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How will Public Health and Primary Care Come Together in Massachusetts?

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Master of Science in Public Affairs Capstone Project
University of Massachusetts Boston

Submitted to

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May 21, 2014

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Abstract

The Patient Protection and Affordable Care Act aims to place public health and prevention practice closer to the clinical care delivery system by mandating basic preventive services and creating a national prevention plan. The Massachusetts health care system has a number of elements that can help foster closer linking of public health practices in the primary care setting. This research set out to examine whether the current healthcare system in Massachusetts will enable public health and primary care integration as intimated upon by the Affordable Care Act. This study will assess the current connection between public health and primary care practice in Massachusetts and identify factors affecting further linkages with the aim of predicting the degree to which the Affordable Care Act will serve to better connect public health and primary care. Data for this study originate from expert interviews from health care institutions and organizations. Interviews questions focused on assembling findings related to the role of ACA in integration, how close Massachusetts is to integration, those characteristic enabling or inhibiting integration, and policy changes that need to happen to further foster integration.

I. Introduction and Context

The Patient Protection and Affordable Care Act of 2010 (ACA) has the promise of reducing the United States' medically uninsured population by 30 million people (Academy Health, 2011). The Affordable Care Act mandates the purchase of health insurance coverage, expands Medicaid, and bans health coverage caps and coverage exclusions for pre-existing conditions. These sets of reforms are geared towards broadening access to primary care so that more individuals will have the opportunity to be treated for disease and illness. ACA also addresses disease and illness prevention by mandating preventive care treatments under basic insurance coverage provisions. In addition ACA restructures public health funding and establishes new national bodies to define and direct public health standards. Because of the public health funding and structures established, many contend that ACA will have lasting effects not only in broadening access to health care but changing fundamentally the country's health care delivery system. The Affordable Care Act, some propose, attempts to integrate two large fields of healthcare provision: individual care and population health.

With *An Act Providing Access to Affordable, Quality, Accountable Health Care* (Massachusetts Act 2006) Massachusetts offered expanded health insurance coverage in 2006. The Massachusetts Act of 2006 had few provisions for strengthening or restructuring public health. But with a health system infrastructure of collaborative networks and initiatives, Massachusetts can pose as a case study for investigating whether and how a closer integration of primary care and public health can take place. This research investigation asks “How and to what extent will the Patient Protection and Affordable Care Act more closely link public health within the clinical care setting?” This study will assess the current connection between public health and primary care practice in Massachusetts and identify

factors promoting or precluding further linkages with the aim of predicting the degree to which the Affordable Care Act will serve to better connect public health and primary care.

Part I provides an overview or context of public health and the Patient Protection and Affordable Care Act. Part II discusses the literature exploring the potential effects of the ACA on the public health-primary care relationship. Part IV describes the research methods undertaken and provides findings examining the role ACA will have on primary care and public health integration in Massachusetts. Part IV analyzes data resulting from the research undertaken and describes the research finding. Part V, the conclusion, provides a resolution to the research question posed.

Context

Asthma as An Example

As a chronic disease, asthma provides a good example to present non-integrated and integrated examples in healthcare. Primary care providers see patients with asthma, prescribing medication and providing education on how to identify possible allergens and manage this chronic condition. Public health professionals closely monitor asthma incidence rates and coordinate education programs geared towards community audiences affected by asthma. Separately, public health professionals identify patients and families of asthma sufferers to establish community wide education programs, investigate the local environments for asthma triggers, and work with other stakeholders to establish policies that prevent asthma in the broader population. These functions to treat individual asthma cases and reduce asthma onset across the broader community often take place in parallel without joining forces.

In a more integrated approach population health interventions would be rapidly informed by primary care data, identifying incidences geographically so that public health workers can more closely examine environments. The primary care setting would be the place where public health outreach

workers would involve the extended family, perhaps joined by other families of asthma patients, in health education and a treatment or management plan for a set of patients. The primary care setting would be part of a coalition of stakeholders who work towards policy level change for more rigorous building inspections, green space, or eradicating known allergens in the community setting.

Definitions and Organization of Health Care System

Primary Care

Primary care is defined as “the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community” (IOM, 2012, p. 20). Primary Care is considered the first location for most health care needs and as such is the principal point of contact for most patients. The primary care center meets a large portion of most health care needs and is a coordinating locus, originating referrals to other specialized practices.

Public Health

The Institute of Medicine (1988) defines the public health mission as “assuring conditions in which people can be healthy” through the application of knowledge that prevents disease and promotes health (IOM 1988, p. 7). The IOM charged local public health units with the role of ensuring that citizens have access and benefits to public health protections (IOM, 1988, p. 9). Federal, state, and local health departments have varying roles in assessment, policy development, and assurance. Critical public health functions are established and carried out at the local level (Turnock 1997, p. 157). Other community agencies not directly affiliated with federal, state, and municipal public health offices do comprise the public health system. These community health agencies work with health departments, community health centers, and larger health care networks. Community health agencies carry out

community based interventions, workforce education, and assessment and evaluation functions tied to the essential services described below. Community health agencies may also provide translation services and foster the use of community health workers as patient navigators or case managers for patients and often link patients to other available resources throughout the community.

In 1994 the United States Public Health Service and national public health organizations convened a Core Public Health Functions Steering Committee to define public health essential services.

These include:

- Monitor health status to identify community health problems;
- Diagnose and investigate health problems and health hazards in the community;
- Inform, educate, and empower people about health issues;
- Mobilize community partnerships to identify and solve health problems;
- Develop policies and plans that support individual and community health efforts;
- Enforce laws and regulations that protect health and ensure safety;
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable;
- Assure a competent public health and personal health care workforce;
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services; and
- Research new insights and innovative solutions to health problems.

(CDC, 2010)

Through core assessment and assurance functions, state and local health department services are tasked with improving the health of their jurisdiction's population. Health departments identify health priority public health issues. Health departments work in conjunction with other stakeholders: community health agencies, aging services, schools, and other not for profits to promote issues and interventions. State public health departments also fund community based interventions by funding collaborative projects which health agencies, community health centers, and other stakeholders may apply for. Funding projects at the community level allows for priority initiatives to be addressed at the community levels, often through evidence based approaches supported by the health department.

In developing policies and enforcing laws, public health offices assure health and safety standards of schools, restaurants, and other institutions, while defining and implementing policies for health related practices. As an example, Massachusetts Department of Public Health is the principal agency for the establishment and enforcement of policies related to the 2012 voter approved medical use of marijuana. Public health departments monitor disease spread throughout communities through surveillance systems that require health care units to report diseases incidences. Public health epidemiologists and statisticians maintain data and report on incidences to state and national agencies. These systems and procedures were established to track communicable diseases that spread through direct or indirect contact with infected individuals. The safety net functions of public health, assuring the provision of health care when otherwise unavailable, are also based on initiatives that prevent the spread of communicable disease. More recently, public health has turned its resources towards reducing chronic diseases (IOM, 2012, p. 26)

As a measure of health, the United States is 24th among 30 countries in life expectancy (78.7 years) while spending the highest on healthcare per capita (\$8,508). Health spending accounts for 17.7% of the country's gross domestic product, six percentage points higher than the average of 34 highly developed countries. (Organization for Economic Cooperation and Development, Health Data, 2013). Eighty-five cents of every dollar spent on health care are for chronic conditions that are preventable and manageable (O'Connor, et al., 2013, p. 69). Berman (2011) contends that expanding the availability and quality of medical care would only reduce preventable deaths by 10 to 15 percent. Yet studies identified by the Robert Wood Johnson Foundation cite public health investments needed to achieve reductions in deaths from cardiovascular disease (\$312, 274) than increasing the number of primary care physicians (\$5.5 million) for the same geographic area (RWJF, 2013).

