The Workforce Transformations Needed to Staff Value-Based Models of Care

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I. Executive Summary

The Secretary of Health and Human Services announced that by 2018, 50% of Medicare payments will be tied to value through alternative payment and care delivery models. Significant efforts are underway to implement new models of care, including patient-centered medical homes and accountable care organizations. What will this shift to value-based payment and care delivery models mean for the workforce?

This brief synthesizes the emerging body of evidence on the workforce implications of new models of care. We identify three dominant trends:
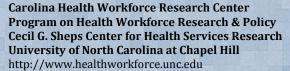
1. traditional health care functions are increasingly being delegated to new types of workers, so called "task shifting";

2. new staff roles are emerging to provide enhanced care services; and

3. employers are facing significant challenges integrating new roles into the existing human resources infrastructure.

While front-line delivery systems are actively reengineering staff roles and care processes, the policy structures supporting the workforce have been slower to respond. Health workforce stakeholders, including the professions and their associations, educators, regulatory bodies, payers, researchers and policy makers need to retool their focus to keep pace with health system transformation.

KEY FINDINGS AND IMPLICATIONS FOR HEALTH WORKFORCE RESEARCH & POLICY

1) Health care professionals are taking on new roles with medical assistants having one of the most rapidly evolving roles in new models of care.

2) New roles are emerging that focus on
   a. coordinating and managing patients' care within the health care system; and

   b. "boundary spanning" functions that address the patient's health care needs across health and community-based settings.

3) Employers are struggling to rewrite or create new job descriptions, reconfigure workflows, and develop training to support task shifting and new roles.

4) Health workforce researchers and policy makers need to shift focus from "old school" to "new school" approaches. Specifically, they need to shift focus from:

   - workforce shortages to developing a better understanding of how the existing workforce could be redeployed and reconfigured to address the demand-capacity mismatch;

   - provider type to provider role because different types of health care providers can take on the same roles; and

   - training new professionals to retooling the existing workforce since they will be the ones who will transform care.

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II. Introduction

Hospitals, health systems and community-based practices are experimenting with ways to redesign care delivery models to achieve the triple aim. Fueled by new payment models that reward value over volume, efforts are underway to implement patient-centered medical homes and accountable care organizations that provide patients with more comprehensive, accessible, coordinated and high quality care (Davis, Abrams, & Stremikis, 2011; Shrank, 2013). Many of these innovations are in the early phases of implementation and have not yet been evaluated. Early evidence is inconclusive about whether new models of care will achieve their anticipated effects on patient outcomes (Friedberg, Schneider, Rosenthal, Volpp, & Werner, 2014; Peikes, Zutshi, Genevro, Parchman, & Meyers, 2012). One reason for the inconclusive findings may be that not enough attention has been paid to reconfiguring the workforce as an integral component of redesigning care.

Research has begun to investigate how the widespread adoption of new models of care will affect the numbers and types of health care providers needed (Altschuler, Margolius, Bodenheimer, & Grumbach, 2012; Auerbach et al., 2013). These studies describe how teams of health care providers are meeting the needs of patients in both home and community-based settings. Roles that were uncommon ten or twenty years ago—community health workers, health coaches and care coordinators—are becoming increasingly common (Peikes et al., 2014). Physicians are now classifying themselves according to their organizational role rather than their specialty using terms such as "hospitalist" and "intensivist" (Siegal, Dressler, Dichter, Gorman, & Lipsett, 2012).

The pace of health system transformation will accelerate with the recent announcement by the Secretary of Health and Human Services that 50% of Medicare payments will be tied to quality or value through alternative payment and care delivery models by 2018 (Burwell, 2015). What will this shift to value-based payment models mean for the workforce? This paper synthesizes the existing body of evidence on the workforce implications of new models of care. We identify three dominant trends:

1. the delegation of traditional health care functions to new types of workers, so called "task shifting";
2. the emergence of new staff roles to provide enhanced care services; and
3. the challenges facing employers as they try to integrate new roles into the existing human resources infrastructure. We conclude with a discussion of the implications of these trends for health workforce research and policy.

III. Methods

We reviewed United States-based literature published after the passage of the Affordable Care Act (2010). Relevant publications were identified through PubMed searches and reference lists from identified studies. We used key word and MeSH search terms that included health care staff types (e.g. medical assistants and nurses), staff roles (e.g. care management and health coaching) and delivery models (e.g. patient-centered medical homes, accountable care organizations and integrated delivery systems). We focused on staff roles that are new or have undergone significant transformation in acute, ambulatory, and community care settings. We limited our search to those roles that involve direct patient care. Given the emerging nature of this field,

we included works of varying evidence quality (randomized, non-randomized, and descriptive studies). Our review is narrative, not systematic, because the field is so new, and so broad, encompassing a large range of health workers and diverse practice settings.

