Maine Rural Health Research Center Working Paper #54

Integrated Care Management in Rural Communities

May 2014

Eileen Griffin, JD Andrew Coburn, PhD

Muskie School of Public Service University of Southern Maine





Integrated Care Management in Rural Communities

May 2014

Working Paper #54

Eileen Griffin, JD Andrew Coburn, PhD

Maine Rural Health Research Center Muskie School of Public Service University of Southern Maine

This study was funded under a Cooperative Agreement with the federal Office of Rural Health Policy, Health Resources and Services Administration, DHHS (CA#U1CRH03716). The conclusions and opinions expressed in the paper are the authors' and no endorsement by the University of Southern Maine or the sponsor is intended or should be inferred.

Table of Contents

ACRONYMS	i
INTRODUCTION	1
BACKGROUND	2
The Core Elements of Integrated Care Management	3
Organizational Capacity for Integrating Care	7
Barriers to Integrated Care Management	9
ORGANIZATIONAL MODELS FOR INTEGRATING CARE	13
Physician Led Models	14
LTSS Provider Led Models	25
Program of All-Inclusive Care for the Elderly (PACE)	30
Managed Care Organizations	38
ADAPTING INTEGRATED CARE MODELS TO RURAL COMMUNITIES	44
Filling Gaps in Rural Integrated Care Management Capacity	
Lowering the Cost of Rural Integrated Care with Shared Supports	
Targeted versus Population-Based Approaches	
Formal and Informal Relationships among Providers	
DISCUSSION	
POLICY IMPLICATIONS	
REFERENCES	53
LIST OF TABLES	
Table 1. Colorado's Accountable Care Collaborative Model Design	18
Table 2. Colorado Access Integrated Care Management Function	
Table 3. Region 2 Population by County	
Table 4. Overview of Georgia's SOURCE Program	
Table 5. Integrated Care Management Function in the Georgia SOURCE Program	
Table 7. Overview of LIFE Geisinger Program in Kulpmont, Pennsylvania	
Table 8. Integrated Care Management Function in the LIFE Program	
Table 9. Overview of New Mexico's Coordinated Long Term Services (CoLTS) Program	
Table 10. Overview of CoLTS Program Integrated Care Management Function	

ACRONYMS

ACA Affordable Care Act

ACC Accountable Care Collaborative (Colorado)

ACO Accountable Care Organization

AHRQ Agency for Healthcare Research and Quality

CCSP Community Care Services Program (Georgia)

CHIP Children's Health Insurance Program

CMMI Center for Medicare & Medicaid Innovation

CMS Centers for Medicare & Medicaid Services

CoLTS Coordinated Long Term Services (New Mexico)

FQHC Federally Qualified Health Center

HCBS Home and Community-Based Services

HCPF Colorado's Department of Health Care Policy and Financing

HIE Health Information Exchange

HIT Health Information Technology

IDT Inter-Disciplinary Team (PACE)

LIFE Living Independence for the Elderly (Pennsylvania)

LTSS Long Term Services and Supports

MAPCP Multi-Payer Advanced Primary Care Practice

MCO Managed Care Organization

MEDPAC Medicare Payment Advisory Commission

MLTSS Managed Long Term Services and Supports

NCQA National Committee for Quality Assurance

PACE Program of All Inclusive Care for the Elderly (Medicaid & Medicare)

PCCM Primary Care Case Management (Medicaid)

PCMH Patient Centered Medical Home (NCQA) or

Primary Care Medical Home (CMS and AHRQ)

PCMP Primary Care Medical Provider (Colorado)

RCCO Regional Care Collaborative Organization (Colorado)

RUCC Rural-Urban Continuum Code (U.S. Department of Agriculture 2013)

SDAC Statewide Data And Analytics Contractor (Colorado)

SNP Special Needs Plan (Medicare)

SOURCE Service Options Using Resources in a Community Environment (Georgia)

INTRODUCTION

Much of the success of the Affordable Care Act (ACA) depends on the successful reform of health care delivery and payment systems. Recognizing that traditional models often produce fragmented and costly care and poor outcomes for those with the highest needs, the federal government is currently financing over 2,200 reform initiatives aimed at realigning payment incentives, integrating care, and other reforms. The Affordable Care Act appropriated \$10 billion per decade for the Center for Medicare and Medicaid Innovation (CMMI) to spend on developing and testing innovative payment and delivery models.² To date, many of these reforms presuppose the existence of infrastructure and capacity not easily supported in many rural communities, including dedicated care management staffing and health information technology and exchange. With a focus on older adults, the purpose of this paper is to better understand the opportunities and challenges these reform initiatives present for rural communities: How easily can current models for integrating care be adapted to a rural context and culture? How well do they account for gaps and variations in local delivery systems, capacity and infrastructure? Which strategies offer the greatest promise for addressing the needs of rural residents? This paper highlights a number of promising strategies for implementing integrated care in rural communities, recognizing that fulfilling the promise of even the most flexible and adaptive model for integrated care requires an investment in relationship building, workforce, and infrastructure.

Because our focus includes long term services and supports, a significant portion of which are funded under Medicaid, the models reviewed in the paper are all Medicaid-funded programs and, to varying degree, involve coordination or integration with the acute care provided under Medicare.

BACKGROUND

Whether one lives in a rural or urban community, traditional models of care are not well designed to serve older adults with chronic conditions and long term service needs, especially those whose care is complicated by cognitive or social needs that undermine their ability to manage their own care or services. Fragmented and uncoordinated delivery of physical and behavioral health care and long term services and supports (LTSS) often fails to prevent costly and poor outcomes, such as avoidable hospitalizations and unnecessary institutionalization.

For medically or socially vulnerable older adults, improving care management may require crossing disciplines and delivery systems, as well as creating linkages with services and supports well outside the normal boundaries of health care. For example, an older adult's ability to maintain health and live independently might be undermined by cognitive impairment, depression, limited access to transportation, disability, poverty, or other social, functional, and medical issues that make it difficult to comply with a plan of care. Persons accessing Medicaid-funded home and community-based services can have both high medical and supportive service needs;³ coordinating paid and unpaid supportive and in-home services with medical care can help to address some of these barriers and improve care.

Rural residents tend to have many of the social and medical vulnerabilities that make the need for integrated care management critical. Residents of rural communities tend to be older, in poorer health, and are more likely to smoke and are more likely to be obese and sedentary.⁴

People in rural communities tend to be poorer and have less formal education than their urban counterparts. Access to transportation can be a challenge, where travel distances are greater and public transportation options are fewer.

At the same time, integrating care is in many ways harder to achieve in rural communities: access to quality primary care, specialists, hospital care, and related non-medical supportive services is more variable and problems of scale limit the feasibility of investing in needed infrastructure, including health information technology and workforce.

To identify those integrated care models that are best suited to the needs and circumstances of rural communities, this paper begins by examining generally the core elements of integrated care management and the organizational capacity and infrastructure necessary to provide that level of care. With that background, we review different organizational models for integrating care and the application of those models in rural communities with the goal of identifying facilitators and barriers to successful rural implementation. For the purpose of this review, we focus on models that:

- Serve community-dwelling older adults with chronic or complex conditions and an ongoing need for long term services and supports;
- Integrate, at a minimum, physical and behavioral health care with long term services and supports;
- Support an ongoing care management relationship with the patient or service recipient,
 based on the individual's ongoing need for care management services; and
- Have been or are being implemented in rural settings.

The Core Elements of Integrated Care Management

While there is no single, commonly accepted definition of "integrated care" or "integrated care management," there is growing consensus around some of its core elements. For this paper, "integrated care" is defined as "an organizational process of coordination that seeks to achieve

seamless and continuous care, tailored to the patient's needs, and based on a holistic view of the patient." Unlike disease management, which typically applies a disease-specific care regimen to persons with a specific diagnosis, integrated care management programs serve a population group with a wider range of needs, typically persons who are medically and socially vulnerable and those at high-risk for costly, adverse medical events and poor health outcomes. As discussed below, "care coordination" or "case management" is a function falling within the broader scope of integrated care management.

Applied to the needs of persons with chronic and complex conditions, this definition suggests several core elements of "integrated care management:"

Person Centered Care. In contrast to traditional medical care, which tends to be visit-focused, addressing only a discrete set of needs, integrated care management is person-focused and considers a comprehensive set of needs over time, guided by the individual's clinical and personal goals.

A Locus of Responsibility. A single entity has clear accountability for managing the patient's care needs. The locus of responsibility might sit within a managed care organization, within a provider led organization, or another type of entity.

The Scope of Integrated Care Management Services. The scope of integrated care management services comprises two broad categories of functions, one related to clinical care and the other addressing the need for coordination of services across disciplines and delivery systems:

Clinical Care Management: Care management involves the clinical aspects of care including clinical assessments, care planning, health education, self-care instructions, monitoring of clinical parameters, adjusting of medications, and communication with the practice team.

Case Management. Case management involves the coordination of different types of care and services, including health, LTSS, community resources and informal supports. There are three primary steps in case management. The first step, assessment and planning, involves identifying all important problems and goals and developing a comprehensive and practical plan for addressing these goals. The second step, implementation and delivery, requires communication and coordination across providers, patient education, and follow-up. Finally, reassessment and adjustment requires periodic contact with the patient to monitor progress toward goals and identify problems and make changes to the plan where needed.

A Care Manager. A designated care manager has a supervisory role in coordinating care in an ongoing relationship with the patient or client. The credentials of a care manager can vary across the different models of integrated care management. Depending on the model, a care manager might be housed within a single primary care practice or work with multiple physician practices. Physicians are often identified as accountable for care management and care management is usually considered an integral component of the care a physician provides. However, here we focus on care management and coordination activities that exceed the traditional bounds of care management provided by a physician.

A Care Team. Persons with chronic and complex needs have needs crossing multiple disciplines and can benefit from coordination across a multi-disciplinary team. The credentials and qualifications of the care team will vary with the needs of the individual served. The relationships among the providers on the care team can also vary. In a highly integrated model, the providers might all be employees within the same organization, or contractually linked across several organizations. At the other end of the spectrum, members of the care team might have only an informal relationship to each other, cooperating as caregivers to the same individual. Not all care management models have a formal care team and not all payment models reimburse for coordinated care across a care team. Care management may be most effective when the care manager is embedded in the care team.