Because it is largely funded through state, federal, and local government taxes, public health is constantly underfunded. Public health spending in the United States accounts for less than 3 cents of every dollar spent on overall health care while preventable and chronic diseases account for 75% of the country's health care spending (APHA, 2012). Public health funding is often enhanced by grant funding from foundations and philanthropies where public health departments and agencies maintain resource development operations to compete for non-government dollars. National public health associations and other health foundations are in constant advocacy for increases in government funding.

To summarize, public health is distinguished from medical care as interventions that treat populations take place throughout a larger community setting. Medical care is considered to be those interventions and therapies that are undertaken with an individual patient. For our purposes the terms medical care, primary care and clinical care can be used interchangeably while public health, community health, and population health are interchangeable terms distinct from medical and primary care (IOM, 2013). The broader term health care describes the wider realm of preventing and treating illness, disease, and injury and includes both public health and clinical care systems and settings. Health reform or universal coverage are interchangeable terms for the Affordable Care Act and its Massachusetts precursor, the Massachusetts Act of 2006.

Massachusetts Health Care Environment

The Blue Cross Blue Shield Foundation of Massachusetts (BCBS, 2012) characterizes the health care delivery system in Massachusetts with the following primary care entities: physician networks, medical groups, and community health centers. Larger hospital systems, who in addition to owning hospitals, may own and manage or have contractual and financial relationships with larger physician networks and may also have ownerships or contractual relationships with smaller medical groups. 84%

of Massachusetts primary care physicians are in eight of the largest physician networks and five of the largest medical groups. According to BCBS, the remaining number of physicians are part of small practices or are non-practicing. In Massachusetts there are nine physician networks, 169 major medical groups, and 55 community health centers. Community health centers are primary care care providers that serve populations with limited access to health care in designated medically underserved areas. Community health centers are either supported by the Bureau of Primary Care (BPHC) as a Federally Qualified Health Center or health centers that are not supported by BPHC but can be a hospital licensed health center. According to BPHC, Massachusetts' 36 federally qualified community health centers served just under 639,000 patients in 2012 (BPHC, 2014)

In Massachusetts, several initiatives and institutions are part of the healthcare landscape and direct their work towards community health and addressing health care access. These range from longstanding institutions, short-lived initiatives, to legislative-based policies. The Health Resources and Services Administration of the United States Department of Health and Human Services fund the Area Health Education Center (AHEC) Program to improve access to health care through partnerships and among its functions is the “promotion of interprofessional education and collaborative teams to improve quality of care” (BHPR). AHEC regional offices engage in a broad range of community health initiatives in collaboration with community health centers and other community health agencies. AHEC regional offices provide language interpretation and translation services, consulting in community health assessments, and developing health professionals training. Massachusetts has six regional AHEC offices throughout the state (Massachusetts Area Health Education Center).

The Massachusetts Act of 2006 established the framework of expanding insurance eligibility and creating health insurance markets with tiered pricing structures based on eligibility and enlarging the Medicare and Medicaid safety nets for the poorest residents. The Massachusetts 2006 Act included

limited prevention components including tobacco control incentives for Medicaid patients (Institute on Urban Health Research and Practice, 2014, p. 3). The Massachusetts 2006 Act also excluded any measures for cost containment in health care delivery. In 2012, An Act Improving the Quality of Health Care and Reducing Costs Through Increased Transparency, Efficiency and Innovation (Chapter 224) was passed and signed into law. With little enforcement mechanisms, Chapter 224 establishes a Health Policy Council that oversees and reports on health care providers whose overall costs would rise above 3.6% a year. The Health Policy Council makes public such increases and can recommend action by the state's Attorney General. Chapter 224 has succeeded in establishing a cost cap providers, and health insurance plans will aim to stay under (Carroll, 2013).

Chapter 224 of the Acts of 2012 also encourages the use of alternative payment methods “to improve the efficiency and quality of health care delivery” (CHIA, 2013, p. 1) The Center for Health Information and Analysis provided baseline information on alternate payment systems allowed for in Massachusetts Chapter 224 of the Acts of 2012 through a Baseline Report. Although fee-for-service payments are still prevalent forms of payments, alternative payment methods (APMs) accounted for 35% of payments in 2012. Although in early stages of implementation, there were no relationships associated with health status and alternative payment method use: there is no evidence as of yet that “members managed under global payment arrangements are consistently healthier or less healthy than other members. CHIA also reported no evidence that APMs were more or less expensive than fee-for-service arrangements. Despite few findings in terms of cost or health status, the Baseline Report concludes “Massachusetts commercial payers have taken significant steps to implement this approach(CHIA, 2012, p. 6).”

In 2012 Massachusetts passed the Prevention and Wellness Trust Fund. The Trust Fund is funded through insurance and health care network assessments and invests \$60 million over four years to

reduce preventable health conditions through evidence based community prevention activities. A Prevention and Wellness Advisory Board will oversee funding to priority areas that addresses preventable health conditions, health disparities, and improving healthy behaviors (Massachusetts Public Health Association, 2013). Although it is preceded by the ACA's Prevention and Public Health Fund which will invest \$1.6 billion a year for states to to invest in prevention and public health, Massachusetts' Prevention and Wellness Trust Fund is the first to originate from a state.

The Affordable Care Act

The Patient Protection and Affordable Care Act was designed to increase the access and quality of health care throughout the country. To fully take effect in 2014, ACA distributes responsibility for increasing access to health insurance coverage across the federal and state governments, employers, and individual citizens. Enlarging the population of healthcare consumers with expanded Medicaid or lower-cost health insurance, ACA also funds the increased capacity of community health centers (CHCs) throughout the country, allocating \$11 billion for CHC expansions from 2011 through 2015 (Rosenbaum, 2011).

The Affordable Care Act mandates individual coverage and establishes markets for individuals who are not covered by employer provided insurance to purchase coverage. The markets regulate coverage and prices so that a basic level of coverage is available at affordable costs. Insurers are obligated to cover populations with larger health risks and caps on coverage and exclusions based on preexisting conditions are banned. All health plans must cover specific preventive services which include a broad range of evidence based measures determined to have a moderate or substantial net benefit. The ACA also requires hospitals to conduct community health needs assessments and develop plans to address those needs. (Cogan, 2011; Kaiser Family Foundation, 2013; Shaffer, 2013)

The ACA also includes regulations that target health improvement at the population level. In particular, the ACA restructures public health funding by establishing a Prevention and Public Health Fund for a national prevention plan within the U.S. Department of Health and Human Services. Close to a billion dollars a year will be made available to state and local agencies (government and non-profit) for projects addressing prevention and improving health outcomes, including community prevention initiatives, surveillance and tracking, tobacco prevention, and public health workforce training. The ACA also creates two new organizational bodies within the U.S. Department of Health and Human Services to evaluate the cost effectiveness of preventive services, the Preventive Services Task Force, and to make recommendations for a national prevention and health promotion strategy, the National Prevention, Promotion, and Public Health Council (IOM, 2012).

While mandating payers on the private end (health insurance companies) to expand coverage to include preventive services, ACA enacted funding and legislation to drive change for how the Center for Medicare and Medicaid Services pays out for services for patient services. The law created the Center for Medication and Medicaid Innovation (CMMI) to fund demonstration projects that experiment with funding different systems of delivery that enable paying for non patient services. The goal of this legislation is to reduce expenses and lower overall healthcare costs. The IOM Report (2012) sees changes within CMMI as being able to advance public health and primary care integration. These alternative payment methods move payments away from strict fee for services to global payments that have spending targets or an agreed upon amount of reimbursement for a population (CHIA, 2013). Some alternative payment methods have built in profit margins while other methods have incentives where a provider retains the savings associated with cost savings and efficiencies.