This review builds off foundational work by Ladden et al. 2013 and Friedman et al. 2014. Our synthesis extends these earlier works in a number of ways. First, past work has predominately focused on ambulatory practices; we include workforce roles found in integrated delivery systems that address patients' health care needs across the care continuum, from community to ambulatory to acute care settings. Second, we focus on transformative workforce innovations—those innovations that fundamentally transformed existing practice structures and required changes in job descriptions and workflow. Finally, we identify the workforce implications of health system redesign for health workforce research and policy.

IV. Results/Discussion

New Responsibilities for Existing Staff
Significant task shifting is occurring among health care professionals in the delivery of traditional health care services. Medical assistants (MAs) have one of the most rapidly evolving roles in redesigned health care delivery models (Chapman, Marks, & Dower, 2015). MAs are taking on a range of new functions including taking patient histories, giving immunizations, providing preventative care services (Bodenheimer & Smith, 2013) and documenting clinical encounters (Bodenheimer, Willard-Grace, & Ghorob, 2014). MAs are completing pre-visit activities; reviewing patient charts and flagging overdue services to be addressed during the visit (Chen et al., 2010; Ladden et al., 2013;

O'Malley, Gourevitch, Draper, Bond, & Tirodkar, 2015). In many practices MAs are able to deliver these services using standing orders and algorithm-based protocols that do not require the direct involvement of other providers (Bodenheimer, 2011).

As MAs take on additional responsibilities there is a domino-like effect on other health professions, particularly registered nurses (RNs), whose roles often overlaps with MAs. RNs are assuming greater direct patient-care responsibilities (Bodenheimer, 2011; O'Malley et al., 2015). They are refilling prescriptions by protocol (Ladden et al., 2013), entering patient care information into electronic health records, creating care plans, and providing patient education (Goldberg, Beeson, Kuzel, Love, & Carver, 2013). In an effort to increase access, some practices are using RNs for same day appointments or group visits (Bodenheimer, 2011). Increasingly, nurses are assessing the long-term needs of individuals with physical and cognitive impairments, developing customized care plans, coordinating care across teams of providers in different settings, and overseeing the adequacy of services for older patients with complex health care needs (Fraher, Spetz, & Naylor, 2015).

Nurse practitioners (NPs) and physician assistants (PAs) are managing their own panels of patients and providing the bulk of care for patients with less complicated acute, chronic, and preventive care needs (Auerbach et al., 2013; Margolius & Bodenheimer, 2010). NPs are taking lead clinical and management roles in innovative care models such as nurse-managed health centers, workplaces, schools and retail clinics (Naylor & Kurtzman, 2010). Goldberg et al. describe a "top of the license model" in which physicians and nurses jointly care for a panel of

patients with nurses taking on many of the tasks formerly done by physicians (Goldberg et al., 2013). This model is dependent on scope of practice laws that allow such task shifting to occur (Pohl, Hanson, Newland, & Cronenwett, 2010).

Pharmacists are increasingly found in new models of care to coordinate drug therapies, develop medication management plans and prevent medication problems (Dow, Bohannon, Garland, Mazmanian, & Retchin, 2013; Sandberg et al., 2014; Smith, 2012). Pharmacists are meeting directly with patients to discuss treatment plans and follow up care (Matzke & Ross, 2010; Smith, Bates, Bodenheimer, & Cleary, 2010; Smith, Bates, & Bodenheimer, 2013). California, Montana, New Mexico and North Carolina have created advanced practice pharmacy designations that expand pharmacists' scope of practice to include providing direct patient care, but reimbursement for these services remains problematic (Isasi & Krofah, 2015). **Table 1** outlines some sample roles from the literature that are being undertaken in value-based models of care.