Comprehensive Scope of Managed Services. The scope of services managed can vary across models. Care might be integrated across care settings or across a range of disciplines. For persons with complex care needs, in addition to meeting physical and mental health care needs, the scope of managed and coordinated services has to encompass LTSS and including income supports, nutritional programs, subsidized housing, or other social supports. Missing social supports can often be a barrier to successful implementation of a care plan. Whether due to poverty or disability, a lack of transportation, housing, or proper nutrition can undermine a care plan that requires refrigerated medicine, regular appointments and good health. A cognitive impairment can limit one's ability to independently keep appointments, manage medications, or comply with dietary or other restrictions.

The Intensity or Nature of the Care Management Service. Again, models vary when it comes to the frequency and nature of contact with the individual receiving care. Contact might be by phone, in-person, or electronic; in-person contact might involve home-visits. There is evidence that frequent contact, greater contact time, and face-to-face visits produce better outcomes for persons with a higher level of service needs.⁸

Together these elements assume a comprehensive and purposeful approach, with dedicated staffing and defined processes, and a reorientation of providers' relationships, both to those they serve and to each other.

Organizational Capacity for Integrating Care

Models of integrated care management designed to systematically address the needs of a population are built on an organizational infrastructure and capacity with an inherent bias toward larger organizations and supportive resources, including health information technology.

Care Management. There is some evidence that care management is more successful when supported by training, guidelines, protocols, and scripts to guide clinical management specifically tailored to targeted outcomes.⁸

Health Information Technology (HIT). HIT supports integrated care management in a variety of ways. Electronic health records and health information exchange (HIE) can support integrated care where the electronic health record and HIE are integrated across multiple points of care. HIT and HIE can also support evidence-based decision-making at the point of care. On an aggregate level, analyzing service cost and utilization data can be used to stratify a population to identify who will benefit the most from integrated care management, as a means of allocating resources to their best use. Provider performance reports enable providers to monitor and

improve their performance, increasing their ability to manage care and accept financial risk associated with risk-based payment models or benefit from shared savings.

Provider Relationships. Formal legal relationships, whether contractual or through common ownership, can facilitate integrated care where, for example, protocols and systems for sharing client information are needed, or where the goal is to hold multiple providers accountable for health outcomes and the cost of care. An organization is better positioned to accept responsibility for the quality and cost of care across multiple points of care when the organization has a means of influencing provider collaboration and performance across those points of care. Organizational relationships might be informal and collaborative, but informal relationships across provider organizations are less likely to incent person-centered care or hold providers accountable for person-centered outcomes.

Provider Capacity and Alignment of Incentives. Integrated care management is most effective when payment incentives are aligned with desired outcomes of integrated care management. Traditional reimbursement models have rewarded quantity of care, not quality. Payment reform has introduced a wide range of payment models to support or encourage better, more person centered care and care management, all premised on the availability of data and data analytic support for measuring and monitoring provider performance and the provider's capacity to use and apply the data. Most of these models can be grouped into one of two broad categories:

A Modified Fee-For-Service Model: A provider responsible for integrating care might be paid on a fee-for-service basis, with additional components including a per member, per month fee for the cost of integrated care management, possibly with an additional

incentive payment for achievement of certain structure and process milestones or other desired behaviors or outcomes; or a shared savings payment, in which payment is adjusted depending on whether the cost of services increased or decreased relative to some baseline. Shared savings payments are typically conditioned on measures of quality, to minimize the risk that reduced cost of care results from denial of needed care.

A Risk-Based Model: In the context of provider-led integrated care management, a provider might accept a capped payment to provide a certain level of care, taking on the risk that the cost of care exceeds the payment. The scope of the payment might be a global payment for all or some of the service needs for a specific population over a specific period of time, or a bundled payment for all of the services related to a particular episode of care, a specific medical condition, or procedure. A two-sided shared savings model, where the provider shared in losses as well as savings, would also be grouped here.

The degree of organizational integration and the size of the provider organization bear on the degree to which it can integrate care across providers and settings, and the degree to which it can be held accountable for health outcomes or incur risk.¹²

Barriers to Integrated Care Management

Many of the common barriers to integrated care management are present in both urban and rural settings. For example, developing the needed organizational, administrative, and clinical systems requires an upfront investment of resources not always available in either urban or rural settings.¹³ Cultural barriers among providers often impede care coordination, with providers resisting information sharing and coordinated care planning. In some cases the cultural divide

might be between, for example, a specialist based in an urban tertiary care center and a rural primary care provider. In other cases, the divide might be between the medical model of care and the social models often associated with the LTSS delivery system, with LTSS providers placing a higher value on a client's goals for independence and quality of life and medical providers emphasizing health outcomes and compliance with care plans.

Older adults eligible for both Medicare and Medicaid face their own set of challenges. Persons who are dually eligible are often among the most medically and socially vulnerable, needing the most integration and coordination across providers: dual eligibles are more likely to have chronic illness or disability and are more likely to be low income, have relatively low levels of education and family and community support. Instead, with their benefits split across two payers, there is an inherent barrier to coordination. For example, Medicaid programs typically have little or no information about Medicare services provided to their beneficiaries, making it difficult to manage their overall care. Payment policies across these two programs can incent poor care. For example, an LTSS provider reimbursed under Medicaid might have an incentive to hospitalize or rehospitalize a beneficiary, if the beneficiary returns to that provider's care at a higher rate of reimbursement for Medicare-funded short term rehabilitation services. Because the cost of care is shared across the two programs, the state Medicaid program has little financial incentive to invest in reducing avoidable hospitalizations; the result is avoidable poor quality of care and higher overall costs.

Barriers to integrated care management are often more pronounced in rural areas. Rural providers tend to be smaller with fewer patients or clients. While smaller practice size can make

a care management program more manageable,¹⁵ smaller practices are also less likely to have a critical mass of patients with similar complex needs to justify an investment in resources and capacity to develop the relevant expertise and capacity to serve persons with complex needs.⁷ Small primary care practices are less likely to have the capacity and infrastructure needed for National Committee for Quality Assurance (NCQA) recognition as a Patient Centered Medical Home (PCMH),* a specific model of enhanced primary care practice.¹⁶ A 2011 study of 29 rural primary care practices found that they provided, on average, 32 percent of optimal PCMH processes and services.¹⁷

Rural residents are more likely to have a usual source of care, ¹⁸ and a smaller pool of providers in rural areas may make it easier to develop informal collaborative relationships. ¹³ At the same time, economies of scale make it more difficult for rural providers to dedicate resources to integrating care across the health and LTSS delivery systems. In addition, a smaller pool of providers means less competition, making it easier for a single essential provider to resist engagement and potentially obstruct successful collaboration among providers in a community. ¹⁵ Greater distances between providers can mean fewer opportunities for face-to-face collaboration to support these partnerships, while increasing the importance of HIT and telemedicine to support communication and collaboration over distances.

^{*}The "medical home" has a number of names. NCQA uses "Patient Centered Medical Home" to refer to it recognition program for the medical home. The Centers for Medicare & Medicaid Services, Agency for Healthcare Research and Quality and the Joint Commission have all used "Primary Care Medical Home" to describe particular models for medical home. Other terms include advanced primary care and enhanced primary care. In this document PCMH is used for both Patient Centered Medical Home and Primary Care Medical Home, as the context indicates.

Rural communities are also more likely to have service gaps. Historically, populations living in rural areas tend to have poorer access to home and community-based services than those living in urban areas. ¹³ In addition, shortages of primary care physicians and limited access to specialists in rural areas are seen as a barrier to implementing medical homes in rural areas. Rural residents often look to urban centers for tertiary hospital care and specialist care, creating additional challenges to care coordination when a resident returns home to the care of local rural providers.

Introducing payment reform in rural areas can also be challenging. Rural providers are less likely to have the resources to manage and monitor their own performance, making it harder to participate in performance-based payment models or less attractive partners in provider networks. There is growing evidence that more organized relationships among providers are associated with higher quality and that integrated provider relationships also influence quality. ¹² Initiatives to reduce hospital utilization can threaten the financial well-being of small rural hospitals in the absence of other strategies for maintaining local capacity. Managed care organizations and providers are less likely to assume risk for smaller populations, since there are fewer covered lives over which risk can be distributed. They also face greater challenges constructing a provider network in rural areas. ¹⁹ Introducing managed care in rural areas can be disruptive to long-established patient-provider relationships and referral patterns; ²⁰ and managed care organizations can threaten rural health delivery systems with selective contracting that omits local providers. ¹⁵

ORGANIZATIONAL MODELS FOR INTEGRATING CARE

There are a number of organizational models designed to support integrated care. Provider-led models are most often physician led, resting on a continuum of increasingly more integrated models ranging from the single PCMH on one end to an integrated delivery system on the other. Other provider-led models look to LTSS delivery system or other types of providers to take the lead for integrating care. Still others rely on managed care organizations or other entities to integrate care across delivery systems.

These models use different strategies for implementing the integrated care management function and providing the organizational capacity to support it. Depending on the model, there may be a different emphasis on integrating funding streams, provider relationships, and the delivery of care. The viability and success of these different strategies are tied to the environment in which they operate, with diverse environments presenting different facilitators and barriers.

This section reviews four types of organizational models:

- Physician Led Models;
- LTSS Provider Led Models;
- Rural Program of All Inclusive Care for the Elderly (PACE) Programs; and
- Managed Long Term Services and Supports (MLTSS).

Within each category, we review models currently operating in rural communities and then examine the contours of a specific program, describing the model design, the integrated care management function, the rural context, and the issues and challenges related to rural implementation. Because our focus includes long term services and supports, a significant portion of which are funded under Medicaid, these programs are all Medicaid-funded programs

and, to varying degree, involve coordination or integration with the acute care provided under Medicare.

Physician Led Models

The primary care practice is at the center of many initiatives to improve patient care. The PCMH, for example, is a model of enhanced primary care practice that defines specific standards (*e.g.*, quality and safety activities), orientation (*e.g.*, whole-person) and services (*e.g.*, coordinated or integrated care). NCQA has launched a voluntary recognition program offering three levels of recognition for the PCMH; by the end of 2010, 1,506 primary care practices had NCQA recognition.²¹ NCQA's recognition standards reflect a partial convergence of two reform agendas, one to improve the traditional attributes of primary care practices and the second, the Chronic Care Model, which emphasizes the redesign of the primary care practice to serve the needs of persons with chronic conditions.²² With funding under the ACA, CMS is promoting the PCMH model through, for example, a demonstration involving nearly 500 Federally Qualified Health Centers²³ and the Multi-Payer Advanced Primary Care Practice (MAPCP) demonstration, which involves a collaboration among CMS, state Medicaid programs, and private payers in eight states.