To increase the capacity for health care access and delivery, ACA has several provisions for improving the supply and training of the health workforce. These provisions include capacity building

for primary care providers in community health as well as public health training programs related to mid-career training and fellowships for specialized training in epidemiology and informatics. Grants to Promote the Community Health Workforce create funding opportunities for the utilization of community health workers in health departments, clinics, hospitals, and community health centers. (Morrissey, 2011)

In mandating coverage and broadening access to sustained primary care, the ACA is a departure from the healthcare market as it was known prior to 2010. The passing of ACA, its vulnerability and judicial challenges garnered much of the attention paid immediately following its ratification and signing. More recently, continuing legislative challenges and problems implementing the federal and state exchanges have also been cause for attention. What is not often reported is how the healthcare landscape has been altered with measures taken to secure a more prominent role for prevention public health. Public health and primary care researchers contend that ACA provides for public health to become more fully enmeshed within the primary care setting.

III. The Literature

The IOM Report

The Institute of Medicine report, *Primary Care and Public Health: Exploring Integration to Improve Population Health* (IOM Report), describes integration as the linkage of programs and activities to promote efficiency and achieve gains in population health. The IOM Report was commissioned and funded by the Centers for Disease Control and Prevention and the Health Resources and Services Administration to provide recommendations on how both agencies could collectively improve health integration of primary care and public health. The report sought to avoid offering a sweeping vision of the integration that should take place between public health and primary care while providing concrete policy recommendations, and highlighting cases of public health and primary care

collaboration that can serve as examples in modeling integrative primary care and community health services (IOM, 2012, p. 2012). Integration connotes recognizing mutual goals in addressing an issue, joining different resources and talents, and having common objectives that work towards the same outcomes. The highest degree of integration is partnership, which implies a close linking of resources and services such that separation or identification of each entity is difficult or 'seamless' (IOM, 2012, p. 30).

The IOM Report delineated principles or characteristics that move public health – primary care collaborations towards successful sustained integration: First is the shared goal of population health improvement: both are committed to treating the larger group represented by a single patient in the primary care setting. Second is community engagement or a continuous interaction with individuals and stakeholders in the community in defining and addressing community health needs. A third principle is leadership that is synchronized in bringing together disciplines and programs with clear roles, ensuring accountability, and the ability to enact and sustain changes. Fourth is the establishment of a shared infrastructure that maintains the integrated program in continuous practice. The last IOM element marking integration is sharing and collaborative creation and use of data and its analysis that can be applied to community health assessments and health risk. (IOM, 2012, p. 61)

Demonstrating the varying modes and degrees of possible integration, IOM identified numerous examples of public health – primary care linkages throughout the country:

- In Michigan, six regional networks were established with stakeholders around community wide education on diabetes. The establishment of care guidelines, codified health education training in the care setting, and data gathering and reporting from home care providers underscored the clinical components of the community intervention.

- Six counties in contiguous areas of New York, Massachusetts, and Connecticut have combined for SPARC. The Sickness Prevention Achieved through Regional Collaboration is a catalyst organization bringing together local agencies to coordinate delivery of preventive care. SPARC uses public health specialists to train primary care providers to deliver behavioral health interventions that link patients to community health resources for prevention of diseases ranging from influenza to cancer.
- IOM cited Durham, North Carolina, San Francisco, and New York City as locations with multi-focused linkage programs with high degrees of sustained interaction across many health issues, collaborative governance, and data sharing. These projects also exemplified the use of multidisciplinary teams that included community health workers as community educators, and case managers. Coming from a given community, community health workers are emissaries or a resource person that patients and populations can rely on for receiving education, community referrals, and coordinating health care services.

Literature on Integration, ACA, and Response to IOM Report

According to the Institute of Medicine, the Affordable Care Act “presents an overarching opportunity to change the way health is approached in the United States” (IOM, 2012, p. 8). Rosenbaum (2011) and Hardcastle et al. (2011) agree that by establishing mandatory prevention services and requiring community health assessments, the ACA will fundamentally alter the policy landscape in which public health is practiced. Hardcastle et al. also argue for the better integration of medicine and public health. Treating the individual and treating populations should be interrelated. Greater efficiency, cost savings, and improved health outcomes for patients and populations can come from integration. A poor health care system, Hardcastle et al. argue, detrimentally affects public health

when fee-for-service reimbursement models encourage primary care providers to see as many patients as possible and less time is spent educating the patient and teaching preventive measures.

Hardcastle et al. observe that the ACA does not provide any “explicit linkages with health care actors or any clear mandate to improve integration” (Hardcastle et al., 2011, p. 321). The IOM 2012 report recognized disconnection in larger structures or institutions that support public health and primary care. Thus, for example, the IOM called upon the U.S. Department of Health and Human Services to restructure the relationship between the Centers for Disease Control and Prevention (CDC) and the Health Resources and Services Administration (HRSA), two federal agencies with vast responsibility over the public health and primary care infrastructures respectively, in order to create a policy environment for integration.

Increasing emphasis on prevention within the primary care setting, creating and sharing useful data, and establishing evidence based models of community health are strategies for making progress towards public health-clinical health integration. But what is needed, suggests Hardcastle et al. , “is to organize and fund health care and public health as a single integrated system.” (Hardcastle et al., 2011, p. 325) The aim should be to achieve a seamless levels of integration more characterized by the merging of both entities. However, national health policy experts interviewed by Sweeney et al. (2012) suggest maintaining separate but equally important institutions that work together towards community based solutions to health problems.

Cogan (2011) characterizes the ACA as a move towards transforming the health care financing systems into vehicles for promoting public health. With the ACA mandating preventive therapies in primary care, two barriers are broken: the public health-health care barrier and the legal barrier that maintains a fragmented health care system at a remove from evidence based preventive care services. Unlike Hardcastle et al., Cogan sees the ACA as a more explicit call for closer alignment of public

health with clinical health. Consistent with Berman's (2011) interpretation of the resistance to making public health a more prominent mode within health care, Cogan outlines state and national legislative influences that created benefit mandates based more on political appeals and emotional pressures than established evidence. (Cogan 2011, p. 360). Both share in maintaining some skepticism that public health and primary care can fully integrate given political and policy environments.

Like others, Berman (2011) argues for reform that makes public health a more prominent element of the health care equation. But for Berman, the individualist notion of health care as a personal responsibility is firmly ingrained and many health care stakeholders have an interest in maintaining health care as a patient centered endeavor. Bovbjerg, Ormand, and Waldmann (2011) similarly highlight the challenges inherent in public health funding: future benefits are not tangibly visible when the public benefits rather than the individual. Berman (2011) notes that public health measures within ACA do not extend to determining and detecting illness and risk within the community setting. Public health has broader, upstream approaches to prevention than those measures laid out by ACA. As with Cogan, Berman maintains stronger doubts that an integrated health care system can look critically at the social determinants of health and direct solutions towards those determinants. Berman sees the ACA as not going far enough towards public health measures because of the political culture of anti-paternalism and the overwhelming influence of industries whose products promote disease through use or cause environmental damages that cause disease and illness.

More optimistically, O'Connor et al. (2013), contend the ACA as a step in the right direction to improve population health because it allows for embedding prevention in the healthcare system. The authors describe a model of coordinated care organizations (CCOs) created in Oregon that are accountable for health outcomes across the community. CCOs provide coordinated care and delivery of physical, mental health, chemical dependency and oral health care. The model encompasses broad

health care sectors and relies on savings through prevention to contain costs. This model departs from accountable care organizations (ACOs) that have a narrower scope of demonstrating cost-savings in primary care practice for the patient pool the ACO supports. Restructuring payments or reimbursements to include non-clinical forms of interventions, O'Connor, et al. (2013) contend will be a key part in seeing greater integration of preventive services and public health measures within primary care. Sweeney et al.'s (2012) findings with policy leaders show agreement with this type of model where prevention based initiatives are reimbursable by payers.

