Addressing the Community-Based Geriatric Healthcare Workforce Shortage by Leveraging the Potential of Interprofessional Teams

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As Americans live longer lives, we will see an increased demand for quality healthcare for older adults. Despite the growth in the number of older adults, there will be a decrease in the supply of a primary care physician workforce to provide adequately for their care and health needs. This article reviews the literature that explores ways to address the primary care workforce shortage in a community-based geriatric healthcare setting, with special attention to elevating the role of nurses and caregivers and shifting the way we think about delivery of care and end-of-life conversations and planning. The shift is toward a more integrated and collaborative approach to care where medical and nonmedical, social services, and community providers all play a role. Several models have demonstrated promising positive benefits and outcomes to patients, families, and providers alike. The goal is to provide high quality care that addresses the unique attributes of older adults, especially those with complex conditions, and to focus more on care goals and priorities. The many barriers to scaling and spreading models of care across varied settings include payment structures, lack of education and training among all stakeholders, and, at the top of the list, leadership resistance. We address these barriers and make recommendations for a path forward where healthcare providers, policymakers, patients, families, and everyone else involved can play a role in shaping the workforce caring for older adults. **J Am Geriatr Soc 67:S400–S408, 2019.**

Key words: geriatric workforce; care models; nursing; payment systems; geriatrics training

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As the US population ages in the next decade, the number of older adults will grow to 69 million, with two of every three people coping with multiple chronic conditions.[1] Despite the increased need for primary care, there is an ever-growing gap in the capacity of a knowledgeable and skilled primary care workforce to provide effective and appropriate care.[2]

The goal of this article is to examine the current health workforce and learn ways to strengthen training and support for all involved in the care of older adults living in the community with chronic and complex health conditions. We consider nurses and caregivers essential stakeholders within the continuum of care. This vantage point will provide an underlying framework and implementation strategy for the models of care described here.

To better understand these two stakeholders, we look at the current state of knowledge and policy regarding the community-based geriatric health workforce, examples of practice and education, recommendations that have been made to date, barriers in implementing recommendations, and opportunities to advance progress in the next 2 to 5 years.

CURRENT STATE OF KNOWLEDGE REGARDING THE HEALTH WORKFORCE

To paint a picture of the current state of the community-based health workforce, we review the expanded role of caregivers, practitioner trends, the critical need for nurses at the forefront of care, the case for more geriatrics-based training, and the shift toward collaborative team-based models of care.

Expanded Role of Caregivers

Because of the physical, mental, and cognitive limitations often associated with aging, many older adults rely on caregivers. Most personal healthcare for older adults is provided by family caregivers, with close to 18 million persons identified in this role.[3] The responsibility of family caregivers includes scheduling and accompanying to medical appointments, coordinating care and services, helping with daily

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tasks, and assisting in decision making. A total of 13 million of these family caregivers assist 9 million of the seriously ill older adults.[4] Family caregivers provide billions of hours of unpaid care to these populations annually. A 2015 estimate showed that 15.9 million family and friends provided 18.1 billion hours of unpaid care to those with Alzheimer's and other dementias, an economic value of $221 billion.[4]

Including family caregivers as members of the healthcare team can provide essential capacity to monitor treatment outcomes and to ensure adherence to key treatment goals and measures while also providing needed support. Additionally, because of the personal relationship with the patient, caregivers can often offer information and unique insight critical to providers overseeing the care of older adults. Studies have shown that families involved in patient care have helped improve outcomes in dementia and schizophrenia care.[3] Furthermore, evidence-based programs focused on supporting family caregivers have been shown to result in fewer nursing home admissions and use of acute care services.

In addition to enhancing caregiver skills to meet the needs of older adults with complex health conditions, family members should also be provided with support.[5] Caregivers are at increased risk of both mental and physical health disorders including depression, anxiety disorders, sleep disorders, substance use disorders, and stress-related health conditions such as hypertension, obesity, and cardiovascular disease.[5] Supporting caregivers as a member of the healthcare team both facilitates successful care of the patient with a complex health condition in the community and can potentially prevent healthcare challenges in the family member. Between the economic contribution and their role in improved health outcomes, caregivers play a critical part in the provision of quality care to older adults.

Practitioner Trends

The aging baby-boomer population is affecting the current supply of trained and working healthcare providers. Trends show approximately 8,500 primary care physicians will retire each year, yet only 8,000 new primary care physicians are expected to enter the workforce annually.[6] Projections show a need for more than 44,000 additional primary care physicians by 2035, as a shortage of more than 33,000 physicians is anticipated in that same year.[7] The American Geriatrics Society highlights the specific challenges associated with providing care to older adults. The demand for geriatricians is projected to increase 45% by 2025 with a projected national shortage of almost 27,000 geriatricians.[8,9] Retaining primary care providers is becoming increasingly challenging. Almost half of US physicians experience burnout, with early retirement an attractive option and many choosing to work in "cash-only boutique practices." Increasing attention to diminishing work satisfaction and work-related quality of life has prompted the addition of a fourth aim for improving healthcare. Adding on to the original "Triple aim" (Better Quality, Better Patient Experience, and Lower Costs), the "Quadruple aim" focuses on improving provider work life.[10] The Quadruple aim was proposed by Bodenheimer and Sinsky in an effort to address the prevalent reports of healthcare workforce burnout and dissatisfaction.[10] The stressful work life of clinicians and staff affects the ability to achieve the Triple aim and patient centeredness. Burnout across the workforce has been connected to lower patient satisfaction, overuse of resources, higher costs of care, increased chance of prescribing the wrong medications, lower levels of empathy, and reduced patient outcome and safety.[10] The Quadruple aims to address why it is important to address burnout and create practice conditions that minimize burnout.