CMS describes a continuum of integrated care models that build upon the primary care practice with progressively greater integration and a wider scope of responsibility:²⁴

The Primary Care Medical Home: The primary care medical home is responsible for referral management, care coordination, care management, using a care plan, clinical data management, quality reporting and other functions. Payment includes a per member, per

month fee for performing these functions as well as incentive payments for performance on process and outcome based measures. Practice supports, discussed below, are often necessary to support implementation of this model.

The Network Supported Primary Care Medical Home: Including a physician group or a network, collaborative, or another organization comprising individual practices, this model supports all of the PCMH functions in addition to providing practice supports such as staff training, promoting health promotion, quality management, practice support, promotion of evidence-based practice, supporting infrastructure for quality and cost measurement, and supporting coordinated care.

Accountable Care Organizations (ACO): Typically associated with Medicare or the private health insurance market, ACOs are provider-run organizations in which providers are collectively responsible for the care of the enrolled or assigned population and share in any savings associated with providing better, more cost effective care.²⁵ ACOs can vary in structure, but typically are provider led and have accountability for patient outcomes. The potential for shared savings is key to the ACO model.

Recognizing the potential benefit for beneficiaries, a number of state Medicaid programs supplement the capacity of smaller practices by investing in shared support networks that can "wraparound" the primary care practice not equipped on its own to address the complex range of needs of certain high-risk patients or patients with chronic conditions. These networks, which have been characterized as a "public utility" meriting the investment of public resources, ¹⁰ can help under-resourced providers improve care and care management. These shared support networks can offer a virtual or real network of providers that can be shared across practices.

Shared supports might include shared care coordination services; shared clinical expertise in, for example, behavioral health or nutrition; and shared expertise supporting practice improvement, including shared data analysis capacity, quality improvement methods, or performance measurement.

A number of states have implemented a medical home model with a shared support network in rural communities. For example, North Carolina's Community Care network has a long history of providing wraparound capacity to primary care practices. The community networks are local associations of health professionals and community-based support service providers. The community networks enable small and medium practices to share resources, including care managers. North Carolina has also created a statewide nonprofit that provides training, information services, technical assistance, and pilot program management and communications. Similarly, Vermont's Blueprint for Health builds on a Multi-Payer Advanced Primary Care Practice with Community Health Teams (CHT) and HIT to support service integration. The CHT is responsible for linking participants with social and economic support services, extending the resources available to the primary care practice. Maine and Colorado area also included in this group. Maine also has a Multi-Payer Advanced Primary Care Practice initiative and has implemented Community Care Teams. Colorado has implemented an Accountable Care Collaborative initiative that involves Regional Care Collaborative Organizations providing care management supports to primary care practices.

While these models focus primarily on improving the management and coordination of physical and behavioral health services, some have used the support networks to link medical care with

LTSS and social services. Several of the demonstrations proposed under CMS' State

Demonstration to Integrate Care for Dual Eligible Individuals have expanded on this concept, including North Carolina and Colorado.

The Physician-Led Model: Colorado's Accountable Care Collaborative

Launched in 2011, Colorado's Accountable Care Collaborative (ACC) provides an example of a

newly implemented physician-led model. Implemented by Colorado's Department of Health

Care Policy and Financing (HCPF), the ACC initiative has three core elements: primary care

medical providers (PCMPs), seven regional care collaborative organizations (RCCOs), and a

statewide data and analytics contractor (SDAC). Colorado describes its ACC program as a

hybrid model, modifying the Medicaid program's primary care case management (PCCM)

features to incorporate the features of accountable care models. See Table 1 for an overview of
the attributes of Colorado's ACC model.

The ACC operates within the Medicaid program's existing fee-for-service system. Colorado also operates a voluntary managed care program; beneficiaries who choose to participate in the managed care program are excluded from participating in the ACC program. Colorado sees the ACC model as distinct from managed care because it invests directly in community infrastructure to support care teams and coordination. Colorado sees this investment as necessary for local community providers to take responsibility for improving client health and reducing avoidable health care costs.

The core features of Colorado's Accountable Care Collaborative are described in Table 1.

Table 1. Colorado's Accountable Care Collaborative Model Design²⁶⁻²⁸

Geographic Area	Colorado has implemented the Accountable Care Collaborative (ACC) statewide, dividing the state into seven regions and selecting a regional care collaborative organization (RCCO) to serve in each region. The RCCO was responsible for phasing in implementation, starting with a "focus community" in the first phase and expanding to the remainder of the region in the second phase. Of Colorado's 64 counties, 41 have a Rural Urban Continuum Codes (RUCC) of six or higher. ^{29†}
Target Population	All members of Colorado's Medicaid population will be eligible for enrollment. Colorado chose to exclude certain populations during the early phases of implementation including persons dually eligible for Medicare and Medicaid, persons covered under a Medicaid managed care plan, persons residing outside the RCCO's "focus community," and persons residing in a nursing facility in the last three months.
Locus of Responsibility	The primary care medical provider (PCMP) serves as the medical home for the member and is responsible for decisions about the member's treatment and health care, but coordinates with the RCCO on care coordination and case management. The PCMP also participates in performance and quality improvement activities, and sharing data with the RCCO. A qualified PCMP may assume responsibility for care coordination upon approval by the RCCO. A PCMP may be a Federally Qualified Health Center (FQHC), Rural Health Clinic (RHC) or a clinic or other group practice with a focus on primary care, general practice, internal medicine, pediatrics, geriatrics, or obstetrics and gynecology. Within a group practice, individual PCMPs are either a physician, advanced practice nurse or physician assistant, with a focus on primary care, general practice, internal medicine, pediatrics, geriatrics, or obstetrics and gynecology. The RCCO provides care coordination for medically and behaviorally complex clients; care coordination; and provider support including assistance with referrals, clinical performance and practice improvement and redesign. The RCCO may delegate the care coordination function to a qualified PCMP. The RCCOs were selected through competitive bidding and must comply with federal regulations governing the requirements for a primary care case manager operating within the Medicaid

Metropolitan Counties*

- 1 Counties in metro areas of 1 million population or more
- 2 Counties in metro areas of 250,000 to 1 million population
- 3 Counties in metro areas of fewer than 250,000 population

Nonmetropolitan Counties

- 4 Urban population of 20,000 or more, adjacent to a metro area
- 5 Urban population of 20,000 or more, not adjacent to a metro area
- 6 Urban population of 2,500 to 19,999, adjacent to a metro area
- 7 Urban population of 2,500 to 19,999, not adjacent to a metro area
- 8 Completely rural or less than 2,500 urban population, adjacent to a metro area
- 9 Completely rural or less than 2,500 urban population, not adjacent to a metro area

[†] The U.S. Department of Agriculture's 2013 Rural-Urban Continuum Codes classify counties by the population size of the metropolitan area and nonmetropolitan counties by degree of urbanization and adjacency to a metropolitan area, as follows:

program. The Statewide Data and Analytics Contractor (SDAC) provides clinically actionable claims data to the RCCOs and the PCMPs. The SDAC provides individual member profiles based on predictive modeling, identifies areas for clinical process improvement, and provides aggregate reporting of cost and utilization performance indicators. Scope of The RCCO is responsible for ensuring that physical, behavioral, long-term care, social, and other Services services are coordinated. Colorado's Medicaid program covers a range of home and community-Integrated based waiver services. For persons who are elderly, blind or disabled, waiver services include adult day services, consumer-directed personal assistance, personal care services, homemaker services, in-home support services, respite, non-medical transportation services, home modifications, alternative care facility services, community transition services, and personal emergency response systems. Members receive behavioral health services through behavioral health managed care plans, operating under separate contracts, and the RCCO is expected to work with these organizations to integrate physical and behavioral health care needs. The RCCO is expected to develop a knowledge base of care providers, case management agencies, and available services, both within the network and in the community; become familiar with all Department initiatives and programs; know the eligibility criteria and contact points for each community-based service available to members in the RCCO's area; and identify and address barriers to health in the region (for example, transportation issues or medication management challenges). The RCCO connects Medicaid participants to providers and helps participants find community and social services in their area. Organizational Colorado's Medicaid program defines the provider network to automatically include all Medicaid Relationships providers in the state, including long term services and support providers. The RCCO must have a contract with the PCMPs serving its region. While the RCCO is responsible for creating a virtual network including other Medicaid providers including specialists and ancillary providers, these are informal relationships without contracts. The RCCO is responsible for acting as an "integrator," by developing relationships among providers in a region, bringing together disparate provider types and leveraging community resources to efficiently serve and improve the health of members. For some populations, the patterns and providers of care will differ, including those with LTSS needs. Members continue to receive behavioral health services through the behavioral health managed care plans, and the RCCO is responsible for working with these organizations to integrate physical and behavioral health care needs. Members may obtain other medical services with a referral from their PCMP, which helps the medical home remain aware of the member's condition and access treatment records from those providers. Practice Colorado Access provides 40 to 80 hours of education to PCMPs on how the ACC program Supports works. In addition, practices receive performance reports on their own performance; assistance with connecting beneficiaries with behavioral health and LTSS providers; and training and member education resources. Payment Colorado pays a per member per month (PMPM) with the fee split across the PCMP, the RCCO, Model and the SDAC. In the initial phase the state also paid an incentive payment based on the RCCO's performance. In the expansion phase, Colorado has introduced the additional shared savings incentive. When the RCCO delegates the care coordination function to the PCMP, the fee for care coordination is also delegated from the RCCO to the PCMP.

The Integrated Care Management Function. The RCCO is responsible for assessing existing care coordination services, filling in the gaps, and clarifying roles and responsibilities. The RCCO is accountable for the effective delivery of care coordination and provides care coordination not provided by others, essentially providing "wraparound" care coordination to fill gaps in the existing delivery system.

The RCCO performs these care management functions:

- Assessments: the RCCO performs outreach to enrolled Medicaid beneficiaries to administer Health Risk Assessments (HRAs) that determine whether the participant requires monitoring, moderate assistance, or a more intensive level of care management.
- Routine and Intensive Care Management: the RCCO conducts individual assessments, develops individualized care plans, assists with access to care, and provides service coordination for medical and non-medical services.
- Transition of Care: the RCCO provides assistance with care transitions across settings (e.g., from a hospital to a home and community-based setting) or across programs (e.g., from children's services to adult).

