign the delivery system, significantly altering the way that care is organized and delivered. Through delivery system redesign, it is possible to move away from a delivery system that is outdated, provider-centric, and uncoordinated towards a system that is patient-centered, clinically integrated, accountable, and maximizes value for consumers. This shift will not be easy. Transformation of the delivery system toward a patient-centered model of care will require simultaneous action on multiple fronts including increased coordination and service integration along the continuum of care, activated consumers engaged in clinical decision making, and technical systems capable of providing the clinical linkages necessary to guide evidence-based decision making.

PROBLEM STATEMENT - FRAGMENTED DELIVERY SYSTEM

The US health care delivery system is made up of a fragmented network of public and private financing, health care delivery, and quality assurance structures. There is no single national entity or set of policies guiding the health care system. States divide their responsibilities among multiple agencies, and providers who practice in the same community and care for the same patients often work independently from one another.ⁱⁱ The US health system is the most expensive system in the world and yet health outcomes and quality are no better and often worse than in most developed nations.ⁱⁱⁱ Evidence of fragmentation in the delivery system includes poor communication amongst providers, a lack of accountability for patients across providers, and deficiencies in clinical information systems that result in misuse of resources and medical errors. A *New England Journal of Medicine* article by Jencks et al. estimated that one-fifth of the nearly twelve million Medicare beneficiaries discharged from a hospital were rehospitalized within 30 days, with only 10% of those rehospitalizations being planned.^{iv} An Institute of Medicine report by Aspden et al. estimated that each year there are approximately 1.5 million avoidable injuries resulting from medication errors.^v Medical errors and avoidable patient injuries are the product of communication break downs and technical inefficiency.

Health information technology (HIT) has been heralded as a potential tool to address delivery system fragmentation along the continuum of care and the subsequent quality and patient-safety



problems that ensue. Unprecedented federal dollars are being invested in modernizing the HIT infrastructure of the nation, including incentive payments to providers for adopting Electronic Health Records (EHRs) and the funding of demonstrations and pilot programs on the application of HIT in the care delivery setting. Although financial investments in HIT are an important mechanism for modernizing the nation's outdated health information system and decreasing clinical fragmentation, it alone does not ensure system integration and improved quality along the continuum of care. The challenge in redesigning the delivery system to successfully utilize HIT to drive improvements in clinical performance lies in implementing and utilizing HIT systems that enable providers to integrate HIT into redesigned practice patterns and improved care patterns.

LACK OF CARE COORDINATION

Underlying the foundation of the delivery system's poor performance is a lack of care coordination across the continuum of care. The complex structure of the existing delivery system acts as a barrier to accessing care and support services for patients with increasingly complex health needs who would benefit most from greater coordination and communication across the spectrum of providers. Although everyone is susceptible to poor care coordination and communication across the spectrum of providers, the elderly and the chronically ill are especially vulnerable. Advances in health care, technology, and public health have extended the life expectancy of the US population. These advances have enabled individuals to live longer with more complex health needs and increased likelihood of developing a chronic condition. In addition, an increasingly sedentary lifestyle coupled with poor health habits and behaviors have exacerbated the growing problem of the chronic disease burden.^{vi} Specifically:

- The number of people aged 65 and older in the US is projected to increase from 12.5% of the population in 2006 to nearly 20% of the population in 2030, with the most significant growth occurring in the population aged 85 and over.^{vii}
- Approximately 80% of the older population suffers from at least one chronic condition — generally defined as an illness that is persistent and imposes physical limitations — and 50% suffer from two or more chronic conditions.
- The number of obese adults in the US has increased 5% since 1997, with nearly 33% of adults being obese and almost 20% of youth aged 6-19 being obese.^{viii}
- Chronic disease is the leading cause of death and disability in the US and accounts for an estimated 75% of the nation's \$2 trillion health care price tag.^{ix}

Shifting age demographics coupled with increased prevalence of chronic disease threaten to break an already fragile and inefficient delivery system. The US delivery system lacks a single entry point to link systems of health care, social services, education, public health services, and home services for patients and their families. Most patients, but particularly those with chronic conditions, have multiple providers located in different offices and settings. The disconnect between providers and locations often results in poor access to patient information, medical histories, and treatment plans; limited or no communication between providers; and a disjointed and often discouraging patient experience. Care coordination may be part of the solution to the problems caused by system fragmentation. Greater care coordination would allow providers timely access to pertinent patient and treatment information, which has the potential to improve quality of care and reduce medical errors.