While primary care physician numbers are declining, the number of nurse practitioners (NPs) is projected to grow 80% by 2025, accounting for one-third of the future primary care workforce.[7] Certified physician assistants (PAs) are also growing in number. It is anticipated that future primary care NPs will have similar roles as physicians. NPs are deciding to enter the field of primary care more often than physicians. In 2017, more than 87% of NPs were enrolled in primary care programs, whereas only 14.5% of physicians entered a primary care residency.[11] In many practices with team-based models, nurses are already seen as care managers, overseeing healthcare coordination.[7]

Necessity for Nurses

There are 3.7 million registered nurses (RNs), making this the largest discipline of licensed health professionals in the United States. Nurses are therefore well positioned to expand primary care capacity.[12] Many practices with RNs in enhanced roles have shown improved health outcomes, reduced costs, and increased patient satisfaction.[7] Nurses can lead and partner on teams that provide services across the continuum of care (hospitals, ambulatory care, public health, schools, long-term care, and home health). Through frequent interactions with patients, they can develop close relationships and influence care delivery and processes.[12] Additionally, nurses are well equipped to tackle health promotion, disease prevention, disease cure, care coordination, and palliative care. Nurses also are positioned to provide leadership within a variety of healthcare systems and policy settings.[1] The role of RNs has evolved in practices using team-based models of care, with their responsibilities falling under four major themes: (1) managing patients with chronic disease by using established practice protocols, (2) leading complex care management teams to improve overall care and reduce costs for patients with multiple diagnoses who are high users of services, (3) coordinating care between the primary care practice and services, especially related to transitions among hospital, primary care settings, and home, and (4) through a co-visit model, assisting practitioners in conducting acute patient visits for various conditions, including respiratory infections or urinary tract infections.[7]

Numerous studies have shown the positive results of nurse-delivered care on complex health conditions. A 2012 study by Coburn et al revealed that outcomes of community-based nurse care management included a decrease in all-cause mortality among chronically ill older adults participating in fee-for-service Medicare in the United States.[12] Additionally, nurses involved in the longitudinal care of chronically ill older adults can improve the long-term health outcomes of this group.[12] A 2017 National Academy of Medicine report noted that a dedicated care coordinator, most often a nurse, is a critical factor for successful care model implementation.[13] With nurses increasingly filling a more enhanced role in

primary care, consideration should be given to proper training in clinical skills, leadership, collaboration, organizational culture, and change management. Ensuring that nurses receive the proper training will better prepare them to provide services to the older adults whose care they manage and to acknowledge and work through any challenges with practice dynamics. Similarly, all providers should undergo training on managing the dynamics of a team with multiple specialties and to acknowledge shifts in practice that could occur from changes in roles and responsibilities.

Need for More Geriatrics-Based Training

Very few health professionals are trained in geriatrics and less than 5% have any type of licensing for geriatrics care.[12,13] Overall, 4% of social workers, 2.6% of advanced practice registered nurses (APRNs), and less than 1% of RNs, PAs, and pharmacists are certified in geriatrics.[12] Professional education provides limited training in the assessment and treatment of older adults, with little exposure to geriatric populations.[14] It is noted that geriatricians have important skill sets that many other physicians lack: (1) training in age-related physiologic changes and clinical syndromes, (2) training in team-based care and systems of care for older adults, (3) a clinical focus on functional status and holistic approach to managing health, and (4) an emphasis on shared decision making guided by patient goals and preferences.[15] In addition to understanding the physical ailments unique to older adults, it is also important to have the skills and training required to address patient fears and to provide appropriate counseling and care for patients who are dying. Of those who obtain a geriatric medicine fellowship, 97% feel prepared to address issues related to end-of-life care, compared with 41% of family medicine residents and 43% of internal medicine residents.[16] Many providers allow their credentials in geriatric specialties to lapse. Furthermore, few who specialize and are up to date on their geriatrics training are in rural areas.[13] The lack of geriatrics expertise in this setting is a growing concern because older adults are overrepresented and less healthy in rural areas.[14]

Many older adults with mental health/substance abuse conditions and coexisting acute and chronic physical, cognitive, and functional conditions disproportionately live in nursing homes or similar settings (assisted living, senior housing, public housing, etc).[14] For these reasons, geriatrics training customized to living settings is also paramount.[17] The relatively small number of existing healthcare professionals specialized in geriatrics and the unique challenges of caring for older adults with complex health issues mandates the need for a more robust and broader training on geriatrics skills across the health workforce.