Under certain conditions the RCCO may delegate these care management functions to a qualified PCMP. Table 2 provides an overview of the design of the integrated care management function as described by Colorado Access, a nonprofit health plan that also operates as an RCCO.

Table 2. Colorado Access Integrated Care Management Function²⁶⁻²⁸

Care Manager	Colorado Access' care managers have a range of qualifications and may include RNs, LPNs, LCSWs, and persons with BAs in psychology or sociology who have social worker experience. The care manager is a Colorado Access employee, except when care management has been delegated to the PCMP.
Care Team	The care manager presents individual cases to an Inter-disciplinary Team (IDT). The IDT comprises a physician, a psychiatrist, a pharmacist, and a social worker.
Range of Management or Coordination Services	Colorado defines comprehensive care coordination to include: assessing and care planning, identifying and linking with services, assisting with care transitions, documenting and communicating information about the member's care, monitoring and problem-solving, and evaluating and adjusting plans.
	Colorado Access conducts its assessment by phone or by mail. The assessment includes non-clinical needs and the care plan developed is not limited to health care services.
Duration & Intensity of Integrated Care Management	The intensity of integrated care management depends on the members' identified level of need. For the majority of members, Colorado Access conducts surveillance by reviewing claims data to identify persons potentially needing a higher level of care; Colorado Access also assists with care transitions as necessary. Colorado Access provides routine care management for a smaller group and intensive care management for an even smaller high risk or high cost group.

Coordination with LTSS. The RCCO's responsibility for integrated care management intersects with the role of Colorado's Single Entry Points (SEPs) for LTSS. In Colorado, 23 SEPs have regional responsibility for determining functional need for LTSS, facilitating access to services, providing support for clients transitioning across settings, and providing other client support as needed.

The relationship between the RCCO and the SEP is still evolving with the early implementation of the ACC initiative. While the RCCO has a contract with each PCMP, there is no direct contractual relationship between the RCCO and SEP. Instead, the HCPF has led an effort to develop protocols governing the roles and responsibilities of the RCCO and the SEP. A draft document dated November 1, 2012 describes a framework for coordination between the RCCO and SEP.³⁰ On a monthly basis the SEP and the RCCO are to identify and prioritize shared

clients; the two organizations must determine which organization is to have primary responsibility for care coordination activities for the top tier of common clients. The protocols have only recently been implemented. However, some stakeholders have expressed concerns that the protocol will reinforce the "medical model" over the "social model" approach used in the LTSS delivery system.

Colorado's proposed demonstration for integrating care for persons dually eligible for Medicare and Medicaid depends on the successful development of positive collaborative relationships among the RCCO and the SEPs. With enrollment of persons who are dually eligible, Colorado anticipates the number of ACC participants who receive LTSS will increase significantly. In its proposal to CMS, HCPF raised the possibility of amending contracts to improve communication and collaboration among the RCCO and LTSS providers.

Rural Implementation in Region 2. Region 2 is one of the rural regions served by an RCCO. Region 2 serves 10 rural counties located in the northeastern corner of Colorado. Of the 10 counties, Weld County is the most populous and the city of Greeley, located in the west central part of Weld County, contains almost half of the county's population. Most of the remaining population resides within a 20- to 30-mile radius of Greeley. (Table 3 identifies the population density and rural-urban classification of each of these regions, based on the U.S. Department of Agriculture's 2013 RUCC.) Region 2 comprises seven percent of Colorado's population and eight percent of its Medicaid population.³¹

Table 3. Region 2 Population by County^{29,32}

Region 2 Counties	Total Population	Average Population per Square Mile (2010)		USDA Rural Urban Classification (2013)
Weld	252,825	63.4	2	Metro - Counties in metro areas of 250,000 to 1 million population
Morgan	28,159	22.0	6	Nonmetro - Urban population of 2,500 to 19,999, adjacent to a metro area
Kit Carson	8,270	3.8	7	Nonmetro - Urban population of 2,500 to
Logan	22,709	12.4	7	19,999, not adjacent to a metro area
Yuma	10,043	4.2	7	
Lincoln	5,467	2.1	8	Nonmetro - Completely rural or less than 2,500 urban population, adjacent to a metro area
Cheyenne	1,836	1.0	9	Nonmetro - Completely rural or less than 2,500
Phillips	4,442	6.5	9	urban population, not adjacent to a metro area
Sedgwick	2,379	4.3	9	
Washington	4,814	1.9	9	

Colorado Access was selected to serve as an RCCO in Region 2 and two other adjacent, more urban regions, Region 3 (Adams, Arapahoe, and Douglas counties) and Region 5 (Denver). Colorado Access is a nonprofit health plan that also operates a managed care program for Colorado's Children Health Insurance Program (CHIP), offers a range of Medicare managed care plans, and provides behavioral health care to Medicaid recipients. Because of its other lines of business, Colorado Access already had some of the capacity and infrastructure necessary for its role as the RCCO.

During the first year, the RCCOs were to concentrate in a "focus community." The RCCO was to enroll 8,600 during the initial year with the expectation that the RCCO would scale up to accommodate 5 to 14 times that in the expansion phase. Initial implementation did not go as

originally planned. In focus groups conducted prior to launching the ACC, Colorado's HCPF was asked to be cautious about enrolling beneficiaries, to avoid disrupting beneficiaries' relationship with their primary care physician. To this end, HCPF used a conservative algorithm for attributing a particular beneficiary to a particular primary care practice and beneficiaries were only enrolled in the ACC program after their identified primary care practice came under contract with the RCCO to serve as a PCMP. As a result initial enrollment targets could not be met.

In Region 2, Colorado Access selected Greeley as its "focus community," planning to use the initial year to strengthen provider collaboration in the focus community. However, because initial enrollment targets could not be met, Colorado Access had to expand implementation to the rural counties in Region 2 much more quickly than originally planned.

Colorado Access reports that implementing the ACC model in rural areas has required an understanding of rural culture and a heavy investment in relationship building. In the case of rural communities in Region 2, Colorado Access has found a strong tradition of independence and a strong preference for local control; many residents and community leaders are not inclined to seek or accept help from those outside their community. Expanding the ACC program in rural communities required building a level of trust developed by meeting with community leaders, including hospital boards and local providers, to respond to questions and concerns and explain the opportunities provided by the ACC program.

Colorado Access reports that it is inclined to delegate the care management function whenever possible in order to keep the care coordination function closer to the point of care. It has found

that FQHCs tend to have the needed care management capacity and has delegated the care management to some of the FQHCs in its provider network.

LTSS Provider Led Models

Some integrated care models place accountability for integrating care with an LTSS provider rather than a medical provider. The LTSS provider might be a case manager, a home care agency, or an area agency on aging. For example, when Vermont applied to participate in CMS' demonstration to integrate care for persons dually eligible for Medicare and Medicaid, it proposed contracting with Integrated Care Providers (ICP) to provide enhanced care coordination for dually eligible beneficiaries with complex needs. As designed, the ICP would be selected through a procurement process; eligible applicants might include mental health, substance abuse, developmental, or long term care service providers, or specialized care coordination programs. The ICP would serve as a single point of contact across all service needs and would be responsible for developing a comprehensive service plan and coordinating services across the service spectrum. Each participating beneficiary would select an advanced primary care practice medical, developed under Vermont's Blueprint for Health, and an ICP, with each assuming a different level of responsibility depending on the individual's needs. Vermont would implement a triage protocol to ensure seamless care across the medical home, Vermont's community health team,[‡] and the ICP.

[‡] Vermont's community health team is a multi-disciplinary, locally based team that works closely with the medical home to effectively expand its capacity to provide an enhanced range of services.

Under the ACA, the Medicaid "health home" provisions provide states with another option for integrating care for beneficiaries with certain qualifying chronic conditions. The "health home" can look similar to a PCMH, although health homes are responsible for coordinating a broader set of services, including behavioral health and LTSS, to a targeted, high need populations. However, states also have the option to base the health home with other types of providers including specialty clinics, FQHCs, community mental health centers, and home health agencies. The health home focuses on a specific category of Medicaid beneficiaries: eligibility is limited to persons with at least two chronic conditions; persons with a chronic condition and at risk of having a second chronic condition; or persons with a serious and persistent mental health condition. A "chronic condition" is defined to include a mental health condition, a substance use disorder, asthma, diabetes, heart disease, or being overweight, as evidenced by having a Body Mass Index (BMI) greater than 25. Most states electing to implement a health home are basing the health home in a primary care practice, an FQHC, or a community mental health center. To date, of the 11 health home state plan amendments approved by CMS, only Idaho and New York have elected to allow home health agencies to serve as the designated health home provider.³³

[§] Alternatively, the health home might be a team of health care professionals such as a physician and a nurse care coordinator, a nutritionist, a social worker, a behavioral health professional or another type of provider approved by CMS. These teams may be free standing, virtual, or facility-based. In addition, a health home might be a "community health team," community-based teams created to support primary care practices within the local area served by the team. The community health team must be an interdisciplinary, inter-professional health team, which includes medical specialists, nurses, pharmacists, nutritionists, dieticians, social workers, behavioral health providers, chiropractors, licensed complementary practitioners, and physicians' assistants.

The LTSS Provider-Led Model: The Georgia SOURCE Program

The Georgia Service Options Using Resources in a Community Environment (SOURCE) program is an integrated care model that uses LTSS providers as the lead for the care integration function. The SOURCE program is designed to financially and operationally integrate primary medical care with case management for Medicaid-funded home and community-based waiver services. Its goals are to:

- Reduce the need for long-term institutional placement and increase options in the community for older adults and persons with disabilities, by designing an effective model replicable across the state;
- Prevent the level of disability and disease from increasing in members with chronic illness;
- Eliminate fragmented service delivery through coordination of medical and LTSS services; and
- Increase the cost-efficiency and value of Medicaid LTSS funds by reducing inappropriate
 emergency room use, multiple hospitalizations, and nursing home placement caused by
 preventable medical complications and by promoting self-care and informal support,
 when possible, for individual members.

Although the SOURCE program is Medicaid funded, SOURCE contractors are expected to coordinate Medicare services as well. Over 60 percent of SOURCE program participants are dually eligible for Medicare and Medicaid services.³⁴ The program is targeted to persons eligible for services under its §1915(c) Elderly and Disabled waiver, which includes persons who require a nursing facility level of care and who are Medicaid-eligible based on their eligibility for Supplemental Security Income (SSI). Within that group, different care paths are arranged

depending on the individual's cognitive function and medical need for services. Table 4 describes the design for the Georgia SOURCE program.