Table 1. Roles in Value-Based Models of Care

Staff Type	Examples of New Roles	References
Medical Assistants	Taking patient histories, giving immunizations, providing preventive care services, health coaching, coordinating referrals, managing disease registries, conducting home visits, providing patient education, scribing	Bodenheimer & Smith, 2013 Chapman, Marks, Dower, 2015 Ladden et al., 2013 O'Malley et al. 2015
Registered Nurses	Refilling prescriptions under protocols, entering and interpreting data from EHRs, creating care plans and providing patient education, acting as care coordinators/ case managers/transition specialists, developing care plans to address the long-term needs of individuals with physical and cognitive impairments, overseeing the adequacy of services for older patients with complex health care needs	Bodenheimer, 2011 Grace et al., 2014 Fraher, Spetz, Naylor, 2015
Nurse Practitioners/ Physician Assistants	Managing own patient panels and providing care for bulk of patients with uncomplicated acute, chronic care needs and taking lead clinical and management roles in nurse-managed health centers, workplaces, schools and retail clinics	Auerbach et al., 2013 Naylor, Kurtzman, 2010 Goldberg et al., 2013
Pharmacists	Coordinating drug therapies, developing medication management plans and educating patients	Dow et al., 2013 Bates, Bodenheimer, 2013 Sandberg et al., 2014

New Emerging Roles

New roles have emerged to deliver enhanced health care services. In some practices, existing staff provides these services; in other practices new staff has been hired. Many enhanced service roles have similar functions but different job titles. For example, both care coordinators and transition care specialists coordinate care for patients with multiple chronic diseases but their roles vary in different health care settings and for different types of patients. Other new roles have the same job title but different functions. The term "navigator" may describe staff that helps individuals obtain health insurance in the marketplace. The title also describes workers who help patients with complex illnesses navigate their way through the maze of doctors' offices, clinics, hospitals, and insurance claims. Different types of health professionals may take on the same enhanced roles; for example, there is overlap between the functions performed by MAs, social workers and nurses in new models of care.

Because there is significant heterogeneity within and between job titles we have chosen to describe roles, not titles. We focus on two categories: 1. roles that focus on coordinating and managing patients' care within the health care system; and 2. "boundary spanning" roles that address the patient's health care needs across health and community-based settings.

Expanded Care Coordination Roles

Care coordination roles are not new. However, the recent focus on reducing fragmentation of care and the rise of payment models that reward health systems for keeping patients out of the hospital has increased demand for care coordination for a wider range of patients (Naylor, Aiken, Kurtzman, Olds, & Hirschman,

2011). In January 2015, Medicare began paying $42 per month for managing care for patients with two or more chronic conditions like heart disease, diabetes and depression (Edwards & Landon, 2014). This new reimbursement stream is likely to accelerate the amount of care coordination delivered in new models of care.

Nurses most often take on roles as care coordinators (coordinating care across multiple providers), case managers (managing caseload of patients with intense care needs), or transition specialists (supporting patients as they transition from the hospital into the home or other setting) (Naylor et al., 2011). Nurse roles as coordinators are increasingly supported by pharmacists (Brown, Peikes, Peterson, Schore, & Razafindrakoto, 2012; Smith et al., 2010), behavioral health providers (Ladden et al., 2013) and social workers (Sandberg et al., 2014).

Boundary Spanning Roles

An increasing number of staff in new models of care are focused on "boundary spanning" roles that shift the focus of patient care from visit-based to population-based strategies. Two examples of boundary spanning roles that are increasingly found in new models of care include panel managers and health coaches but others exist in the literature (Garson, 2013).

Panel managers use patient registries or data from electronic health records to identify and address gaps in care (Bodenheimer, Ghorob, Willard-Grace, & Grumbach, 2014; Ghorob & Bodenheimer, 2012a). For example, a MA might query a patient registry to identify women between 50 and 74 years of age who should receive mammograms. After identifying those women who have not yet received the recommended service, the MA could contact them, order the mammogram and notify them of results, if normal (Ghorob & Bodenheimer,

2012a). Panel management requires health staff to assume responsibility for the health of all the patients in their panels between visits (Chen & Bodenheimer, 2011).

Health coaches are tasked with improving patient knowledge about a disease or medication and promoting healthy behaviors. The growing body of evidence that patients who are more actively involved in their health care experience better health outcomes and incur lower costs (James, 2013) has spurred health systems to hire health coaches. Health coaches are common for patients with specific conditions, like diabetes, hypertension or hyperlipidemia (Bennett, Coleman, Parry, Bodenheimer, & Chen, 2010; Ghorob, 2013; Margolius, Wong, Goldman, Rouse-Iniguez, & Bodenheimer, 2012; Patel et al., 2013). Health coaches can be MAs, nurses, health educators, social workers, community health workers (CHWs) or pharmacists (Bodenheimer et al., 2014; Martinez, Ro, Villa, Powell, & Knickman, 2011). Before a visit, a health coach might reconcile the list of medications, review the purpose and use of each medication, and help identify an agenda for the visit with the clinician (Thom et al., 2015). After a visit, a health coach may review the patients' understanding of the care plan. For example, a coach might help a diabetic patient understand and react to his glucose values and discuss a behavior-change action plan (Bennett et al., 2010; Chen et al., 2010). Health coaches also help patients connect to social services available in their community (Sandberg et al., 2014).