Enhancements in care coordination are intended to not only improve care and optimize health, but also to promote independence and reduce unnecessary service utilization in that a more coordinated system can link patients and their families to a range of resources and services that

can strengthen a patient's ability to self-manage their care and conditions.^x The PPACA lays the foundation for improving care coordination by bolstering community supports and services, creating a voluntary social insurance program for long-term care, and creating incentives for service integration; but it remains unclear how these provisions will be implemented and whether or not they will successfully address the multiple components of care coordination.

SUMMARY OF HEALTH CARE LEGISLATION

The PPACA contains a number of provisions designed to improve the quality and delivery of health care goods and services for all Americans. Underlying the foundation of delivery system redesign concepts is an injection of federal dollars to modernize the nation's health information technology infrastructure. These investments began with the passage of the American Recovery and Reinvestment Act (ARRA) of 2009 and the Health Information Technology for Economic and Clinical Health (HITECH) provisions. These provisions contained an estimated \$30 billion in incentive payments for demonstrating meaningful use (defined as using HIT to track key clinical conditions, communicate that information for care coordination purposes, and initiate the reporting of clinical quality measures and public health information) and other quality-related applications of HIT (including \$250 million dollars to 17 communities (Beacon Communities) to serve as pilot communities for wide-scale use of HIT as a quality improvement mechanism, and \$267 million dollars to develop HIT regional extension centers in local communities.)^{xi}

Key provisions of the PPACA provide support to states and communities to experiment with alternative delivery system models that hold promise for improving quality and lowering cost, address the changing health needs of the population, and promote improved health and well-being of the elderly through phased-in changes to Medicare and increased options for long-term care and community living. Key provisions are summarized below.

Delivery System Redesign^{xii}:

- Encourages the development of new patient care models
 - Establishes a national program for Accountable Care Organizations (ACOs) based on a shared savings model for ACOs that can improve quality and lower costs in Medicare
 - Creates a payment incentive program for hospitals and community-based organizations to improve care transitions for Medicare beneficiaries at high risk of rehospitalization
 - Creates a new state option for chronically ill Medicaid beneficiaries to designate a provider as their medical home
 - Creates new demonstration projects that allow safety-net providers and pediatric medical group providers to experiment with the adoption of capitated, global payments and ACOs
 - Creates an independent, non-profit Patient-Centered Outcomes Research Institute
 - Establishes a new Innovation Center to develop and test new patient-centered care models in Medicare, Medicaid, and CHIP
 - Establishes a new program to implement medication therapy management (MTM) services provided by licensed pharmacists as part of a collaborative approach to the treatment of chronic diseases
- Strengthens the Quality Infrastructure
 - Requires the Secretary of HHS to establish, for the first time, a national strategy to

- improve health care quality
- Creates funding opportunities to develop additional quality measures

Increased Access and Decreased System Fragmentation for the Elderly.^{xiii}

- Updates the Medicare Program to Increase Access and Improve Care
 - Provides coverage with no co-pay or deductible, for an annual wellness visit and personalized prevention plan services effective January 1, 2011
 - Gradually closes portions of the Part D doughnut hole, beginning in 2011, while requiring drug manufacturers to provide a 50% discount to Part D beneficiaries during the interim
 - Eliminates Part D cost-sharing for dual eligibles receiving care under a home and community-based waiver
 - Requires information disclosure and accountability for skilled nursing facilities, nursing facilities, and other long-term care facilities
- Bolsters Supportive Services Delivered at Home and in the Community
 - Establishes the Community Living and Assisted Services Support (CLASS) Plan a public, long-term care program that, through voluntary deductions or contributions, contributes to the purchase of community living assistance service and supports for individuals with functional limitations
 - Establishes a Medicaid State Plan Option to provide community-based attendant services and supports benefit to those who meet the state's nursing facility clinical eligibility standards
 - Protects recipients of Home and Community Based Services (HCBS) by requiring states to apply spousal impoverishment rules to beneficiaries who receive HCBS for a five-year period beginning January 1, 2014