Table 4. Overview of Georgia's SOURCE Program³⁵

Geographic Area	The Georgia SOURCE program serves all of the state's counties; approximately half of the individuals served live in rural communities. ³⁶ Of Georgia's 159 counties, 74 have a RUCC of six or higher.
Target Population	Persons who are age 65 and older with a chronic condition or those under 65 with a disability, Medicaid-eligible based on their eligibility for SSI, require a nursing facility level of care, and reside in a SOURCE contractor's designated service area. Targeted chronic conditions include diabetes, high blood pressure, asthma or other pulmonary problems, rheumatoid and osteo-arthritis, stroke, amputations, spinal cord injury, and Alzheimer's.
Locus of Responsibility	The SOURCE contractor is responsible for coordinating overall health care services for members. The Medicaid program contracts with eight regional SOURCE providers; depending on the region, the SOURCE provider might be:
	 A regional council for developmental disabilities A nursing facility A teaching hospital A for-profit case management agency An adult day center for rehabilitation An area agency on aging A geriatric hospital Each SOURCE provider has a limited panel of primary care providers and community service providers as described below.
Scope of Services Integrated	The SOURCE program comprises three principal components – primary medical care, community services, and case management – integrated by the SOURCE provider's authority to approve Medicaid-reimbursed services. LTSS include personal support services, adult day health, home delivered meals, alternative living services, emergency response services, home delivered services, skilled nursing services and 24-hour medical access to a case manager and primary care physician. The SOURCE case manager is expected to coordinate Medicare-funded services but does not have authority to approve Medicare services.
Organizational Relationships	The program uses a preferred provider approach, allowing the SOURCE contractor to selectively contract with providers to exchange a volume of business for increased performance expectations. The SOURCE program selectively contracts with both primary care providers and community service providers to deliver home and community-based services. The primary care provider has added responsibility for chronic disease management, regularly scheduled meetings with case managers, wellness promotions and preventive health measures, and other functions. The community

	service provider has higher expectations for communication and coordination with case management staff, flexibility to respond to persons with complex or unpredictable needs, performance expectations, and other functions.
Payment Model	SOURCE contractors receive a monthly fee for enhanced case management. All other Medicaid services are reimbursed separately on a fee-for-service basis.

The Georgia SOURCE program defines the integrated care management function in its policies and procedures. Table 5 provides an overview of its features.

Table 5. Integrated Care Management Function in the Georgia SOURCE Program³⁷

Table 5. Integrated	Care Management Function in the Georgia SOURCE Program ³
Care Manager	The SOURCE contractor must employ or contract with a medical director for the program site. SOURCE case managers are required to have a background in case management and disease management and a history of working with primary care providers and inpatient facilities and may include RNs, LPNs and social service workers.
Care Team	The SOURCE program has an enhanced case management team that comprises at a minimum the medical director, the program manager, case management supervisory staff, an RN or LPN, and case manager. Other clinical, case management or administrative staff members may participate as needed. Conferences between the care manager and the primary care practice are to take place at least monthly. The enhanced case management team convenes a multi-disciplinary team meeting at least weekly to review new admissions; authorize service plans, track and analyze hospital encounters; and review chronic carepath variances and potential nursing home discharges, provider or service delivery complications, complex referrals, and utilization data, discharges to nursing homes.
Range of Management or Coordination Services	The care management function includes assessment and periodic reassessment, development and periodic revision of the carepath, referral and related activities, and monitoring and follow-up activities. The assessment identifies three possible care levels: persons classified as <i>Level I</i> require skilled nursing services; <i>Level II</i> distinguishes two groups requiring physician and medical monitoring, those having a physical condition and those having a cognitive condition. The SOURCE program uses a standardized approach to care planning, setting a standardized set of goals and expected outcomes for each care level. At a minimum, the care plan addresses community residence (<i>e.g.</i> , keeping medical appointments), nutrition and weight, skin care, blood pressure, blood sugar and other clinical indicators, medication management, performance of activities of daily living and instrumental activities of daily living, transfers and mobility, behaviors, and informal care giver supports.
Duration & Intensity of Integrated Care Management	The intensity of care management depends on the individual's need and carepath; access to SOURCE care management is tied to continued eligibility for the Elderly and Disabled waiver (<i>i.e.</i> , persons living in the community but in need of a nursing facility level of care and living in a SOURCE program's service area). The care manager must have at least monthly contact with the beneficiary and reviews and updates the care plan at least quarterly.

Georgia's SOURCE program operates in parallel to another home and community-based waiver serving older adults and persons with disabilities, the Community Care Services Program (CCSP) waiver. The CCSP waiver covers a comparable set of services, but without the overlay of integrated care across waiver and primary care services. The SOURCE program serves a younger population than the CCSP waiver: 58 percent of the SOURCE program population is under age 64 years, while only 37 percent of the CCSP program population falls into that age group.³⁴ It is possible that the difference in composition is explained by the difference in financial eligibility criteria. The CCSP program has less restrictive financial eligibility standards, which may be more accessible to older adults who have aged into the need for services. Eligibility for the SOURCE program is limited to those eligible for SSI, which has much more restrictive financial eligibility requirements and, thus, may be more likely to include persons with disability acquired early in life.

Program of All-Inclusive Care for the Elderly (PACE)

Authorized under the Balanced Budget Act of 1997, the Program of All-Inclusive Care for the Elderly (PACE) model is an integrated care model designed to integrate care for frail older adults who are dually eligible for Medicare and Medicaid. The PACE program is defined by federal statute and regulation, and is under the direction of CMS. An individual PACE program operates as a three-way partnership among CMS, a Medicaid program, and a for-profit or not-for-profit PACE organization operating in that state.

A PACE program defies neat categorization: it is fully capitated as a managed care program would be, can involve an integrated network of providers the way an integrated delivery system

would, is typically housed within an adult day center, and establishes the PACE center as a medical home for the participant. However, all PACE programs have certain common features:

- All PACE programs serve community-dwelling older adults (age 55 and up) who would
 otherwise be eligible for nursing home placement and who are dually eligible for
 Medicare and Medicaid.
- The PACE program is the sole provider of all Medicare and Medicaid services** which are included in a prospective capitated payment, including preventive, acute care and long term services and supports, as well as additional medically necessary care and services not covered by Medicare or Medicaid.
- Services are integrated using an IDT approach.

The goal of the PACE program is to keep enrollees living in the community rather than in an institution.

A PACE program must operate one or more centers, as necessary to meet the needs of participants. The center must provide primary care services; social work services; restorative therapies including physical and occupational therapy; personal care and supportive services; nutritional counseling; recreational therapy; and meals.

In 2006 the National PACE Association and the National Rural Health Association jointly identified the opportunities and challenges associated with expanding PACE to rural areas.

^{**} At a minimum, primary care, hospital care, medical specialty services, prescription drugs (including Medicare Part D drugs), nursing home services, nursing services, personal care services, emergency services, home care, physical therapy, occupational therapy, adult day health care, recreational therapy, meals, dental care, nutritional counseling, social services, laboratory/x-ray, social work counseling, end of life care and transportation.

Identified challenges included the small population base, limited service capacity, and the lack of financial support for the significant start-up costs associated with a PACE program.³⁸ At the same time, a number of strategies for adapting to rural settings were also identified:

- Using an urban center as a base to help spread the administrative costs and risk associated with rural PACE centers:
- Establishing provider networks through existing rural hospitals, FQHCs and RHCs;
- Developing a role for the community primary care physician, given the dominant role the rural family doctor plays in referring potential participants to the PACE program; and
- Using telehealth and telecommunications to facilitate integration of care teams.

In addition, this group identified one factor rural PACE programs have in their favor: because rural residents tend to be older, are more likely to live alone, and more likely to be eligible for Medicaid, rural PACE programs can expect to serve a higher proportion of local residents than their urban counterparts. The greater the homogeneity of a population's service needs, the easier it is to monitor, adjust, and manage their care.³⁸

Also in 2006, CMS awarded 14 grants to fund development of PACE programs in rural communities. Several programs developed rural centers within driving distance of urban PACE centers, leveraging the experience of the pre-existing center. In the hub and spoke model, the multiple centers are connected operationally and, because of shared administrative staff, have benefited from lower administrative costs.³⁹ Some rural PACE programs offer limited services off-site (e.g., dental services). Many contract for part-time services rather than hire full time

practitioners, especially early in development before enrollment can support a full time employee.

To adapt to the rural community, CMS has granted a number of waivers to these rural PACE programs.

- Eight rural sites have obtained a waiver allowing them to contract with community-based primary care physicians so that participants could retain pre-existing relationships with their primary care provider.^{39,40}
- Five rural PACE sites obtained a waiver allowing them to serve both PACE and non-PACE participants in one location. This waiver allowed some sites to make better use of resources, when serving sparsely populated areas.

Some sites have also requested permission to use nurse practitioners in place of physicians for certain inter-disciplinary team functions. CMS had refrained from granting these requests until it has developed guidance for sites making these requests. Guidance issued in 2010 set minimum qualifications for nurse practitioners and permits nurse practitioners to operate within the scope of their license, as long as the PACE medical director retains overall responsibility for patient care and outcomes. According to MEDPAC's 2012 Annual Report, some rural models also established alternative care settings that allowed the PACE program to monitor the participant's health and provide services without requiring the participant to travel long distances to the PACE center. Others have leveraged existing resources. North Carolina's Piedmont Senior Care program, for example, is operated as part of an FQHC.

A PACE program might seek permission to operate without a PACE center altogether. Called "PACE without walls," this model would avoid the upfront capital investments and enrollment

capacity limitations associated with the PACE center model. However, with limited exception, the staff at PACE sites visited by MEDPAC indicated that the PACE without walls model did not provide adequate opportunity to monitor the health of participants.

There are 14 rural PACE programs.³⁹ Most are located within a larger health care system, although some are in a local area agency on aging, a home health care organization, or another kind of home and community-based service provider organization.³⁹ This paper examines a rural PACE program in Pennsylvania, operated by the Geisinger Health System (GHS), a large integrated delivery system.