University faculty representing a variety of disciplines and community-based providers from Area Agencies on Aging have worked together to address the gaps in training and siloed workforce providing care to older adults through an Interprofessional Curriculum for the Care of Older Adults.[18] This training is community based[18] and serves to address the training gaps seen in the training curriculums for physicians, NPs, PAs, RNs, and many other providers who play a role in the care of older adults.[18] Learners of the curriculum represent the entire spectrum of current and future healthcare professionals including the following:

- Third-year nursing, medical, pharmacy, and dental students as well as master's level social work, dental hygienist, and nurse practitioner students
- Residents in internal medicine, family medicine, and pharmacy
- Law students, community-based organization professionals, practicing community organizers, and community health navigators[18]

The curriculum addresses several knowledge domain areas essential to providing quality and effective care to older adults, including:

- Focusing on interprofessional collaborative practice and conducting physical assessment, care, and evaluation to address geriatric needs
- Providing patient/family-centered care (assessment, care, and evaluation) that addresses the unique psychosocial, spiritual, social, and cultural context and needs of patients within practice areas
- Reviewing and addressing environmental risks and taking those into consideration in the care of older adults
- Providing disease management teaching and coaching to older adults, their caregivers, and families
- Identifying and addressing ethical and legal issues impacting older adults, their caregivers, and families
- Managing and negotiating health delivery systems to provide effective care transition guidance to older adults, their caregivers, and families
- Communicating effectively with patients, families, and colleagues[18]

The knowledge domains introduced in this learning model can be applied across all practitioners—physicians, nurses, social workers, and community workers—and can be used as a basis to enhance existing curriculum specific to each specialty, as it covers the unique needs and challenges related to older adults. The development of the domains, content, and methods were based on a review of numerous quality standards of care including the Geriatric Competency Grid, the National Consensus Project for Quality Palliative Care, standards of care for Geriatric Case Management, Core Competencies for Interprofessional Collaborative Practice, National Quality Strategy's six priorities to focus efforts and accelerate meaningful change, and Partnership for Health in Aging Multidisciplinary Competencies in the Care of Older Adults at the Completion of Entry-Level Health Professional Degree.[18] Thus, a review of the existing curriculum across institutions could be compared to the domains covered within this curriculum to see what gaps may exist and how training can be enhanced to cover such topics.

Shift toward Collaborative Team-Based Models of Care

The priority of a rapidly changing healthcare environment—to provide patient-centered, coordinated, and community-based primary and specialty care services—will increasingly require the collaboration of health professionals.[17] The

comprehensive care of aging individuals requires experts from multiple professions and, thus, the need to form teams.[17] These collaborative teams could include physicians, NPs, PAs, nurses, care managers, dietitians, pharmacists, social workers, mental health professionals, and non-clinical staff such as receptionists, counselors, and community workers.[19] There is a core group of clinical personnel who provide care for patients and additional personnel from other specialties could be added based on the individual needs of the patients.[19] High-functioning healthcare teams have the potential to increase access to care, improve the quality of care for chronic conditions, and reduce burnout among primary care practitioners including physicians, PAs, and NPs.[13] Well-implemented, team-based care can also improve the comprehensiveness, coordination, efficiency, effectiveness, and value of care as well as the satisfaction of patients and providers.[13] The culture shift to team-based care is emerging, with many institutions across the United States testing programs and learning to how best scale and become sustainable. However, without an adequate workforce of trained healthcare professionals, increased demand could undermine and disable this emerging trend.[7]

Geriatric interprofessional team training is also an important model of care that is collaborative and team-based. The University of Virginia had an initiative on interprofessional education, developing and implementing an interprofessional geriatric education workshop where more than 90% of students were better able to describe the necessary communication needed to develop a patient-centered care plan as patients transitioned between clinical sites. Furthermore, 80% of students reported an increased appreciation for interprofessional teamwork.[20] In another study done at the Duke University Geriatric Education Center, a team of professionally-diverse faculty developed an interprofessional course focused on improving transitions of care for older adults. As a result of the course, the students who took the course reported gains in several competencies including teamwork skills, transitions of care, quality improvement, and cultural competence—all important features of successful team-based models of care.[21] Dartmouth has also done work to implement interprofessional team training. Initial results from participating cohorts showed an increase in revenue, improved patient outcomes, and an increase in preventive services delivered through the Annual Wellness Visit.[30] Numerous research efforts have shown the importance of a collaborative and team-based approach in delivering quality healthcare and using geriatric interprofessional team training as the method to achieve the appropriate competence.