Primary Care and Prevention to Combat Chronic Disease.^{xiv}

- Expands Capacity of the Public Health System to More Effectively Intervene to Treat and Manage Chronic Disease
 - Establishes a public health investment fund to sustain and expand public health prevention programs
 - Authorizes the Secretary of HHS to convene a national public-private partnership to launch a national prevention and health promotion campaign
 - Establishes a wellness demonstration to assess the impact of a program that provides at-risk populations who utilize community health centers with a risk-factor assessment and individualized wellness plan to reduce risk factors for preventable conditions
- Increases Access to Clinical Preventive Services and Expands Incentives to Encourage Primary Care and Prevention
 - Provides coverage under Medicare, with no co-payment or deductible, for an annual wellness visit and personalized prevention plan services
 - Authorizes a grant program for the operation and development of school-based health clinics
 - Increases the federal medical assistance percentage(FMAP) to states that expand access to preventive services for Medicaid-eligible adults
 - Establishes a grant program in Medicaid that provides incentives for healthy lifestyle initiatives to prevent chronic disease
 - Makes community transformation grants available to promote individual and community health and prevent the incidence of chronic disease

The PPACA loosely stipulates the parameters of delivery system redesign, but the nuts and bolts of implementing reforms will largely be carried out at the community and local levels. It remains

unclear what effect the implementation of these reforms will have on populations and health systems at the state and local level.

LOOKING TOWARDS THE FUTURE

With landmark legislation already signed into law, the challenge moving forward is in implementing delivery system reforms at the local level that maximize the system's potential for delivering safe, effective, patient-centered, timely, efficient, and equitable care.^{xv} This requires delivery system alignment across all levels of the care continuum. Looking ahead, the following areas are likely to become more salient as implementation unfolds:

- *Demonstrating meaningful use.* Successfully leveraging the potential of HIT to lay the foundation for delivery system reform will depend on a) defining 'meaningful use' criteria in a way that is actionable for providers and b) developing and implementing interoperable HIT systems that can then be meaningfully used at the local level of a provider practice or hospital^{xvi}. It is currently uncertain whether providers will be able to meet Phase I measures of meaningful use criteria by 2011 or the more comprehensive Phase II measures by 2015. Furthermore, it is unclear how EHRs will impact provider practice.
- *Resources and capacity at the local level.* It is unclear how already financially-strapped states will respond or be able to support delivery system reforms that may require some injection of state funds. Examples include expanding the Patient-Centered Medical Home in the adult Medicaid population, extending the Money Follows the Person Demonstration project for long-term care supports and services, and collecting and reporting additional data to better measure and track quality.
- *Training and professional development for the health care workforce.* Transitioning from an episodic, acute model of care delivery towards prevention and population management will require provider buy-in, HIT alignment with provider needs, and training and professional development on how to manage a population. The foundations of prevention, including a strong primary care workforce and the metrics necessary to track, measure, and monitor population and community health, are currently insufficient to meet the increase in demand that delivery system redesign necessitates.
- *The composition and distribution of the health care workforce.* Seamless transitioning and coordination at all levels of care will likely require an increased but more focused role for care managers. Additionally, increased emphasis on prevention, wellness, and community-based supports will require defining new roles for health care workers. It is unclear if the present supply and training of the existing workforce is sufficient to meet an increase in demand.
- *Patient and Community Level Readiness for Reform.* Local readiness for healthy communities and the promotion of prevention and wellness to combat chronic disease will vary and will require extensive community outreach, education, and planning in order to successfully combat the problem.

SOME OPPORTUNITIES TO LEVERAGE FEDERAL INVESTMENTS

- Launch local marketing campaigns to increase awareness and visibility of the provisions of PPACA that have an immediate impact on local communities;
- Track and monitor the progress of provider experiences with EHRs and compliance with meaningful use criteria and their subsequent impact on cost and quality over time;
- Consider taking affirmative steps to help small provider organizations form local/regional strategic partnerships;
- Evaluate the readiness of the stakeholder community (providers, state and local public health agencies, consumer groups) to begin implementing PPACA provisions;
- Support implementation and evaluation studies of specific components of delivery

- system reform and their impact on patient populations (for example the elderly, dual eligibles, public health insurance beneficiaries, the chronically ill) and communities;
- Support the development and testing of data tools and systems that improve patient self-management (among the most important, those that help educate patients on appropriate use of medications); and
- Act as an informal and formal convener of local stakeholders and community groups to develop sustainable multi-stakeholder partnerships.