The PACE Model: Pennsylvania's LIFE Program

Pennsylvania first implemented its PACE program, called Living Independence for the Elderly (LIFE) in 1998.⁴² The LIFE program operates alongside a Medicaid home and community-based waiver program for older adults that covers a range of in-home supports.

Founded in 1915, GHS is a not-for-profit, integrated health services organization serving 44 counties in Pennsylvania. Geisinger considers itself a pioneer in modern rural health care administration. Geisinger is a large system, with five hospitals (two tertiary) and a physician network with 1,300 physicians. It also has a community health program that includes home health and hospice and infusion services, and operates Geisinger Health Plan, which offers a variety of insurance products.

GHS's LIFE program, called LIFE Geisinger, operates two PACE sites in Pennsylvania, an urban site in Scranton and its rural site in Kulpmont. The Scranton site was launched first; the Kulpmont site was implemented with the help of grant funding received under CMS' 2006 rural

PACE program. Although the Kulpmont service area was rural at the time Geisinger was awarded funding, part of the county is now classified as urban (Table 6).

Table 6. Counties Served by Rural LIFE Geisinger Program²⁹

Counties	Total Population	Average Population per Square Mile (2010)	USDA	Rural Urban Classification (2013)
Columbia	67,295	139	3*	Metro - Counties in metro areas of fewer than 250,000 population
Montour	18,267	140	3*	than 250,000 population
Northumberland	94,528	206	4	Nonmetro - Urban population of 20,000 or more, adjacent to a metro area
Schuykill	148,289	190	4	more, adjacent to a metro area

Note: In 2003, Montour County had a classification of 6 and Columbia County had a classification of 4.

The LIFE program is its own organizational unit within GHS, but benefits from the capacity and infrastructure available in the larger system. Table 7 provides an overview of the LIFE program in Kulpmont.

Table 7. Overview of LIFE Geisinger Program in Kulpmont, Pennsylvania^{44,45}

Geographic Area	The Kulpmont LIFE program site serves four Pennsylvania counties (Columbia, Montour, Northumberland, and Schuykill). At the time the program was launched three of these counties had an urban-rural continuum classification of 4; the fourth was classified at 6.
Target Population	Community-dwelling older adults (age 55 and up) who reside in the Kulpmont LIFE program's service area who would otherwise be eligible for nursing home placement and who are eligible for Medicare and Medicaid.
Locus of Responsibility	LIFE Geisinger is a distinct organizational unit within Geisinger Community Health Services, a non-profit division of GHS. GHS is a non-profit, large integrated health system, with five hospitals, two tertiary, and a physician network with 1300 physicians. GHS also has a community health program that includes home health and hospice and infusion services, and operates Geisinger Health Plan, which offers a variety of insurance products.
Scope of Services Integrated	In addition to physician, hospital and other traditional health services, the LIFE program provides or coordinates adult day health, social services, transportation to and from the program, and LIFE program coordinated services; in-home services; inpatient long term care; dental services, services for hearing and speech impairment, and other services determined necessary by the health team.

Organizational Relationships	The LIFE Geisinger program operates as a three-way partnership among CMS, the state's Medicaid program, and Geisinger. The LIFE Geisinger program in turn contracts with non-GHS providers including nursing facilities, durable medical equipment providers, skilled home health providers, and personal care agencies. GHS also has a waiver from CMS allowing it to contract with a participant's community physician so that PACE participants may continue to receive primary care from their own primary care provider, rather than that of the PACE program.
Payment Model	Payment to the PACE program is fully capitated for both Medicare and Medicaid services.

Geisinger selected the Kulpmont site based on the number of people in the surrounding communities over age 65 requiring a nursing facility level of care. They also chose to partner with a local housing authority to co-locate the LIFE program with low-income housing for older adults in a renovated, retired elementary school building. GHS renovated and leased the gymnasium and cafeteria to house the PACE center. The Kulpmont site is located 25 miles from GHS' tertiary hospital.

Although they both serve low-income older adults, the service populations for the housing program and the LIFE program do not often overlap – the older adults living in the low-income housing usually do not require a nursing facility level of care and are therefore not medically eligible for the PACE program. As a result, the LIFE Geisinger program does not share many resources with its neighboring housing program.

CMS policy defines standards for the PACE program's integrated care management function.

Table 8 outlines these requirements.

Table 8. Integrated Care Management Function in the LIFE Program^{44,45}

Care Manager	The primary care physician manages the participant's medical needs and oversees the participant's use of other medical services.
Care Team	The composition of the PACE program's IDT is defined under CMS policy and must include a primary care physician, a registered nurse, a master's level social worker, a physical therapist, occupational therapist, recreational therapist or activity coordinator, dietician, PACE center manager, home care coordinator, personal care attendant or his or her representative, the member's driver or his or her representative.
Range of Management or Coordination Services	Initial comprehensive assessment, including discipline-specific assessments conducted by each IDT member; the PACE program must have criteria for determining when additional discipline-specific assessments are necessary. The assessment must address physical and cognitive function, medication use, care preferences, nutritional status, psychosocial status, and a range of other elements.
	The IDT consolidates the discipline-specific assessments into a single plan of care which addresses the participant's medical, functional, emotional, social and cognitive needs.
	Services are authorized through the PACE organization's inter-disciplinary team. When the PACE program cannot accommodate a participant's needs, the program may not "hand-off" the participant's care to another provider; the care team is extended to include contracted specialists.
Duration & Intensity of Integrated Care Management	Care management will depend on the participant's needs but is expected to address active chronic problems that are monitored and evaluated over a set timeframe, problems requiring inter-disciplinary coordination, and other significant issues affecting health status.

While every entity within GHS is expected to be self-supporting, the LIFE program has benefitted from being part of a larger organization during this initial building phase. Because the upfront capital investment was low, achieving break-even enrollment happened pretty quickly (about 50-60 participants). However, Kulpmont has had more difficulty achieving optimal capacity. Part of the challenge has been the availability of home and community-based alternatives to the PACE program, including a Medicaid waiver program that provides a comprehensive array of in-home and other services to support older adults in their home. In addition, some community providers may be reluctant to make referrals to the LIFE Geisinger program if it is seen as competition for their own services.

To adapt to the needs of the Kulpmont population, LIFE Geisinger has obtained a Medicare waiver allowing participants to keep their own primary care physician. They found that potential participants were reluctant to enroll if it meant giving up a life-long relationship with their primary care provider. This changed policy also reduced the disincentive for primary care providers to refer their patients to the LIFE program. Because LIFE participants regularly attend the adult day program, transportation is a significant issue for the Kulpmont site, given that participants are spread over four counties. LIFE has also started to introduce telemedicine, including psychiatry and neurology.

The LIFE program has been careful to tailor its site to local culture, making sure the décor is welcoming to the local population and recruiting its staff from all four counties in its service area to make sure that the LIFE program personnel are a comfortable fit for the people they serve.

Managed Care Organizations

Managed care is often difficult to implement in rural areas. Because of the challenges associated with developing a provider network, many Medicaid programs do not mandate enrollment into the managed care program in rural areas.¹⁹ Where competition for Medicaid managed care contracts is strong in a state, however, the Medicaid program has some leverage for pushing managed care organizations to expand to rural regions.¹⁹ Nevertheless, the number of states pushing managed care out to rural areas is relatively few.¹⁹

The number of states using managed care to deliver LTSS is also low, although increasing.

Between 2004 and 2012 the number of states with MLTSS programs increased from 8 to 16.⁴⁶ If states proceed as planned, 26 states will have MLTSS programs by 2014. MLTSS programs

include programs that make capitated payments for (1) LTSS alone, (2) LTSS and other Medicaid services, with exclusions of one or more major service categories (institutional care, behavioral health care, prescription drugs, and physical health care); and (3) comprehensive Medicaid services, including LTSS and all other major service categories. These MTLSS programs have different levels of integration with Medicare, with some requiring coordination, others requiring the managed care organization to offer a Medicare-approved special needs plan (SNP) designed for persons dually eligible for Medicare and Medicaid, †† and others fully integrated (i.e., the managed care organization is at risk for both Medicare and Medicaid services). 46 Under a capitated program, a managed care organization serving persons with chronic conditions and other high cost users has an interest in closely managing care. However, integrated funding and capitated payments do not guarantee that care will be integrated. Linking providers by contract does not necessarily mean that they have the resources, capacity, and processes that make integration possible. Nor does a capitated payment by itself incent integrated care; without mechanisms for assuring quality, the incentive could be to deny care. However, with the proper controls and capacity, contracting with an MCO provides a convenient means of establishing a single point of accountability for the whole health of beneficiaries. A study of case management provided under Arizona's and Massachusetts' MLTSS programs illustrates the potential advantage a capitated program offers over other models.⁴⁷ Plans operating under these programs found that capitated payments allowed them to shift more

^{††} SNPs serve persons with special needs, defined as persons who have a severe and disabling chronic condition, persons dually eligible Medicare and Medicaid, and persons requiring an institutional level of care. The SNP is responsible for all medically necessary services covered under Medicare Part A (hospital), Part B (medical care) and Part D (prescription drug services). SNPs serving dually eligible beneficiaries are required to contract with state Medicaid agencies, documenting the SNP's responsibilities for providing or arranging Medicaid benefits.

resources to primary care and prevention. In Massachusetts, MCOs were also allowed the flexibility to offer additional benefits other than those typically covered under Medicaid or Medicare in order to help people stay in their own homes.

Several states have implemented Medicaid MLTSS programs that integrate LTSS and health care services and reach into rural areas. These include:⁴⁶

- Arizona's Long Term Care System (ALTCS) program, under which Arizona contracts
 with MCOs to provide comprehensive Medicaid services to older adults and persons with
 disabilities. The MCO must have an aligned Medicare Advantage plan in order to
 provide coordination for persons dually eligible for Medicare and Medicaid services.
 Arizona's program is statewide and serves persons requiring an institutional level of care.
- Minnesota Senior Health Options (MSHO) program and Minnesota Senior Care Plus
 (MSC+) both integrate medical services and LTSS for older adults. Both programs
 operate statewide and offer comprehensive Medicaid services. MSHO is a fully
 integrated Medicare and Medicaid program, serving persons dually eligible for Medicaid
 and Medicare.
- Tennessee's TennCare Choices program operates statewide and provides comprehensive
 Medicaid coverage, with prescription drugs carved out. TennCare serves older adults,
 adults with disabilities and persons of any age residing in a nursing facility. The MCOs
 coordinate with Medicare.