CURRENT EXAMPLES OF MODELS OF PRACTICE AND EDUCATION

Many models of practice and education focus on implementing care that involves numerous specialties. Often, these ideological shifts include a focus on prevention as an essential pillar of primary care. Various stakeholders are added into the care process, such as the caregiver and multiple providers. Discussions about dying shift to hope or values that are important for individuals with advanced disease as they transition into a new stage of life. Table 1 highlights a variety of models of care that offer a team-based, patient-centric approach to delivering higher quality care to older adults. These models are included here to illustrate efforts that have put some of the concepts discussed throughout this article into practice. For example, IMPACT, GRACE, and Hospital at Home are all examples of team-based, collaborative models of care delivery that provide improved patient outcomes. The table also highlights key constructs showcased and advocated for here, such as consideration of a fourth aim in the priorities of quality care or the principles of patient-centered care. Both the constructs and models in the table reflect essential priorities and considerations to overcome the workforce shortage and the ideological shifts needed to implement change.

It is also important to be aware of the essential components and types of healthcare professionals involved in each model, as this informs education and training requirements. Across numerous models, nurses, and informal caregivers play a critical role in the planning and delivery of patient care. In Table 1, we briefly summarize key constructs and models with promising implications for addressing the workforce challenge of an aging America with complex healthcare needs.

Determining the right care model requires a combination of research, training, communication, and leadership support. The National Academy of Medicine's 2017 Report on Effective Care for High-Needs Patients includes a framework that can offer guidance on selecting the right model of care to be adopted by an institution.[13] The framework consists of a focus on service setting, developing the appropriate care and condition attributes, ensuring the right delivery features are in place (teamwork, responsiveness, follow-up, etc.), and having a strong organizational culture in support of the relationships, training, metrics, and technologies needed to sustain and scale these efforts.[13,22]

RECOMMENDATIONS MADE TO DATE

Policy

The Geriatrics Workforce Enhancement Program

At an institutional level, healthcare practices and centers across the country are exploring and implementing innovative, local collaborations to address the national geriatrics workforce shortage. In 2015, the Health Resources and Services Administration (HRSA) developed the Geriatrics Workforce Enhancement Program (GWEP) as a comprehensive 3-year initiative to train and increase the number of doctors, nurses, social workers, and other healthcare professionals necessary to address the needs of the aging population.[24] The GWEP funded 44 organizations across 29 states and supported grantees in creating interprofessional geriatrics education and training programs relevant to the specific needs of their communities. Each GWEP strives to improve the quality of healthcare for older Americans by working to:

- Change clinical training environments into integrated geriatrics and primary care delivery systems.
- Train providers who can assess and address the needs of older adults and their families or caregivers at the individual, community, and population levels.
- Deliver community-based programs that will provide older adults, families, and caregivers with the knowledge and skills needed to improve health outcomes and quality of care.[5]

Table 1. Models of Care and Healthcare Constructs, Key Components, Stakeholders Involved, and Benefits

Model or construct name	Components	Key stakeholders and benefits
Quadruple Aim[7]	Shift from Triple aim of healthcare (improve the health of the population, improve patient experience, reduce costs) to a Quadruple aim, addressing the work life of healthcare providers.	Stakeholders: providers, clinicians, staff Benefits: lessen provider burnout and increase effectiveness and efficiency of care offered to older adults
Person- and Family-Centered Care[4]	Address the increasingly important role of the caregiver in the care continuum of patients, especially those with serious illness. Identifying, assessing, and supporting caregivers with tools, training, and communication.	Stakeholders: patients, caregivers, providers Benefits: constant and continual communication critical to effectiveness of care delivery
Reframing Advance Care Planning/End-of-Life Conversations[19]	End-of-life conversations approached as defining goals for living well. Culture change is required to address provider fears and anxieties. Workforce training required for relationship building and normalizing conversations, priorities, and care.	Stakeholders: patients, providers, caregivers, in-home providers, community organizations Benefits: better relationships and communication among stakeholders, promoting self-care practices, normalizing end-of-life stage, empowering patients to be active participants in their goals for living and end-of-life preferences
Advanced Care Planning Group Visit[20]	Engage patients in a discussion on key advance care planning concepts to support actions driven by patient. Can include anything from choosing decision makers, preferences during serious illness, to documenting directives in the electronic health record.	Stakeholders: patients, providers Benefits: University of Colorado Hospital showed higher rates of satisfaction using this model vs usual clinic visits. Patients had more comfort and found the group setting useful when discussing a difficult topic
Patient-Centered Medical Home[10]	A model based on comprehensive care, patient-centered care, coordinated care, accessible services, and commitment to quality. Resources move to primary care settings to reduce downstream costs. Provides opportunities to connect older adults to resources and providers they need, to assess person-specific goals and strategies to meet changing needs, primary care management and patient advocacy, access to community-based, long-term services and supports, care navigation and management, discussion of advance directives for conscious dying, and integration of agencies on aging, independent living centers, and CBOs in helping to access these services.	Stakeholders: patients, providers, community agencies, various care setting service providers Benefits: improved outcomes in utilization rates and cost
Patient-Centered Team-Based Care Model[14]	Emphasizes developing good relationships to "provide the foundation for the development of high-functioning teams and for high-quality patient-centered care; therefore, good relationships are critical to the provision of patient-centered team-based care."	Stakeholders: patients and providers Benefits: improved communication and relationships, trust
IMPACT[10]	A model for older adults who suffer from depression. A primary care physician works with a care manager (usually a nurse, social worker, or psychologist) to create and implement a treatment plan. Care manager also educates patient about depression and self-care. Providers utilize ongoing measurement and tracking of outcomes with validated depression screening tool and adapt care based on changing symptoms. With signs of improvement, the case manager and patient work together to create a plan that prevents relapse.	Stakeholders: patients, physician, care manager (nurse, social worker, psychologist) Benefits: improves well-being and cost outcomes
GRACE[10]	A model for low-income adults with complex health conditions. A support team including an APRN and social worker partner with the older adult in the home and community. Each patient receives an individualized care plan based on an in-home assessment and specific care protocols created. There are also tools for patient education and self-management plans.	Stakeholders: patients, APRN, social worker Benefits: improved utilization and cost