Writing about public health department and hospital opportunities in community health, Davis (2011) notes the mandatory community health needs assessments will provide an area for public health agencies and clinical care organizations to work together to conduct and respond. Public health departments, for example, can provide expertise in research design and implementation as well as facilitating relationship building and stakeholder gathering (Davis, 2011, p. 2). While asserting the role of primary care Sweeney et al. also underscore the gateways public agencies can provide in linking clinical care practices with the larger community.

Fielding, Teutsch, and Koh (2012) examined how ACA can strengthen the performance of the public health system through the Healthy People 2020. Healthy People 2020 (HP2020) is a national program from the CDC that sets goals and objectives for public health outcomes. Because Health People 2020 places emphasis on the determinants of health, Fielding, Teutsch, and Koh (2012) argue that ACA is a “generational opportunity to attack underlying social and physical environmental determinants of health and foster linkages between public health institutions and medical care providers to create a healthier population.”

Gastmyer and Pruitt researched the perceived impact of ACA on a segment of the public health workforce: health educators. The ACA may help raise the profile of health educators in their role in

health prevention. National leaders of health educational associations who were interviewed, however, perceived that the health education profession had not yet been significantly affected by ACA but that the future would look different. Similar to O'Connor et al. (2013) regarding the linking role of the community health worker, respondents saw the health educator as having a greater role in a new health care system and as part of a health care team in clinical and community settings (Gastmyer and Pruitt 2013, p. 5).

Where Fielding, Teutsch, and Koh interpret the public health framework within ACA as an affirmation of the public health model of “placing the individual biology of disease within the context of the entire life course as well as the social and physical environments“ (Fielding, Teutsch, Koh, 2012, p. 30), Berman (2011) sees the wider ecological context as the reason why ACA is not a better vehicle for changing the health care. Identifying and addressing social determinants of disease and illness may be too radical a notion for traditional primary care. Still, Fielding, Teutsch, and Koh (2012), join Rosenbaum (2011), O'Connor et al. (2013), Hardcastle et al. (2011), and Galer-Unti (2012), in interpreting ACA as having the potential to affect public health care and further integrate public health practice with medical care clinical services. Moreover, Rosenbaum (2011), O'Conner et al. (2013), Bovbjerg, Ormand, and Waldmann (2011), and Sweeney et al. (2012), and Lebrun et al. (2012) all see payment eligibility for prevention and community education measures as an incentive for clinical care organizations to adopt more prevention based initiatives in order further link public health practice within the clinical care setting.

O'Connor et al. (2013) discuss four areas or change points where public health can take the opportunities provided by the ACA to ensure that prevention is a key component of health reform. Three of these areas correspond well to the CDC Core Public Health Functions described earlier. First is serving as a community resource for the coordination of care. The core public health functions here

are mobilizing community partnerships to identify and solve health problems as well as link people to needed health services. Second, leading the way on community health assessments where public health professionals carry out their core function of monitoring, investigating, and identifying community health problems. Third, linking clinical and community prevention. Here public health professionals perform their core function of developing policies and plans that support individual and community health efforts. The fourth change point is supporting the development of alternative payment methods for prevention. This area of policy development is possible if state and federal policy makers and payers allow for the billing prevention services as a reimbursable expense. As prevention reimbursement becomes possible, the primary care setting will become the locus of community health services. Integration will take place (O'Connor, 2013). These four change areas may serve as indicators for assessing the state of public health – primary care integration at a given location.

Summary of the Literature

The literature surrounding public health and primary care integration in the context of the Affordable Care Act makes observations regarding the somewhat polar roles these sectors represent. The literature also indicates that integration can be aided by the promise of cost savings predicted with newer reimbursement models. The health education, mediator, or community health worker role within a redefined health care delivery model has also been recognized in the literature. The literature also recognizes change points for public health within ACA: being a community resource, leading in community health assessments, linking clinical and community prevention, supporting the development of alternative payment methods. The IOM Report suggests four characteristics a health care system will need to facilitate integration: a shared population health improvement goal, continuous interaction with stakeholders, synchronized leadership, a shared infrastructure, and data sharing.

IV. The Research: Method, Findings, Limitations

“How and to what extent will the Patient Protection and Affordable Care Act more closely link public health within the clinical care setting?”

The Patient Protection and Affordable Care Act aims to place public health and prevention practice closer to the clinical care delivery system by mandating basic preventive services and creating a national prevention plan that includes the development of evidence based interventions. The literature reviewed reflects the notion that ACA will be a catalyst drawing public health and clinical care closer together. Here integration will take place either structurally through community health centers or ACOs requiring to demonstrate costs savings. Yet others argue that the ACA represents a missed opportunity to bring public health functions and its broader interpretation of health and wellness closer to public consciousness that can examine environmental and systemic problems that exacerbate health and wellness.

The Massachusetts health care system has a number of elements that can help foster integration. Universal health care reform was enacted in Massachusetts before the ACA. The state has a number of key stakeholders that would seem to increase the possibility of integration taking place: community health centers that have close ties to the communities they serve, the utilization of community health workers in health education and patient navigation, community health agencies that have a history of enacting collaborations that can facilitate and provide expertise in integration and community linkage. Massachusetts has also established a Prevention and Wellness Trust Fund to provide funding for sustained community health prevention.

With the literature examining how public health-primary care implementation can take place within the context of the Affordable Care Act and the Massachusetts health care system already having attributes that foster integration, this research set out to examine whether the current healthcare system in Massachusetts will enable public health and primary care integration as brought upon by the Affordable Care Act.

To gain a larger perspective on how integration can take place in Massachusetts the unit of analysis was the Massachusetts health care system. The purpose of the analysis is to draw conclusions about the contexts in which the policy of public health-primary care integration is unfolding and whether conclusions can be drawn that point to more predictive understanding of how policy and context interact in creating transformational models of integrated care delivery. Data were gathered from experts in the field of healthcare in Massachusetts. Focused interviews was the primary method of data gathering. A research protocol was developed to gather information on perceived impacts of ACA, how close the system might be to integration, characteristics within the system that push or pull towards integration, and the policies needed to make integration possible. A focused interview allows for gathering rich perspectives in a short period of time using a series of questions that guide the conversation towards perceived inferences and explanations (Yin, 2002) of specific areas of discovery generated by the research questions.

Subjects were selected based on their work directing programs and policies in the healthcare field. Not including expert participants from academia, participant experts had administrative oversight at the regional, state or multistate, and practice levels. Several methods were used to identify experts: Potential experts were identified by examining leadership rosters of key health care institutions and soliciting their inclusion as participants. Potential experts were also facilitated through a key informant who identified specific experts to solicit participation. One snowball-sampled expert participant was

identified at the suggestion of another expert participant. The table below lists the institutions represented in the potential sample of fourteen experts and the institutions represented in the eleven expert interviews conducted for this research. Codes are listed as used to attribute a quote or comment to a particular expert in the Findings section.