Staff providing population health and boundary spanning roles are valued for their cultural competencies, often reflecting the same social, cultural or economic backgrounds as the patients they serve (Garson, Green, Rodriguez, Beech, & Nye, 2012; Rosenthal et al., 2010). CHWs are often recruited from the communities they serve and can help translate health information from providers to patients, using language or cultural contexts that resonate with patients (Martinez et al., 2011; Rosenthal et al., 2010; Sandberg et al., 2014). CHWs also translate information from patients back to the health system by helping patients with tasks such as learning how to measure their blood pressure correctly or document their glucose values from home testing and prepare this documentation for their next health care visit (Halladay et al., 2013).

New Challenges

As the existing workforce has taken on new roles, employers have had to integrate these roles into the existing human resources infrastructure. Job descriptions have to be rewritten or created, workflows reconfigured, and trainings developed to support task shifting and new roles.

Roles have emerged so quickly and there is so much heterogeneity and overlap between and within job titles that it has created confusion as to what different team members' job functions are and how they relate to established roles (Grace, Rich, Chin, & Rodriguez, 2014). Successful integration of new roles into team-based models of care cannot occur unless staff understand their new role and the roles of others involved in the new care delivery process (Dow et al., 2013; Ladden et al., 2013). Existing workflows also need to be redesigned to ensure that workers have the time, training and resources needed to do their new job (Ghorob & Bodenheimer, 2012b). Leading workflow redesign and managing change requires the skills of yet another emerging new role—practice facilitators who can be physicians, nurses or other staff member (Taylor, Machta, Meyers, Genevro, & Peikes, 2013).

Table 2. Shifting focus needed in workforce planning

Traditional Focus		New Focus
Will we have enough health professionals?	→	How we can effectively and efficiently use the workforce already employed in the health system?
What is the "right" skill mix of different types of health professionals needed to provide care?	→	What are patients' needs for care and how can different types of staff meet these needs in different settings and communities?
How do we need to change the curriculum to prepare students in the pipeline to practice in new models of care?	→	How can we retool the 18 million workers already in the workforce since they will be the ones to transform care?
How many health workers do we need to provide visit-based care in hospitals, ambulatory practices and long term care settings?	→	How can we engage in workforce planning from a patient's perspective so that we have the workforce needed to manage care transitions, coordinate care and facilitate communication between patients and providers in health and community-based settings?

The lack of standardized training and limited "off the shelf" training available to retool the workforce creates a significant obstacle to transforming care. Without adequate training, providers do not trust that other health professionals have the skills and competencies to accomplish new roles (Ladden et al., 2013). Some practices have created custom internal training program for team members; others have identified the need for training that can be transferred across practice environments. Finding the time and funding to support training remains a challenge, particularly for health systems operating in a fee-for-service model because staff time spent training is time not spent on providing billable services.

V. Conclusions, Implications for Policy

While front-line delivery systems are actively reengineering staff roles and care processes, the policy structures supporting the workforce have been slower to respond. **Table 2** summarizes how health workforce stakeholders, including the professions and their associations, educators, regulatory bodies, payers, researchers and policy makers need to shift their focus to keep pace with health system transformation.

Implications

Shift from focus on shortages to measuring the demand-capacity mismatch-Researchers disagree about whether the nation will face health workforce shortages in the future (Chen, Mehrotra, & Auerbach, 2014; Erikson, 2013; Salsberg, 2014) but the prevailing narrative suggests that the aging population and increased burden of chronic disease coupled with health insurance expansions will produce shortages (Petterson et al., 2012). Our findings suggest the need to focus less attention on whether we will have a shortage of health professionals and more attention on understanding how we can effectively and efficiently use the workforce

already employed in the health system. As Bodenheimer and Smith have noted, the first step is to redefine the crisis from a shortage to a demand-capacity mismatch that could be addressed if employers reallocated clinical responsibilities (Bodenheimer & Smith, 2013).

The literature reveals that significant efforts are already underway to reallocate clinical tasks. Whether this reallocation will be sufficient to meet patients' health care needs is unclear because current workforce projection methodologies are generally unable to account for task shifting of <u>traditional health care services</u> between different types of health care professionals and task distribution of <u>enhanced health care services</u> such as care coordination, panel management and patient coaching.