Table 1 (Contd.)

Model or construct name	Components	Key stakeholders and benefits
Hospital at Home[10]	A model for older patients with acute illness who need hospital care. Patients may be identified in the emergency department or ambulatory care departments. If they meet the criteria and consent to participate, a physician evaluates them, and they are transported home. Initially, the patient receives one-on-one nursing, daily nurse, and physician visits and both nurses and physicians are on call 24 hours a day for urgent visits. Some of the diagnostic services and treatments are performed in home settings.	Stakeholders: patients, physician, nurse Benefits: improved outcomes in well-being, utilization rates, and cost
Mind at Home[10]	A home-based model for older adults with memory disorders. Delivered by an interdisciplinary team of non-clinical community workers and mental health clinicians who conduct in-home, dementia-related needs assessments and provide individualized care planning, monitoring, and implementation. Provides education, skills training, and self-management support.	Stakeholders: patients, families, caregivers, community workers, mental health clinicians Benefits: improved outcomes in well-being and utilization
PACE[10]	A model for older adults with functional or cognitive impairments. Comprehensive preventive, primary, acute, long-term care, and social services are provided. Individualized care plans are designed by an interdisciplinary team with the goal of promoting independent living for each patient.	Stakeholders: patients, families, caregivers, providers, social workers Benefits: improved outcomes in well-being and utilization, and cost
Transitional Care Model[15]	A model for hospitalized, high-risk older adults with chronic conditions. Provides discharge planning with 3-month, post-discharge follow-up, including frequent home visits and telephone calls. Both patients and family members are involved in identifying goals and building self-management skills.	Stakeholders: patients, families, caregivers, providers, APRNs Benefits: improved outcomes in well-being, utilization, and cost
Complex Care Management[21]	A model focused on patients accounting for the highest healthcare spending. Primary care is the foundation of this model. This model works most effectively when care managers work in close collaboration with all providers caring for the patients assigned to them, especially behavioral healthcare providers.	Stakeholders: patients, providers, care managers, behavioral health Benefits: improved outcomes and reductions in acute care and cost
CARE Management Plus[22]	A model for older adults with multiple comorbidities, diabetes, frailty, dementia, depression, and other mental health needs. Trained care managers perform person-centered assessments in primary care clinics and work with families and providers to design and act on a care plan. The care manager ensures continuity of care through regular office, home, or phone follow-ups and provides coaching and self-care education to patients and families.	Stakeholders: patients, families, providers, nurses, social workers Benefits: improved well-being and utilization outcomes
Geriatric Interprofessional Team Transformation (GITT-PC)[23]	A model developed for older adults with complex health concerns. Focused on practice systems and culture change through partnerships between health professionals and community service providers. Engages in task reallocation. To support expanded staff roles and maintain sustainability, the model aligns geriatric best practices with four Medicare reimbursable visits including the Annual Wellness Visit, Chronic Care Management, Transitional Care Management, and Advance Care Planning.	Stakeholders: patients, families, nurses, physicians, APRNs, PAs, clinical assistants, social services, community partners Benefits: interprofessional engagement, better communication among teams, improved patient care experience

Abbreviations: APRN, advanced practice registered nurse; CBO, community-based organization; PA, physician assistant.

The proposed interprofessional curriculum included in this review is an initiative done by a GWEP site and many of the initiatives could be used as a best practice basis for developing interprofessional teams across the country.

Practice

Patient-Centered Care Models

Shottenfeld et al notes that successfully adopting a patient-centered team-based care model starts with a "culture of relationship," a commitment across the practice that the patient is at the heart of every aspect of care.[19] Patients should be viewed as active partners in the relationship. The philosophy can be further applied to decision making, human resource policies, communications, and hiring practices.[17]Communication training such as motivational interviewing, active listening, personalized conversations, and engaging in shared decision making with patients is also essential to building a strong patient-provider relationship.[17]

Sustainability

When looking at the sustainability and expansion of care models, strong and consistent leadership is critical for success and technical assistance on leadership and teamwork may help spread interventions. A case study on implementing a care model in California notes that the key factors included an existing record of success with previous innovations, appetite and openness for innovation, existing infrastructure, and top leadership support.[16] Having any combination of those factors is likely to increase the chances of internal leadership alignment, successful adoption, and sustainability.