Table: Participant Institutions Represented

Potential Participant Institutions	Actual Participant Institutions	Codes
State public health department	Academia (3)	ACAD1
Federal payer	Community health center former director	ACAD2
Private payer (insurance)	Federal payer	ACAD2
State insurance provider	National health care delivery expert	CHCD1
Community health center	National health workforce expert	CMMS1
Large practice network	State health workforce expert	STPH1
Community health research institution	State payer (MassHealth)	STPH2
National health care delivery expert	State public health department (2)	NHCD1
Clinical care Association		WOFO1
Public health association		WOFO2
Academia		

Number of potential participants solicited= 14 Number of participants=11

Eleven semi-structured interviews were conducted: all but one interview was conducted over telephone, one interview was conducted in-person. Seven experts have direct roles in creating the healthcare environment, four experts have health policy roles in academia and have more indirect roles in shaping the healthcare landscape. Interview recordings were transcribed onto a spreadsheet to readily identify themes, differing, and concurring observations and opinions. Interviews questions focused on participant perspectives in four areas:

- The perceived impact ACA has on current and future integration
- Massachusetts health care system's proximity to integration at present, preceding the passing of ACA, and future notions of integration

- The presence of attributes or barriers within the state that may facilitate integration and whether these attributes are likely to readily facilitate integration
- The policy and practice level changes needed to enact closer integration

The following sections provide analyses of interviews as a descriptive account of ordering the data, identifying key dimensions and phenomenon (Spencer, Ritchie, O'Connor, 2003, p. 217) that folded into the above classifications. Explanatory accounts and predictive constructs are later developed in the Discussion section.

Findings

Perceived impact of ACA on Integration

According to research participants, the IOM Report was the expression of ongoing conversations surrounding primary care practices and preventive services for the past several years. With the IOM Report being commissioned by the CDC and HRSA, few IOM recommendations are made for the Centers for Medicare and Medicaid Services. The report created a framework for continuing discussion and concrete action as well as incite more integrated practices: “what the report did was create a theoretical construct, identify examples...but the read-between-the-lines message is that [integration] is not happening a lot” (ACAD1). For participant experts, the mandates and funding mechanisms within the ACA will help shift preventive services over to clinical care.

The ACA acknowledges there are complex impediments to health care that traditional primary care approaches do not address: these are often related to language, cultural norms, and health literacy. “Health access is a complex barrier not just concrete ones but personal narratives, personal internal barriers that influence health care” (STPH2). This theme related to cultural competency or a chasm between the patient and the provider is one that also arose when respondents were asked about the role

of preventive care in the primary setting. Here participants mentioned the behavior changing messages that need to be given in a provider-patient dynamic that is constrained by time and does not recognize the importance of delivering behavior changing education for long term outcomes (ACAD3). Often a guidance is given with very little assistance, reinforcement, or behavior tracking.

Participants indicated that necessary elements were placed within ACA to develop better integrative practices: increased access to care, increasing the capacity of primary care practices to expand care and provide preventive services as well as train the workforce to treat the patient. More importantly ACA allowed for CMMS to establish guidelines for alternative payment models that will allow for primary care practices to be reimbursed for community health and prevention services. Few of the expert participants mentioned the community health needs assessments mandated of hospitals and large care networks as having an impact on alignment efforts.

Public Health -- Primary Care Alignment in Massachusetts

Participant experts were asked to provide their perceptions of current and previous levels of integration of public health and primary care practices in Massachusetts. Some participants were able to identify previous examples, although limited, of public health-primary care interlinking. These instances were identified during periods of disease outbreaks. The AIDS/HIV crisis and other infectious and communicable disease outbreaks exemplified integration as public health departments had to provide communications, management guidelines, and mobilize practice sites to rapidly decrease the onset of a community-wide outbreak. Other participants, noted that there are past occurrences of interactions with collaborative community health interventions that were in operation for short periods and were dependent on outside funding sources.

A former director of a community health center described the community health and preventive services developed at the CHC. In addition to community based outreach, the CHC implemented oral health and behavioral health care. The CHC established measures to identify disparities in particular populations where interdisciplinary teams would design a response and measure the impact of the response. The preventive approach was a standard of care not relying on referrals from the primary care provider but all providers making a patient assessment. The idea of the individual patient assessment is to examine the patient within the context of their population or a representative of the population. “You have to look at the patient as all of the pieces they represent” (CHCD1)

Other participants noted the work of community health centers (CHCs) as advancing the preventive services within the clinical context in the areas of HIV, diabetes, and violence prevention. These participants noted that these short-term projects are not generally funded from core or operating funds, these projects can “come and go” (ACAD2). Also noted is the long history of data reporting primary care and large healthcare networks have had in reporting data to public health agencies. This reporting, one participant noted, is one-directional and in large part is not used by the health care practice nor does the public health department actively package data to inform care systems.

In terms of whether there has been any direct change in the relationship between public health and primary care since the ACA, some experts noted that the change towards integration is not yet apparent. There is agreement that the environment for integration is changing: there is more recognition of systemic changes that will need to take place in health care as influenced by the ACA. State public health experts did acknowledge that recent projects (described below) will begin to integrate community health within primary care.

In elaborating on the state of integration, participant experts admitted that public health and primary care operate as two different systems somewhat independently (ACAD2). Although there have been initiatives that require collaborative commitment, past projects do not rise to the level coming

close to integration. Other experts who did not mention the newer projects, placed the current level of alignment in Massachusetts in terms of the stages offered by the IOM Report (Mutual Awareness, Cooperation, Collaboration, Partnership) and placed the state of integration as one of mutual awareness (WOFO2). Another used the Transtheoretical Model (Stages of Change) to describe the state of integration as pre-contemplative (CMMS1). The level of policy establishment, project funding, and demonstration projects in place that “more and more practice systems recognize that they need to get on board and start thinking about how they are going to get on board” (STMH1) in Massachusetts.

Attributes of the Massachusetts Health Care Delivery System Affecting Integration

Participant experts were asked to speak to the attributes and/or barriers in Massachusetts that would affect integration. Comparing the state of preparedness of public health and primary care sectors, participants indicate both areas are just as unprepared especially in regard to what total integration can encompass. “Both are totally ill-prepared and I think it will take a major cultural shift” for integration to take place (WOFO2). Many services public health and community health agencies link patients to are unknown to many primary care practices, especially those that are not community health centers. Despite some collaborative projects among community agencies and community health centers, participants indicated that for the most part public health and primary care entities have no experience working together.

Participants often remarked upon the scope of integration described by the IOM Report and the broad spectrum of entities involved in public or community health initiatives beyond public health departments. The public health role is perhaps too large to assume that primary care will have the responsibility of tapping into the vast area of human support services. Public health departments are also inadequately staffed and may not be the best entity to lead or have a key role in integration. Public health programs work with the model of addressing the social determinants of health that primary care

does not delve into. One health workforce expert commented, as a health care team “they might as well be coming from foreign countries” (WOFO2). Participants also registered concern over the lack of funding and resource commitment to the state public health department. Participants noted regional directors in less populous portions of the state have long periods without being replaced after a departure. Another participant was dismayed over the withdrawal of access to the MassCHIP public health data retrieval system that had previously been widely available. These two areas, human expertise, and data support are seen by participants and the literature as key components public health departments can lend to integration efforts.

One participant indicated the current state of primary care remains on the “outer edge of that conversation [of] how to address system resources towards social determinants of health...things like access to quality education, space, food...all drivers of health” (STPH1). These participant observations begin to relate with Berman’s (2011) assertions about the dichotomous goals public health and primary care each have and the individualistic or patient-centric focus of primary care compared with the role of public health being concerned with upstream, root causes of illness and disease in the community setting. The two sectors of health care come from different orientations and have different approaches.