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The Schneider Institutes is based at Brandeis University. It is chaired by Professor Stanley Wallack, and directed by Christopher Tompkins. The Schneider Institutes are objective, university-based entities that provide research assistance to the Federal government on the major problems it faces in financing and delivering care to the elderly, disabled and poor. Its role is to solve complex health care problems, and to link research studies to policy change. The Schneider Institutes have become one of the largest academically based health policy research centers in the United States.
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ⁱ Committee on Quality of Health Care in America, *Crossing the Quality Chasm: A New Health System for the 21st Century* (Washington D.C.: National Academy Press, 2001).

ⁱⁱ A. Shih et al. "Organizing the U.S. Healthcare Delivery System for High Performance." The Commonwealth Fund, 2008.

ⁱⁱⁱ C. Peterson and R. Burton, "U.S. Health Care Spending: Comparison with Other OECD Countries," ed. Domestic Social Policy Division (Washington D.C.: Congressional Research Service, 2007).

^{iv} S. Jencks, M. Williams, and E. Coleman, "Rehospitalizations among Patients in the Medicare Fee-for-Service Program," *New England Journal of Medicine* 360, no. 14 (2009).

^v P. Aspden et al., eds., *Preventing Medication Errors* (Washington D.C.: National Academies Press, 2007).

^{vi} I., Ahluwalia, A. Mack, W. Murphy, A. Mokdad, and V. Bales. 2003. "State-Specific Prevalence of Selected Chronic Disease-Related Characteristics --- Behavioral Risk Factor Surveillance System, 2001." *Morbidity and Mortality Weekly Report: Surveillance Summaries* 52(ss08): pp.1-80. Chowdhury, P., L. Balluz, M. Town, F. Chowdhury, W. Bartoli, W. Garvin, H. Akcin, K. Greenlund, and W. Giles. 2010. "Surveillance of Certain Health Behaviors and Conditions Among States and Selected Local Areas --- Behavioral Risk Factor Surveillance System, United States, 2007." *Morbidity and Mortality Weekly Report (MMWR)* 59(ss01): pp.1-220.

^{vii} W. Leutz, *Healthy Aging in the Commonwealth: Pathways to Lifelong Wellness*, (Waltham: Brandeis University--Heller School for Social Policy and Management, 2009).

^{viii} Chronic Disease Prevention and Health Promotion. Center for Disease Control and Prevention. <http://www.cdc.gov/chronicdisease/overview/index.htm>. (accessed June 24, 2010).

^{ix} Ibid.

^x R. Mollica and Jennifer Gillespie. "Care Coordination for People with Chronic Conditions". Partnership for Solutions: Johns Hopkins University. Accessed July 9, 2010 from http://www.partnershipforsolutions.org/DMS/files/Care_coordination.pdf. Committee on Children with Disabilities. "Care Coordination: Integrating Health and Related Systems of Care for Children With Special Health Care Needs". *Pediatrics*, Vol. 104, No. 4, 1999.

^{xi} HITECH Programs. US Department of Health and Human Services. http://healthit.hhs.gov/portal/server.pt?open=512&objID=1487&parentname=CommunityPage&parentid=28&mode=2&in_hi_userid=10741&cached=true. (accessed June 24, 2010). Centers for Medicare and Medicaid Services. Fact Sheets: CMS Proposes Definition of Meaningful Use Of Certified Electronic Health

Records (EHR) Technology. <http://www.cms.gov/apps/media/press/factsheet.asp?Counter=3564> (accessed July 8, 2010).

^{xii} Democratic Policy Committee. The Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act <http://dpc.senate.gov/healthreformbill/healthbill96.pdf>. (accessed 2010).

^{xiii} L. Shugarman and G. Alkema, A Summary of the Patient Protection and Affordable Care Act (P.L. 111-148) and Modifications by the Health Care and Education Reconciliation Act of 2010 (H.R. 4872), (Long Beach: The SCAN Foundation, 2010).

^{xiv} Ibid.

^{xv} Committee on Quality of Health Care in America, Crossing the Quality Chasm: A New Health System for the 21st Century (Washington D.C.: National Academy Press, 2001).

^{xvi} American Medical Association. 2010. "AMA Comments on CMS Proposed Rule on Meaningful Use of EHR" [accessed on 2010]. Available at: <http://www.ama-assn.org/ama/pub/news/news/meaningful-use-ehr.shtml>.