People

Nurse Practitioner Authority

More effort is needed to advocate for legislation that supports full practice authority for APRNs.[1] If APRNs could practice at full capacity, this could easily address the gap in the country's primary care needs.[1] The Assessing Progress Report concluded that policymakers should use the National Council of State Boards of Nursing's Model Nursing Practice Act and Administrative Rules to remove scope-of-practice barriers.[1] It is also important to note that removing the scope-of-practice barriers is only the first step in allowing APRNs to fill existing healthcare workforce gaps. There are many misconceptions about the roles and responsibilities of APRNs versus physicians.[23] APRNs are able to provide many services, but they do not perform surgeries, diagnose rare diseases, or manage certain complex medical interventions.[23] Nonetheless, they can provide a wide scope of services that would allow physicians to focus on services that are out of the scope of an APRN and require their specialized training.[23] Even with scope-of-practice barriers removed, additional challenges would persist. Institutions will still have the power to decide who will practice on their teams and insurers will still determine who will be reimbursed for various services.[23] In addition to policy changes, additional work must be done to break down misconceptions about the role of the APRN. Institutional issues of who is permitted to do what work and payment structures both present challenges to APRNs aiming to deliver services to the fullest extent of their abilities and practice.

Nurse Training

Training issues can be addressed through continual support of education throughout a nurse's professional lifespan. The Institute of Medicine's "Report on Assessing the Progress of the Future of Nursing" highlights the desire to implement nurse residency programs and increase the number of nurses who pursue undergraduate, postgraduate, and professional learning opportunities.[1]

Task Shifting[17]

Although collaborative team-based care has proven effective in delivering care in the clinic, the use of alternative extended care and allied healthcare providers is essential to scaling the healthcare team into home and community-based settings. Community health workers, social service providers, home health aides, and direct care service workers are essential components of such a team. These individuals are most effective with proper training and can manage systematic screening and monitoring of health outcomes. In rural and underserved urban settings, lay health workers and peers have also been effective in delivering basic outreach and caregiver assistance services.

Increased Diversity

As the patient population across the nation becomes increasingly diverse, healthcare delivery is challenged by an underrepresentation of racial and ethnic minorities, especially African Americans and Hispanics/Latinos. This also holds true for the nursing workforce, despite being more diverse than many other branches of health. In the report on the future of nursing, the lack of diversity is noted as a challenge. A more diverse workforce would better address current and future healthcare needs by providing more culturally relevant care.[1]

Supporting Caregivers[5]

Public, private, and community organizations should provide funding for caregiver training opportunities. Such models could also include programs similar to those developed by the Centers for Medicare and Medicaid Services or the HRSA. Incentives such as tax-exempt status can encourage hospitals to provide caregiver training, which in turn can count toward their "benefit to the community" requirement.

Barriers of Implementing Recommendations

Integrating Team-Based Models of Care into Patient-Centered Care Principles

A significant challenge is providing primary care practices with the structures, processes, and additional support (e.g., training) needed for strong intra-team relationships. Another issue is "relational continuity," which can challenge the recommendations of future care.[25] Some in the field also believe that new approaches to care will focus more on the infrastructure and process-related initiatives than on the skills and

capacities needed to build relationships with patients and other key stakeholders.[25]

Scaling and Sustaining Models of Care

Many care models are unable to move past their initial trial or expand beyond a single site. Barriers include health system fragmentation, high startup costs with uncertain returns on investment, integrating (and paying for) social and other nonmedical services, replicating care models across different settings, workforce training issues, and the need for appropriate quality measures and a data infrastructure to inform those measures.[16]

Payment Structures

Effective models of care offer a wide range of services, such as social services, caregiver education and support, and preventive home visits. Yet Medicare typically does not cover these additional services, even if it reduces hospitalization costs or the use of nursing homes in the longer term. This lack of coverage contributes to the failure of many models to gain widespread traction.[3] Fee-for-service payment, federal, and state reimbursement policies do not adequately cover care coordination and social supports, a major obstacle for care models specific to high-need patients.[26] In some cases, positive patient outcomes is a financial disincentive.[27]

OPPORTUNITIES TO ADVANCE PROGRESS IN THE NEXT 2 TO 5 YEARS

In the next 5 years, there will be a critical demand for a health workforce that can provide quality care for the increasingly older adult population. Several opportunities can advance progress in this area based on the current state of the workforce, training recommendations, and barriers identified in the previous sections. Similar ideas were presented in 2016 by the National Academy of Sciences and warrant further attention and a call to action. These ideas are highlighted further in this section.[28]

Progress can be made in the next 2 to 5 years by increasing the geriatrics training available to healthcare students, professionals, and direct care workers throughout their careers. Additionally, establishing a more prominent role for nurses and caregivers in the care of older adults— with nurses taking the lead on managing care models and providing caregivers with adequate training, education, and support—can mitigate workforce issues and enable smoother transitions in the continuum of care. And finally, at the operational and institutional level, financial incentives should be created to encourage the pursuit of a more interdisciplinary, collaborative approach to care that incorporates fundamental geriatrics principles critical to providing quality care to older adults (Table 2).