An expert noted that “health care reform still targets the top level pyramid [of sickness] when we need to address lower [health and wellness] levels of the pyramid....If we want to drive down obesity we can change farm subsidies for corn...that has little to do with investment in clinical or public health prevention. Marking junk food poison to children [to reduce obesity]. [These] would have tremendous impact on health care cost. It wouldn’t cost the federal or state treasury anything. I don’t think health care reform is poised to go at these drivers that are 40% premature deaths. I see that as part of the context.” (STPH1)

Another participant noted that integration throughout all sectors of primary care (community health centers, small to middle practices, larger care networks) may enter into integration in waves: Early adopters may receive funding or waivers to enable integration or, like community health centers, have some level of community health practice. Others here may place a high value on community health or are able to see the cost savings preventive interventions can have upon the practice. Others will be forced to adapt integration practices because of financial disincentives triggered by the ACA, CMS, or MassHealth policies. Then there are the “groups who actively resist...hospitals think that rather than adapt population health strategies they develop a monopoly to preserve pricing structures and their patient base” (CMMS1). Here another perspective indicated the resistance to adapt integration was more a matter of adapting to the change in the context of other reforms: “We have people in primary care that struggle to get through the day so they can bill, struggling to understand how to move from fee for service”. There is a “struggle to set aside time to do transformative activities, to integrate care teams, to become patient focused, and to adapt and use the non-traditional [community health] worker (NHCD1).

Through the Prevention and Wellness Trust Fund (PWTF) Massachusetts is funding the establishment of community health prevention projects with municipalities or health care networks as lead agencies with broad stakeholder participation and community health centers, hospitals, and health systems that will serve as interventions sites. Projects incorporate the development of community risk factors, community based education, and care coordination with primary care providers. Interventions utilize evidence based approaches with proven clinical outcomes that show cost savings over a period of time. These projects are directed towards pediatric asthma, tobacco cessation, treatment of cardiovascular disease, pediatric behavioral health.

These PWTF projects may be considered early adopters of integration and may offer models of public health-primary care integration. According to expert participants, PWTF projects will contribute

towards integration because of the broad participation of primary care entities who will participate in a governance group that will include local health departments and other community based organizations. The state public health department will provide technical assistance to help assure a culture of collaboration and equalize authority (STPH2). The projects also include an electronic reporting element geared towards introducing a communication mechanism that would involve electronic medical records and an electronic referral system. Project funding is designated to help establish the infrastructure for the electronic referral system. Characteristics describing these projects conform with four of the five elements posited by the IOM Report that mark integration: a population health goal, community engagement, synchronized leadership, and the collaborative data component. Whether these projects will have the organizational infrastructure for sustaining the integration is not apparent. Another participant expert has a role in one of the PWTF projects. The participant said the important value of the project is the community outreach or referral component that utilizes a community health worker to link patient-clients to resources, alternate providers, insurance benefits. “That’s my favorite part of the project, the community linking” (ACAD3).

Similarly, MassHealth unveiled a pilot program in October 2013. The Primary Care Payment Reform Initiative also established global payment reimbursement restructuring with 31 care practices at 60 practice sites. Here the participant expert referred to the practice model as the patient centered medical home where the sites would work to transform the practice to incorporate behavioral health integration. MassHealth has tied behavioral health approaches to measures for services and screenings related to preventive areas like tobacco use and smoking cessation, depression screening, BMI (body mass index) screening (STMH1). The realignment of care delivery at MassHealth pilot sites join the PWTF funded integration sites to provide opportunities for practice sites to undergo integration as well as provide the state and the country with models for how integration can be implemented.

Participants described a health care system as robust, with many stakeholders within community, clinical, and scientific settings that understand the issues around health disparities. In comparison to other states, one participant offered that “Massachusetts is ahead of the curve, it is much more poised on many levels including from or starting with universal coverage” (ACAD3). One expert noted two factors making the climate in Massachusetts is conducive to integration. One, the state has always been on the cutting edge of health care reform through its willingness to adopt transformational approaches. While this has been echoed by other participants the expert offered that the second factor will drive transformation and will ultimately drive integration: the unsustainability of the high cost of healthcare in Massachusetts compels providers to consider cost savings in community health approaches. Imposed cost restrictions and other policy mandates will also compel the move towards integration (STMH1).

Most participant experts underscored the utilization of community health workers (CHWs) in any integration model. CHWs have been part of previous collaborative projects, are a component of the integrated models illustrated by CHCADM1, and workforce and state public health expert participants all underscored the importance of CHW presence. “Community health workers are the linchpin in making integration work” (WOFO2).

Structural and or Policy Changes

Participants were asked to discuss the work necessary to allow for integrating public health and primary care. Participants agreed that the level of integration called for is a large undertaking that requires reorientation of services and their delivery. Participants noted that a shift in attitudes will be just as important in ensuring sustaining changes as the policy level change needed. According to expert participants, this means primary care assumes the responsibility of the community’s health and not just the individual patient entering the practice. For public health organizations this means relinquishing

some of their traditional functions in providing safety net services -- “assure the provision of health care when otherwise unavailable” (CDC, 2010). Public health, some respondents indicated, needs to change as much as clinical care. “Public health departments have a 19th Century vision of public health, they need the same leadership and vision clinical care needs. They need to jettison immunological, TB (tuberculosis) clinics, and other areas of care actual clinical practice can provide. [They need to] figure out how to do their essential functions without holding on to these clinical [functions]. [They] need to figure out what they can do about chronic disease, community health...” (CMMS1). A related observation by another expert was how pharmacies and drop-in medical clinics that offer flu shots and other health services that can perform a safety net function.

In terms of the work to be done to link public health or community health practices, experts indicated there is much work to be done. One expert participant described specific areas to address: The first is the conceptual thinking regarding what is health care and what is public health. The concept of clinical care when a patient is sick needs to be changed...”attitudes need to be changed”. Here the expert indicated this applies to all segments, and included the public’s notion of what health care is. This first area is relevant to comments from other experts: providers need to learn about health literacy and the community dimension each patient brings, “understanding that CHWs can provide valuable services that are just as important as what a physician does” (ACAD2), and creating the environment as well as providing the tools for authentic behavior change (WOFO2, ACAD3, CHCD1).

The second area to address is a “lack of consensus of what are the processes that we should hold for clinical care systems accountable for and what measures of accountability are” The participant noted that there is no consensus on the social determinants of health that can be acted upon under this system. This notion echoes those of other participants who addressed how public health and clinical health have different approaches and philosophies. A third area to be addressed is aligning or agreeing upon measures to define outcomes that address the agreed upon social determinants and other community

health issues that can be addressed in the new integrated clinical setting. This third area was echoed by another expert who indicated planning would involve conceiving of new outcome indicators that account for enhanced prevention based services.

A fourth area to address or develop are those sustainable models of funding community health. The models of reimbursement for community health prevention also need to be defined. This area relates to another expert observation about the fiscal priorities that may be changed for the clinical care system and how prevention services will need to be enmeshed and prioritized in an operation with multiple clinical priorities.

In discussing the composition and practice of integrated community health care, participants addressed the model of leadership, level of collaboration, and community participation integration will need. Addressing whether the PWTF projects will contribute to integration, a participant offered “The real issue is who is making the decision of what gets funded, what are the priorities, what level of input does public health and the community have in identifying needs...it depends on how well the trust will be managed” (CHCD1). As noted, other participants indicated the PWTF along with the CMSI and the PCPR projects will all contribute to new payment reform models that incorporate community health approaches in primary care.