• Wisconsin's Family Care Partnership program operates in 14 of Wisconsin's 72 counties, one of which has an RUCC of 6 and three of which are classified as 4. The Family Care Partnership program provides fully integrated coverage for all Medicare Advantage plan health benefits and Part D prescription drug benefits, and comprehensive Medicaid coverage. The Partnership program serves persons requiring a nursing facility level of care. Wisconsin also operates a Family Care program in 52 counties for managed LTSS; primary and acute medical services and prescription drugs are excluded. Family Care MCOs are expected to coordinate with Medicare for beneficiaries who are dually eligible. 46

In addition to these states, New Mexico has an MLTSS program that integrates physical health care and long term services and supports. New Mexico's program is in a period of transition that focuses more on integrating care at the point of service delivery.

The MCO Model: New Mexico's COLT

New Mexico's Coordinated Long Term Services (CoLTS) program operates under concurrent §1915(b) and §1915(c) Medicaid waivers,^{‡‡} although New Mexico and CMS have recently come to agreement in principle that its MLTSS program will become part of a comprehensive §1115 waiver that will consolidate multiple §1915(b) waivers providing coverage for New Mexico's general and LTSS populations.

^{**}New Mexico's §1915(c) waiver allows it to provide HCBS to persons requiring a nursing facility level of care. Under its§1915(b) waiver, New Mexico is authorized to operate a managed care program. New Mexico's Medicaid state plan services, covering general health care benefits, are provided under the §1915(b) waiver. In addition, the concurrent §1915(b) waiver authorizes New Mexico to offer its §1915(c) HCBS waiver services through a managed care delivery system.

As currently structured, New Mexico's MLTSS program serves persons in need of a nursing facility level of care. Participating managed care organizations are required to coordinate Medicaid services with Medicare.

Table 9. Overview of New Mexico's Coordinated Long Term Services (CoLTS) Program⁴⁸

Geographic Area	New Mexico's MLTSS program operates statewide. Fewer than half (14) of New Mexico's 33 counties have an RUCC lower than 6.
Target Population	Persons age 65 and up or persons with disabilities any age up to age 64 who require a nursing facility level of care; persons who are dually eligible for Medicare and Medicaid (but not necessarily requiring a nursing facility level of care).
Locus of Responsibility	Managed care organizations.
Scope of Services Integrated	General health care benefits covered under New Mexico's Medicaid state plan, along with LTSS covered under the state's CoLTS waiver covering physical health services and LTSS. Beneficiaries have the option to direct their own LTSS. Behavioral health services are provided through a separate MCO.
Organizational Relationships	The MCO is required to have a provider network that includes primary care providers, including FQHCs, RHCs, specialists, LTSS providers, and other providers.
Payment Model	Payment to the MCO is fully capitated and the MCO takes full responsibility for all medical and administrative expenditures related to Medicaid benefits.

Service coordination is provided by service coordinators employed by or under contract with the MCO. Service coordination is defined using a traditional social model for service coordination. Although service plans are individualized based on individual need, there is no formal process for stratifying the service population to identify clients' relative level of care need.

Table 10. Overview of CoLTS Program Integrated Care Management Function⁴⁹

Care Manager	Service Coordinators are employees or subcontractors to the MCO and may be licensed RNs, LPNs, or social workers; or have a bachelor's degree in nursing, social work, counseling, special education or a closely related field and a minimum of one year's experience working with older adults or persons with disabilities.
Care Team	The beneficiary's individualized service plan is developed by the service coordinator in collaboration with the beneficiary and professionals and others involved in the beneficiary's care, as necessary.

Range of Management or Coordination Services	The Service Coordinator is responsible for identifying each beneficiary's needs, including need for physical health, mental health, social and long term support services. Based on identified needs the Service Coordinator develops the beneficiary's individualized service plan or treatment plan and coordinates access to services. The MCO is responsible for having policies and procedures that address coordination across providers, service systems, and levels of care; coordination of transitions across care settings; and coordination across funding sources, including Medicaid and Medicare.
Duration & Intensity of Integrated Care Management	The Service Coordinator must meet face-to-face at least quarterly, or telephonically at least monthly with persons receiving LTSS, and as frequently as appropriate to support the beneficiary's goals and independence. Beneficiaries receive integrated care management for the duration of their participation in the CoLTS program.

New Mexico has submitted a proposal to CMS to replace its current Medicaid program with a comprehensive §1115 waiver that would significantly reshape its program. Under its Centennial Care proposal, New Mexico would consolidate its Medicaid program, contracting with fewer MCOs to provide a full range of services, combining its fee-for-service and managed care service packages under one managed care contract.

As part of this reform, New Mexico is building its managed care program on a platform of medical homes and health homes, and a care coordination system that stratifies its service population based on level of need. Under Centennial Care, care coordination is expected to happen at the "point of service," through providers, rather than through the MCO. "Level 3" beneficiaries will be those with the most expensive or high-risk service needs and will receive intensive coordination. This group is likely to include the medically complex or fragile; those with high emergency room usage in the past three-month period; those with a high-risk mental health diagnosis or an individual who is seriously and persistently mentally ill; persons requiring assistance with two or more activities of daily living, and those who are transient and without a natural support network; or have a co-occurring mental health and substance abuse diagnosis.

The Level 3 care coordination recipients will receive quarterly face-to-face visits, semi-annual comprehensive assessments and monthly phone contact by a care coordinator.

New Mexico is requiring Centennial Care MCOs to be a CMS-approved Medicare SNP or offer Medicare products to facilitate coordination for persons dually eligible for Medicare and Medicaid.⁵⁰

Like a number of other states, New Mexico is proposing under its §1115 waiver application to use savings from its managed care program to make supplemental payments to hospitals serving as the sole community provider in their communities. A number of other states have used §1115 waivers to obtain funding to make supplemental payments to hospitals and other community providers.

ADAPTING INTEGRATED CARE MODELS TO RURAL COMMUNITIES

Just as the models of integrated care call for individualized, person-centered services tailored to the needs of the beneficiary, models of integrated care must also be tailored and adapted to the rural context in which they operate. Each of the models reviewed have different strengths and weaknesses, weighing for and against implementation in rural areas. In this section we examine four issues that arise in evaluating rural integrated care models: gaps in integrated care management capacity, the cost of building a care management infrastructure, the trade-offs associated with targeted versus population-based approaches, and choices of formal versus informal provider relationships.

Filling Gaps in Rural Integrated Care Management Capacity

Generally, the goal of integrating care creates an inherent bias toward larger organizations with the capacity to support more infrastructure, and greater organizational integration. Integrated care involves a comprehensive approach, with trained and dedicated staff applying defined protocols and processes. The process of transforming relationships among individual providers to a team approach oriented around the patient requires leadership, expertise, and skills. ¹⁰ Incorporating health information and data analytics into care management requires both an investment in technology and the skills to use it. Integrated delivery systems are better equipped to build the necessary care management infrastructure and to respond to payment incentives.

Different models have different strategies for compensating for this bias in rural communities, where the organizational capacity of providers is less likely to be optimal. To some degree the PACE program imports infrastructure and a pre-defined program into the rural community. The majority of PACE programs adopt a "hub and spoke" model, leveraging the infrastructure and capacity of an urban center in service to the rural site. The contours of the program are prescribed by CMS regulation. While some requirements have been modified to allow adaptation to the rural environment and some provisions may be waived, typically PACE programs have not made major adaptations in response to the existing, naturally-occurring provider relationships. Nor does the PACE program have the flexibility to adapt eligibility or the scope of managed services to the local rural population; Geisinger identified competitive home and community-based services (HCBS) alternatives as one reason enrollment in its Kulpmont site has not flourished. In addition, PACE programs are not immune to resistance from rural providers who are reluctant to make referrals to a provider seen as competition. The limited

adoption of the PACE model in rural communities beyond the original grantee states suggests that the challenges of implementing a PACE program often outweigh the advantages.

Colorado's Accountable Care Collaborative takes the opposite approach. While the RCCO is ultimately accountable for integrating care, it is charged with filling the gaps in the system rather than displacing existing capacity. This approach emphasizes a heavy investment in the "soft side" of integrating care, including relationship building, provider training, and information sharing. Colorado is actively trying to promote integration at the point of care among existing providers. It is important to note that Colorado's model is still largely untested when it comes to integrating medical care and LTSS; it too has met resistance from urban and rural LTSS care coordination providers who see the RCCO as disrupting their model of care.

Lowering the Cost of Rural Integrated Care with Shared Supports

Investing in a shared provider support network, including shared training and shared resources, has particular advantages for rural providers, where economies of scale make investment by an individual provider unrealistic. Treating investments in health information technology as an investment in a public utility will help to make the efficiencies of information sharing more accessible to small, under-resourced providers, improving information sharing at both the client and management level.

States that have invested in shared support networks take one of two paths. Colorado has chosen more of a top-down approach, importing these supports through the regional care collaborative organizations. North Carolina, Vermont, and Maine have taken a bottom-up approach, providing the supports through community-based providers. Colorado's approach has required a heavy

investment in building local relationships and learning about local resources. However, the RCCO comes with much of the needed infrastructure and expertise already in place. The "bottom-up" approach is likely to have a head start on building relationships but may require more investment in developing the necessary infrastructure and the capacity, and expertise of the workforce. Which of these two paths is best may depend on the relative cohesiveness of the rural delivery system and its readiness for building the necessary capacity.

Targeted versus Population-Based Approaches

The models reviewed here have different strategies for defining the service population for integrated care management. Georgia's SOURCE program, Pennsylvania's PACE program, and New Mexico CoLTS program are all targeted to specific, more narrowly-defined population groups. Specifically, all three programs target persons requiring an institutional level of care, with the PACE program limited to older adults and the SOURCE and CoLTS programs both serving persons with disabilities in other age groups. By targeting the service population based on the level of need, the accountable entity is responsible for providing the appropriate level of care coordination based on the assessed level of need. The trade-off of targeting the service population in rural areas, however, is that it may make it difficult to achieve the critical mass of clients needed to support an integrated care management infrastructure.

Colorado's Accountable Care Collaborative and New Mexico's not yet implemented Centennial Care program both take a more comprehensive, population-based approach to identifying the population to be served by their integrated care system. A population-based approach is more likely to produce the critical mass of clients needed to support a care management system. With the right level of shared practice support, a population-based model may also be the most

realistic and effective means of influencing provider practice in rural communities. Public and private health care payers and will have a greater impact on provider behavior when more of provider's patients are involved.