Shift focus from provider type to provider role-Across different practices, geographies and patient populations, there is significant heterogeneity in who provides what types of health care services. To capture this fluidity, future models need to move away from specialty-specific and single profession projections. Instead, we need models that capture the roles and content of care provided by different types of providers. As Holmes et al. have suggested, we need to recognize the "plasticity" of health professionals in practice. Instead of asking how many health care professionals of different types will be needed in the future, a plasticity modeling approach starts with a different question: what are patients' needs for care and how can different skill mix configurations of staff meet these needs in different settings and communities (Holmes, Morrison, Pathman, & Fraher, 2013)?

The ability of the workforce to fluidly adjust to new functions in new models of care is constrained by a number of factors, including whether health professionals feel competent to take on new roles and whether they are willing to delegate tasks because they trust that others on the care team have the skills and competencies needed to deliver the service. This finding suggests that while the pace of health system transformation has accelerated, its progress may be hampered by a shortage of appropriately trained workers (Bodenheimer, Chen, & Bennett, 2009; Ghorob & Bodenheimer, 2012b).

Shift focus from training new professionals to retooling existing workforce-Numerous studies describe how health professions curriculum needs to change to prepare students for new models of care (Farrell, Payne, & Heye, 2015; Kaprielian et al., 2013; Kayingo, Kidd, & Warner, 2014), but less is known about the training needed to retool the 18 million workers already in the system who are transforming care (Fraher, Ricketts, Lefebvre, & Newton, 2013). Ongoing health system change will require a workforce with career flexibility. Currently, our education system is lagging in providing ways for the existing workers to retrain for new roles. More explicit, formal linkages are needed between front-line delivery systems and educators (Ricketts & Fraher, 2013). Educators need a better understanding of task shifting and new roles that are emerging if they are going to be responsive to the needs of the health care delivery system. Better linkages are needed between two and four year institutions to promote career laddering and continuing education opportunities so that health professionals can retrain for different settings, services and patients. Retraining opportunities must be convenient in timing and location but a bigger barrier is the lack of funding to support workers to take time off from practice to retrain. Many workforce innovations are supported by

one-time grant funding or are based in closed delivery systems operating under a capitated payment model. The majority of health systems are still operating in a fee-for-service model, which creates an obstacle to retooling the workforce. The literature also highlights the need to focus on interprofessional, team-based models of education and practice so that health professionals understand the content of other team-members' roles, how they overlap with their role and fit into the redesigned workflow (Dow et al., 2013; Ladden et al., 2013).

As health care shifts from expensive inpatient to outpatient and community-based settings, the health workforce will increasingly shift to ambulatory and community-based settings. Yet most training is done in acute, inpatient settings. Physicians, nurses and other health professionals traditionally employed in hospitals will need to retrain to develop the skills needed to practice in ambulatory settings. For example, nurses will be expected to serve as care coordinators, case managers, patient educators, and chronic care specialists (Sockolow, Liao, Chittams, & Bowles, 2012; Spetz, 2014).

Shift from planning for a health workforce to a workforce for health-The rapid emergence of new boundary spanning roles that reach patients in their homes and their communities are attempting to address "upstream" preventive health needs and social determinants of health. To date, the majority of health workforce research and policy is aimed at the traditional workforce providing visit-based care in hospitals, ambulatory practices and long term care settings.

Increasingly, health care staff is providing services designed to keep patients healthy in their homes and communities. There is a growing workforce whose services are not based in just one setting but instead targeted toward managing care transitions, coordinating care and facilitating communication between the patient and providers in different settings. This trend highlights a new challenge—the need to shift from workforce planning for professions to workforce planning for the patient to ensure we meet patients' needs wherever they are in community, ambulatory or acute care settings.

VI. Future Research

This literature synthesis has some important limitations. We did not identify the specific workforce configurations needed for different types of patients, settings, places or payers. Some work has been done estimating the staffing needs of Patient Centered Medical Homes (Patel et al., 2013) and branded configurations exist, such as the Patient Aligned Care Team used by Veterans Health Administration and the Teamlet model of primary care. It was outside the scope of this synthesis to summarize the evidence on the effect of workforce innovations on cost, quality (e.g. patient satisfaction) or panel sizes.

We did not synthesize the literature on interprofessional education and practice as part of this analysis. This is an important subject for future syntheses since a critical element of incorporating new roles into existing teams involves specifying the roles of each staff member and working together to reconfigure workflows to meet patients' health care needs. ❖

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Acknowledgments

Suggested citation