Disparate perspectives exist on what the public health departments can offer to community health integration. Participants indicated public health departments can lead in providing assistance in how primary care can take on community health models of intervention and practice. Experts suggested public health should take the opportunity to build its own capacity to not only provide community intervention assistance but also offer expertise in data analysis for understanding and aggregating data from electronic health records and other data sets in applying epidemiological principles to smaller geographical tracts that are useful to primary care practices (NHCD1). While the state public health department administers the PWTF funding and provides technical assistance in maintaining

collaborative decision making, there is concern from several experts of public health departments' ability to sustain a consultative role in primary care integration. Experts noted how under-resourced the state public health department and its regional offices are with regional director positions in the western part of the state unfilled for the past seven years (WOFO2). A national expert noted "we have a public health system that is decimated, struggling to deliver the ten essential services and core functions" (NHCD1). Still others do not believe the public health sector is forward thinking enough to be an expert or a capable convener (CMMS1).

Other entities may also enter in the practice consultation area to assist primary care in integrating community health principles. One expert noted that a third party vendor was hired by a consortium of hospital networks in western Massachusetts to conduct their mandated community health assessments. The vendor developed one community assessment and each hospital developed their own plan in response to the assessment (WOFO2).

According to a state public health policy expert, another driver is the cap on health care expenditure growth placed on health care providers through Massachusetts Chapter 224. Integrating public health services within primary care is not the most direct method of achieving cost containment. The same expert also noted that health care systems can focus on other cost cutting areas before enacting a system wide restructure of integration. Another expert raised concern about the common notion that public health will lower costs. Most prevention interventions, cost just as much if not more money even over the patient's life span. Cost saving measures in prevention are associated with childhood immunizations and flu shots. "There isn't recognition that prevention takes time and money but it is money well spent. Few interventions demonstrate cost savings although they are the right thing to do" (ACAD3).

In contrast, the community health center expert asserts the cost savings of public health interventions. The expert cites two initiatives that proved cost effectiveness. One, a community wide intervention for reducing rates of low-birthweight infants by 50% using case managers and community health workers. The intervention demonstrated cost savings in comparison to the high costs of neonatal clinical care needed for low birthweight infants. The second intervention that demonstrated cost savings was an education intervention for asthma patients and teaching patients their own self-care that reduced emergency room visits for that group of patients. “This is about doing smart work. The only way to work smartly is to measure, have a baseline and measure your difference. We don’t only have to do good work, we have to do smart work” (CHCD1) .

Most participants consider the payment models allowing for broader forms of reimbursement including community health interventions will be a key element that will enable integration. One participant indicated the Community Transfer Grants funding program will focus attention on community health interventions towards health issues that are also being addressed in the primary care setting (ACAD2). Another expert indicated these fund have not been strategically applied and instead have been channeled to shovel-ready projects that do not leverage real change (CMMS1). Still, most participants commenting on these funding mechanisms indicated these to be an important element in establishing integration..

An expert participant explained the payment policies within the Center for Medicare and Medicaid Services that might drive integration. Through ACA, CMS has two mechanisms: one where payment policies are based on pay for performance with incentives and disincentives; the other is the Innovation Center demonstration sites that develop and implement reimbursement models for how ACOs and other providers can implement payment structures that enable cost savings across patient populations. The first mechanism is more of a policy ruling and has not been instituted, The demonstration projects

precede any widespread replication of cost-savings practices. As one expert indicated, “If we can structure payment into the delivery system to create incentive, permission, [and] expectation to integrate community preventive services with the [primary care] model of services...that’s the bottom line that is not figured out yet” (STPH1).

Another expert described a per-member per-month (PMPM) payment structure in which global payments are structured where a portion can be allocated for community health prevention practice. As previously mentioned in the literature review, Massachusetts 224 enabled a global payment structure where private insurance companies have begun instituting PMPM global payment while maintaining a fee-for-service payment structure.

This reimbursement for preventive services is an additional layer of fiscal complexity as the health care system will have to begin to budget for community health costs. Community health costs will have to generate savings for the health care system while the system may be slow to realign its fiscal practices towards value based reporting. Here the health system or large practice is shifting from receiving payment for services received and those resources devoted to those payments are easily quantified. Quantifying savings from community prevention and placing a value on that new area of practice is an adjustment. According to the state public health expert, “Think about the community health worker in a clinical care team as they help succeed and drive urgent care utilization [down] and accrue savings...do they (the health care system) increase pay and benefits to the community health worker, do they contract with community based agencies that do home assessments that replace pillowcases, vacuum cleaners...or does it (the cost savings) go to increase physician and nurses salaries, hire other providers, upgrade their information technology...these are difficult tradeoffs” (STPH1).

All participants indicated that much needs to happen in order for alignment to begin. Participant experts noted the payment reforms needed to take place. Another driver will be the establishment of Accountable Care Organizations (ACOs) where the large health care network must demonstrate

agreed-upon levels of cost savings in order to qualify for federal CMMS reimbursements. These are in the early stages of being established. Another initiative that will affect or advance integration is the patient centered medical home (PCMH) that will integrate other health related services like mental health, substance abuse, and clinical specializations into a primary care center. (ACAD1, WOFO2). One respondent indicated that “for the first time in my career there is a consensus between policy makers and practitioners that [integration] is important. We are rapidly coming to a point and have made more progress in the last several years than in the last 25 years” (CMMS1) .

All expert participants noted the importance of the role data will play in the practice of implementing and conducting community health interventions. Here data compiling and computation is important in two ways. Data is necessary in indicating which community health diseases and conditions are prevalent in a given area; this data can be used in creating measures for outcomes and analysis of effective interventions. Another form of data to be used is indicating where patients are enrolled and where they are receiving care. This is important to primary care providers in an alternative payment mode. where a per-patient amount is given by the payer to establish and maintain preventive and community health service therapies and initiatives. A patient may be seen at different practices and a payment or reimbursement is given by the payer to the practice last visited by the patient (NHCD1)

Beyond policy, technical assistance, and technological infrastructure for data, primary practice, expert participants agreed, needs time to enact the transformation. Developing new intakes, workflows, collaborative teams, establishing the support infrastructure all take time. “We have an ambitious agenda and the best we can do is to give them the proper incentive and the tools to transform. But it is not going to happen overnight” (STMH1). Another expert relating the same need for time, noted the constraints primary care practices face where Massachusetts and the ACA health care reform has

increased demand for care and clinical staff need non-clinical hours to work in the procedural levels of practice integration (NHCD1).

Limitations

This research study aims to gather observations and perspectives on current and future models of primary care-public health integration within the primary care setting. Research attempting to examine and capture a broad environment or system are limited by large geographies and the uncertainty where experts may not know what they do not know. The complexity is also compounded by how relatively new the concept of integration is. This prohibits triangulating observations with quantifiable data to confirm or dispute findings. Reliable findings necessitate a completeness of sampling and replication of responses. Replication was attained when similar observations are made from different experts: data and global payments are key elements to integration, public health lacks resources to effectively foster widespread integration, etc.

The concern then is for a completeness of sampling. A theoretical sampling approach sought to select expert participants presumed to have substantial contributions to understanding the policies and practices surrounding both public health and clinical health care realms in the contemporary setting of ACA. In terms of gathering a complete perspective, the research results are limited by the breadth of perspectives captured in the investigation process. While the investigation captured wide perspectives incorporating many realms of the state's health care system, several perspectives or voices are notably absent. Attempts were made to enlist participation from the private payer or private health insurance perspective. The implementation of global payments and the organizational viewpoint or reaction to funding integration was not captured in this study. Missing as well is the perspective of the primary care provider. The research would have drawn more precise observations related to how large care networks, mid-sized practice groups, or small practices may be approaching the oncoming trend of

integrating community health initiatives in the practice setting. Efforts to enlist these viewpoints were unsuccessful.