FURTHER WORK

This article addresses the primary care workforce in a community-based geriatric healthcare setting. Additional future work should be considered to highlight the gaps in the workforce for geriatric mental healthcare. Because of the importance, prevalence, and unique context of geriatric mental health patients, such work should be addressed on its own. We aimed to highlight the importance of recognizing mental health as a component of overall health, but the focus for this article was primary care. Furthermore, it is important

Table 2. Key Recommendations

Provide education, training, and support to all stakeholders	Provide the necessary resources to educate, train, and support the health workforce that plays a role in the continuum of care for older adults. Include competence in geriatrics as a component for all licensure, certification, and maintenance of healthcare professional certification across all specialties and fields.[3,29] In addition to providers, include residents and stakeholders involved in nursing homes, assisted living facilities, and patients' homes.[28,29] Provide the appropriate training and support to patients, families, and caregivers as key stakeholders and active agents of their own care.
Implement and measure relevant integrated and collaborative models of care	Increase the adoption and implementation of models of care that focus on improving quality of care and health outcomes for older adults. Determine what additional gaps exist in key services such as prevention, long-term care, and palliative care by incorporating key stakeholders who are not medical professionals (caregivers, family, social workers, etc.).[28] Determine the best way to measure the effectiveness of an implemented care model by assessing target patients, service setting, delivery, and desired outcomes and use lessons learned to scale and spread models to other delivery settings.
Modify payment structures	Work with state and federal agencies, private insurers, and health systems to develop a payment structure that incentivizes the use of care models best suited for target populations and service settings.[28] There are some service settings already using a value-based model of payment in addition to or in replacement of the fee-for-service to better adapt to their current care model.
Establish incentives for geriatrics professionals	Develop ways to make the geriatrics field more attractive to potential healthcare professionals. Examples include financial incentives available for educational purposes (loan forgiveness, scholarships, graduate school payments, etc) or at the professional level (enhanced reimbursement for clinical services delivered to older adults by professionals who have a certification or specialize in geriatrics).[28] Work on recruiting and retaining direct care workers by increasing wages, providing more training, and incorporating them into models of care.
Build on existing geriatrics workforce programming	Continue to provide resources and support for initiatives, such as the Geriatric Workforce Enhancement Program, that aim to increase the number of skilled professionals who can address unique challenges and provide quality care to older adults.[29] Use the GWEP program as a network of improvement communities that could bring together people interested in scaling models of care and chart what works and does not work in a variety of settings.[16]

to note that the environment of care also plays a role in how teams are formed; their dynamics and interprofessional needs would differ based on the type of setting discussed. Therefore, further work should be done to compare and contrast the barriers and opportunities to advance geriatric healthcare in those varied settings.