V. Discussion and Projections

Integration and the ACA

The ACA is regarded as an important part in enabling integration of public health with primary care. The most important element in the Act is the mandate to establish APMs or alternate payment methods, moving away from a the fee for service model to a payment structure where the practice specifies a cost of health services for an individual or group. The APM or global payment structure creates incentives for providers to incorporate prevention and community health interventions that can be more cost effective. The ACA restructures public health research funding, mandates some preventive services, and funds workforce training for primary care practice. ACA's influence on integration is more implicit and the incentive driven. Demonstration projects follows that pattern of bringing primary care towards public health practices without rule or fiat.

Massachusetts' Current Environment and Attributes Affecting Integration

Participants agreed Massachusetts has an environment conducive to health care transformation and elements or initiatives are in place that are important to integration. Community health workers are part of health education and case management approaches to care in community health centers. CHCs are at the vanguard of public health integration because of their utilization of CHWs and their history of conducting community based interventions. The role of public health in Massachusetts health care,

its long history in promoting community health, and broad stakeholder involvement in policy and practice are attributes that help create an environment more ready for transformation.

These elements contrast against other attributes seen as barriers to or inhibiting the capacity of the health care system to transform into fuller integration:

Public health departments are under-resourced. The state public health departments can have a consultative or go-between role in bringing community stakeholders and public health practice elements to the primary care setting but their ability to be an influence at a regional or city level is limited. Their contribution may be more statewide, working with larger stakeholders, establishing guidelines, and managing key projects originating from the PWTF. The public health safety net role should shift away from public health departments, they can mobilize primary care networks in safety net or outbreak instances. An important transformative role for public health departments is establishing an infrastructure for data driven community interventions: creating two-channel or multi-channel means for delivering useful data. These shifts will take substantial capacity building in a context where the state public health infrastructure needs further resource commitments. Intermediary organizations and agencies like AHECs and other third party community health consulting agencies will also play a convening and consultant role, offering technical expertise in workforce training and community health practices to primary care practices.

In primary care, those elements seen as conducive to integrating primary care (CHWs, CHC approaches) are not in widespread use throughout primary care practices in the state. The level of integration called for in the IOM 2012 Report is not evident in a sustained form. Public health-primary care integration is a conversation taking place with demonstration projects peppered throughout the state. Experts indicated integration is a choice primary care practices will have to come to with some resistance. APMs bring about the option of integrating community health practice; integration is not an

imperative but it may be among a range of cost savings choices providers can opt for. It is uncertain whether primary care integration will encompass or make operational a full enough expression of public health principles; whether primary care can move from the top, sickness portions of a health pyramid to address lower, wellness levels of the pyramid.

Policy and Practice Changes

The public health principles that can be applied to the primary care setting are those like health literacy, incorporating CHWs, and behavior change approaches that take into account the patient's narrative and the narrative of his or her community in shaping their health. These practice changes might be incorporated into the current paradigm of care by realizing the change needed, redefining the parameters of primary care, and then establishing new measures and indicators for individual and community health outcomes for the practice setting. Establishing the funding model within a global payment structure and the data analysis infrastructure are two other important elements.

While policies and practices related to alternative payment methods are being developed, there is little action or discussion taking place regarding extensive policies or practices applying and creating data to practice initiatives in shaping community interventions or informing the individual patient encounter. Work on establishing this area of integration seems inexistent. Instead access to the MassChip data utility has diminished. The PWTF projects are establishing an electronic communication and reporting infrastructure, but these structures may not match the level of complexity needed for local analysis needed for integration. This is an area where more policy making needs to be done to establish parameters and guidance for what data is to be used and applied in creating, assessing, and reporting on outcomes related to community health interventions.

VI. Conclusion

How and to what extent will the Patient Protection and Affordable Care Act more closely link public health within the clinical care setting?

Projects providing future models of public health-primary care integration (PWTF, MassHealth's PCPRs, the national CMSI demonstration projects), the Patient Centered Medical Home/Accountable Care Organization models of practice, and global payment models replacing fee for service payments are all important pieces for building a transformed primary care practice incorporating public health practices. Many of these are recent policies emerging from within the last two to four years. Trace notions of what an integration model looks like are visible with some important elements in place: funding through alternate payment models, underscoring a process for practice transformation, early buy-in from practices willing to design and experiment with model approaches. Integration is not a joining or merging of physical entities but a combining of principles and practices

One important element missing is establishing mechanisms for incorporating data into new community based outcome measures for primary care practices. Primary care practices are sifting through a myriad of options for transformation to medical home models. Parameters for which elements of community health practices are to become part of primary care are not defined. Until further policy is defined, how far each health care network, practice group, or small practice will incorporate integration, looks to be at their discretion. In the current multi-payer model, community health interventions can become another measure for which consumers will choose a care provider. Variation in community health practices will occur but the benefit will be that more people and more populations will experience some form of community health care. This is not a bad trade-off.

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Appendix

Study Protocol

1. **Review research goals and role of interview.**
2. **Interviewee reviews consent form; signs, may keep a copy.**
3. **Record date and time of interview. Begin timing interview.**
4. **Begin recording.**
5. **Enter times for each question discussed; write cues or significant phrases terms.**

Interview Introduction & Consent Interviewer/Investigator: Javier Crespo

Thank you for agreeing to participate in this study. As I previously stated, I am a student at UMass Boston's Master's of Science in Public Affairs academic program. My research is investigating how universal health coverage will have an impact on the interlinking role of public health and clinical health care. I want to examine whether those two areas of health will be brought closer together or become more closely integrated with the federal Affordable Care Act.

I am gathering data on expert perceptions from people like you and other leaders and policy makers in health care. My investigation is based on the Institute of Medicine's *Primary Care and Public Health: Exploring Integration to Improve Population Health*, released in 2012 as well as subsequent research and discussion pieces in reaction to that report.

The interview should take forty five minutes.

The results of my research can be made available to you. My documents and publications of this research will not contain any information that would indicate a specific person, organization, or agency identified by name. You will not be identified.

Do you have any questions about my research or about my protocol in assuring anonymity?

Research participants and the institutions they work for will remain anonymous; personal names will not be used in any publication issued from this research. I will keep any identifying information related to this study, personal and institution names secured in physically protected, locked, or password protected. Labels indicating a specific or expert participant to be used in drafts and spreadsheets for analysis will be coded. Keys or legends linking codes to specific names will be physically protected.

The questions will give you a chance to reflect upon your organization's interactions with other areas of health care. Although you will not receive direct benefit or payment from your participation, others may benefit from the results and conclusions garnered from this research.

With your permission I will audiotape the interview so comments can be accurately captured. The audio comments will be digitally stored and password secured.

- Please describe your office's role in the larger organization?

This is so that I can categorize data in terms of the sector of health care.

- How would you describe the current level of alignment between primary care and public health in Massachusetts.

Asking for a broad assessment of alignment taking in the state or your region in the state.

- What are some areas where public health might already be well integrated with clinical health care services?
- Do you think there is a larger role for preventive health services in clinical care settings?
- Do you think there's been any change in public health-primary care interaction with the onset of the Affordable Care Act or the Massachusetts' Comprehensive Health Care Coverage?

What type of change?

Where has the change been?

- Do you think universal health care coverage will help create deeper linkages or more closely align public health and clinical health practices in the future?

I can illustrate types of linkages or examples

- What do you think needs to happen in order for deeper linkages to take place in Massachusetts?
- How positioned for integrating primary care and public health practices is Massachusetts?
 - What does Massachusetts have as part of its health care system that will allow for interlinking?
 - OR What is about Massachusetts that inhibits interlinking public health with primary care?
- What do you think are some of the administrative or state policy level changes that need to take place in order to foster new or further linking?
- What are some areas where public health is not as well integrated with clinical health services?
- Is there a question that I did not ask or an something you would like to respond to not covered in these questions?

I want to thank you for your time and for contributing to my research.