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REFERENCES

1. Altman S, Butler A, Shern L. Assessing Progress on the Institute of Medicine Report: The Future of Nursing. Washington, DC: National Academies Press; 2016.
2. Schreiber R. Patient centered medical homes and the care of older adults. Public Policy Aging Rep. 2018;27:S7-S11.
3. Institute of Medicine. Retooling for an Aging America: Building the Health Care Workforce. Washington, DC: National Academies Press; 2008.
4. Schulz R, Beach SR, Friedman EM, Martsolf GR, Rodakowski J, James AE. Changing structures and processes to support family caregivers of seriously ill patients. J Palliat Med. 2018;21(S2):S36-S42.
5. Committee on Family Caregiving for Older Adults; Board on Health Care Services; Health and Medicine Division; National Academies of Sciences, Engineering, and Medicine. Programs and supports for family caregivers of older adults. In: Schulz R, Eden J, eds. Families Caring for an Aging America. Washington, DC: National Academies Press; 2016.
6. Petterson SM, Winston RL, Tran C, Bazemore AW. Estimating the residency expansion required to avoid projected primary care physician shortages by 2035. Ann Fam Med. 2015;13(2):107-114.
7. Bodenheimer T, Mason D. Registered nurses: Partners in transforming primary care. Paper presented at: Preparing Registered Nurses for Enhanced Roles in Primary Care, Josiah Macy Jr. Foundation; June 20, 2016; New York, NY. https://macyfoundation.org/assets/reports/publications/macy_monograph_nurses_2016_webpdf.pdf. Accessed April 29, 2018.
8. U.S. Department of Health and Human Services, Health Resources and Services Administration Bureau of Health Workforce. National and Regional Projections of Supply and Demand for Geriatricians: 2013-2025. Rockville, MD: DHHS; 2017. https://bhw.hrsa.gov/sites/default/files/bhw/health-workforce-analysis/research/projections/GeriatricsReport51817.pdf. Accessed April 29, 2018.
9. American Geriatrics Society. State of the Geriatrician Workforce. New York, NY: AGS; 2018. https://www.americangeriatrics.org/sites/default/files/inline-files/State%20of%20the%20Geriatrician%20Workforce_10%2001%2018.pdf. Accessed April 29, 2018.
10. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patient requires care of the provider. Ann Fam Med. 2014;12(6):573-576.
11. American Association of Nurse Practitioners. Fact Sheet: Nurse Practitioners. 2018. https://storage.aanp.org/www/documents/about/npgraphic.pdf. Accessed April 29, 2018.
12. Institute of Medicine, Committee on the Robert Wood Johnson Foundation Initiative on the Future of Nursing, at the Institute of Medicine. Transforming practice. The Future of Nursing: Leading Change, Advancing Health. Washington, DC: National Academies Press; 2011.
13. Long P, Abrams M, Milstein A, et al., eds. Effective Care for High-Need Patients: Opportunities for Improving Outcomes, Value, and Health. Washington, DC: National Academy of Medicine; 2017.
14. Bartels SJ, Naslund JA. The underside of the silver tsunami—older adults and mental health care. N Engl J Med. 2013;368:493-496.
15. Cantor MD. We need more geriatricians, not more primary care physicians. NEJM Catalyst. 2017. https://catalyst.nejm.org/need-more-geriatricians-primary-care/. Accessed April 29, 2018.
16. Coburn KD, Marcantonio S, Lazansky R, Keller M, Davis N. Effect of a community-based nursing intervention on mortality in chronically ill older adults: a randomized controlled trial. PLoS Med. 2012;9(7):e1001265.
17. Institute of Medicine. The Mental Health and Substance Use Workforce for Older Adults: In Whose Hands? Washington, DC: National Academies Press; 2012.
18. Schapmire TJ, Head BA, Nash WA, et al. Overcoming barriers to interprofessional education in gerontology: the interprofessional curriculum for the care of older adults. Adv Med Educ Pract. 2018;9:109-118.
19. Schottenfeld L, Petersen D, Peikes D, et al. Creating patient-centered team-based primary care. Agency for Healthcare Research Quality Pub. No. 16-002-EF. Rockville, MD: AHRQ; 2016.
20. Heflin MT, Pinheiro SO, Konrad TR, et al. Design and evaluation of prelicensure interprofessional course on improving care transitions. Gerontol Geriatr Educ. 2013;35(1):41-63.
21. Balogun SA, Rose K, Thomas S, Owen J, Brashers V. Innovative interprofessional geriatric education for medical and nursing students: focus on transitions in care. QJM. 2015;108(6):465-471.
22. Brown RS, Peikes D, Peterson G, Schore J, Razafindrakoto CM. Six features of Medicare coordinated care demonstration programs that cut hospital admissions of high-risk patients. Health Aff. 2012;31(6):1156-1166.
23. Robert Wood Johnson Foundation. The Case for Removing Barriers to APRN Practice. Charting Nursing. 2017; Issue 30. https://www.rwjf.org/content/dam/farm/reports/issue_briefs/2017/rwjf435543. Accessed April 29, 2018.
24. Health Resources and Services Administration. HHS awards $35.7 million to improve care for older adults [press release]. July 13, 2015. https://hrsa.gov/about/news/pressreleases/150713geriatricworkforce.html. Accessed October 2018.
25. Hirschman K, Shaid E, McCauley K, Pauly M, Naylor M. Continuity of care: the transitional care model. Online J Issues Nurs. 2015;20(3).
26. McCarthy D, Ryan J, Klein, S. Models of Care for High-Need, High-Cost Patients: An Evidence Synthesis. The Commonwealth Fund. 2015. https://www.commonwealthfund.org/publications/issue-briefs/2015/oct/models-care-high-need-high-cost-patients-evidence-synthesis. Accessed April 29, 2018.
27. Lum HD, Jones J, Matlock DD, et al. Advance care planning meets group medical visits: the feasibility of promoting conversations. Ann Fam Med. 2016;14(2):125-132. Accessed April 29, 2018.
28. Rowe J, Berkman L, Fried L. Preparing for Better Health and Health Care for an Aging Population. Discussion Paper, Vital Directions for Health and Health Care Series Washington, DC: National Academy of Medicine, 2016. https://nam.edu/wp-content/uploads/2016/09/preparing-for-better-healthand-health-care-for-an-aging-population.pdf. Accessed April 29, 2018.
29. Busby-Whitehead J, Flaherty E, Potter J. The geriatrics workforce enhancement program: a major eldercare initiative. Generations. 2016;40(1):122-124. https://www.questia.com/library/journal/1P3-4092830491/the-geriatrics-workforce-enhancement-program-a-major. Accessed April 29, 2018.
30. Flaherty E, Bartels SJ. Building on geriatric interdisciplinary team training (GITT). In: Fulmer T, Chernoff R, eds. Handbook of Geriatric Assessment. 5th ed. Burlington, MA: Jones & Bartlett; 2018.