Population-based models carry the risk that the specialized needs of persons with complex needs may not be addressed as well as they might in a smaller, targeted program. However, the high costs associated with high-risk clients or groups create a counteracting incentive to focus on this group's needs.

Formal and Informal Relationships among Providers

Structurally, the financial and legal levers for delivering comprehensive, integrated care vary by model. The PACE program offers the greatest level of control (and accountability), holding the PACE provider responsible for the complete range of Medicaid and Medicare physical and behavioral health and long term services and supports for its service population. The MCO operating under New Mexico's CoLTS program is both accountable for coordinating a broad range of services and has control over payment for those services, at least for beneficiaries receiving their services through Medicaid only (and with the exception of behavioral health services which are provided through another entity).

The RCCO operating under Colorado's Accountable Care Collaborative is also responsible for coordinating a broad range of services but, unlike a managed care organization, does not have the same leverage over all of the providers necessary for their success. In Colorado's model, the RCCO has formal contracts with the primary care medical provider but does not have formal contracts with other providers. It facilitates integrated care through its own care managers and

influences provider behavior through information, training, and relationship building. In Georgia's SOURCE program, the SOURCE contractor has a provider panel including primary care and LTSS community providers, but does not have formal relationships with hospitals, specialists, or other providers. In both cases, the success of the care manager depends on informal partnerships.

Comprehensive, formal provider networks generally permit greater leverage and influence over provider behavior in rural communities. Their absence in rural communities, where collaborative and interdependent relationships are often a necessity, may be less important than in larger communities where competition and service options are greater.

DISCUSSION

The goal of this paper was to better understand how easily current models for integrating care be adapted to a rural context and culture, how well these models account for gaps and variations in local delivery systems, capacity and infrastructure, and which strategies offer the greatest promise for addressing the needs of rural residents. To that end, we reviewed four types of organizational models designed to support the integration of physical and behavioral care and long term services and supports within the context of rural communities. These four models -- physician-led models, LTSS provider- led models, rural PACE programs, and managed LTSS programs – each offer their own set of unique strengths and challenges. Emerging from this review are several themes:

• An integrated care "model" cannot be imported to a rural community without adaptation. Implementation of integrated care management in rural areas needs to be incremental, respectful of and ready to adapt to the unique characteristics of the local

community, and cognizant of the limitations of the model and the delivery system within which it operates. Integrated care models in a rural community require an investment in building relationships with local providers and adapting to local culture and services. Integrated care models that cannot adapt to the local delivery system are more likely to face resistance from local providers and those they serve and potentially duplicate or displace existing rural capacity.

- "Wraparound" integrated care models can support rather than displace the local rural delivery system. While models of integrated care management have an inherent bias toward larger organizations and infrastructure, including HIT, "wraparound" integrated care models can fill some of the gaps in existing care coordination capacity, offering a flexible approach that can adapt to a local rural delivery system. Public investment in shared supports can lower the cost of integrating care in rural delivery systems. However, even the most flexible wraparound model of integrated care management cannot compensate for certain gaps in infrastructure, including provider-level access to HIT and HIE, and provider-level staff trained to make the most of the tools and resources that support integrated care.
- Gaps in the continuum of care in rural communities will limit the success of models aimed at integrating care. Similarly, any model of integrated care rests on the underlying continuum of health care and long term services and supports available in a rural community. Where gaps in the care continuum cannot be filled, the ability to improve health outcomes and support independent living for older adults may be limited.

Creative care management staff and a flexible benefit design may help to compensate for some workforce shortages; a lack of access to needed services and supports will continue to present a barrier to optimal care.

POLICY IMPLICATIONS

As policymakers and others move forward with initiatives to implement integrated care management, these caveats suggest some opportunities for adapting these integrated care models to the rural context. For example, policymakers may want to explore:

- Alignment and adaptation of Medicaid and Medicare financing options to fit the rural context. For older adults, integrated care often involves Medicare financing and CMS is currently leading an initiative to integrate Medicare and Medicaid financing for persons who are dually eligible. As illustrated by the models reviewed here, it is especially critical in rural areas that provider payment incent or pay for the added level of effort associated with integrating care. CMS currently promotes a variety of Medicaid state plan options and waiver authorities that allow states to compensate providers for integrating care, including primary care case management, health homes, capitated managed and other options.^{4,5} Each of these options comes with different requirements and constraints that may or may not adapt well to the needs of specific rural communities.
- Strategies for incenting and supporting the development of shared care management supports for providers. Shared care management networks have been characterized as a "public utility" meriting the investment of public resources. ¹⁰ Investments in these "utility" services might include sponsoring a shared care coordinator across multiple practices, sponsoring learning collaboratives for disseminating information, creating linkages between hospitals and medical homes so that a patient's medical home provider

is notified when its patient is admitted, or using claims data and other sources to provide primary care practices with information about their patients' service utilization.

States have used different strategies for financing and supporting these shared care management systems, including shared savings accrued under demonstrations (e.g., §1115 waivers), increased rates paid to MCOs so that the MCO provides practice supports or provider incentives, purchasing the supports through a vendor, or another strategy. Several CMS-funded initiatives have also supported some of these upfront investments. In addition, federal grant programs targeted to rural areas (*e.g.*, the Medicare Rural Hospital Flexibility Program, Rural Health Network Development Program, the Rural Health Information Technology Network Development Program, and the Rural Health Care Services Outreach Program have able to help fill gaps in key capacity areas such as network development, training, and HIT development.

REFERENCES

- 1. Data.CMS.gov. *Cms Innovation Center Model Participants*. 2013. Available at: https://data.cms.gov/dataset/CMS-Innovation-Center-Model-Participants/x8pc-u7ta. Accessed May 29, 2013.
- 2. Social Security Administration. Section 1115a of the Social Security Act: Center for Medicare and Medicaid Innovation Established. 2013. Available at: http://www.ssa.gov/OP_Home/ssact/title11/1115A.htm. Accessed May 29, 2013.
- 3. Walsh EG, Freiman M, Haber S, Bragg A, Ouslander J, Weiner JM. Cost Drivers for Dually Eligible Beneficiaries: Potentially Avoidable Hospitalizations from Nursing Facility, Skilled Nursing Facility and Home and Community-Based Services Waiver Programs. Waltham, MA: RTI International; August, 2010.
- **4.** Francisco V, Ravesloot C. *State of the Science Report: Overview of Rural Health.* Missoula, MT: University of Montana, Rural Training Center on Disability in Rural Communities; April, 2012.
- 5. Ouwens M, Wollersheim H, Hermens R, Hulscher M, Grol R. Integrated Care Programmes for Chronically Ill Patients: A Review of Systematic Reviews. *Int J Qual Health Care*. Apr 2005;17(2):141-146.
- 6. Chen A, Brown R, Archibald N, Aliotta S, Fox PD. *Best Practices in Coordinated Care*. Princeton, NJ: Mathematica Policy Research, Inc.; March 22, 2000. MPR Reference No. 8534-004.
- 7. Rich E, Lipson D, Libersky J, Parchman M. Coordinating Care for Adults with Complex Care Needs in the Patient-Centered Medical Home: Challenges and Solutions. Rockville, MD: Agency for Healthcare Research and Quality; January, 2012. AHRQ Publication No. 12-0010.
- **8.** Hickam DH, Weiss JW, Guise J, et al. *Outpatient Case Management for Adults with Medical Illness and Complex Care Needs*. Portland, OR: Oregon Evidence-based Practice Center; January, 2013.
- 9. Craig C, Eby D, Whittington J. *Care Coordination Model: Better Care at Lower Cost for People with Multiple Health and Social Needs*. Cambridge, MA: Institute for Healthcare Improvement;2011. IHI Innovations Series White Paper.

- **10.** Highsmith N, Berenson J. *Driving Value in Medicaid Managed Care: The Role of Shared Support Networks for Physician Practices.* New York: The Commonwealth Fund;2011. Commonwealth Fund pub. no. 1484.
- **11.** Schneider E, Hussey P, Schnyer C. *Payment Reform: Analysis of Models and Performance Measurement Implications*. Santa Monica, CA: Rand;2011. Technical Report TR-841-NQF.
- 12. Shih A, Davis K, Schoenbaum SC, Gauthier A, Nazum R, McCarthy D. *Organizing the U.S. Health Care Delivery System for High Performance*. New York: The Commonwealth Fund; August, 2008.
- 13. Coburn AF. Models for Integrating and Managing Acute and Long-Term Care Services in Rural Areas. *J Appl Gerontol*. December 1, 2001 2001;20(4):386-408.
- **14.** Verdier JM, Au M, Gillooly J. *Managing the Care of Dual Eligible Beneficiaries: A Review of Selected State Programs and Special Needs Plans*. Washington, DC: Medicare Payment Advisory Commission; June, 2011. No. 11-2.
- **15.** Bolda EJ, Seavey JW. Rural Long-Term Care Integration: Developing Service Capacity. *J Appl Gerontol*. December 2001;20(4):426-457.
- 16. Bolda EJ, Dushuttle P, Keith RG, Coburn AF, Bridges K. *Does Access to Mental Health Services for Rural and Urban Nursing Home Residents with Depression Differ?* Portland, ME: University of Southern Maine, Edmund S. Muskie School of Public Service, Maine Rural Health Research Center;1998. Working Paper #11.
- 17. MacKinney AC, Ulrich F, Mueller KJ. *Patient-Centered Medical Home Services in 29 Rural Primary Care Practices: A Work in Progress*. Iowa City, IA: RUPRI Center for Rural Health Policy Analysis; September, 2011. Policy Brief No. 2011-6.
- **18.** Ziller E, Lenardson J. *Rural-Urban Differences in Health Care Access Vary across Measures.* Portland, ME: University of Southern Maine, Muskie School of Public Service, Maine Rural Health Research Center; June, 2009. Research & Policy Brief.
- 19. Howell E, Palmer A, Adams F. *Medicaid and CHIP Risk-Based Managed Care in 20 States: Experiences over the Past Decade and Lessons for the Future.* Washington, DC: Urban Institute; July, 2012.
- **20.** Saucier P, Fralich J. Financing and Payment Issues in Rural Long-Term Care Integration. *J Appl Gerontol.* December 1 2001;20(4):409-425.

- 21. National Committee for Quality Assurance. *Ncqa's Patient-Centered Medical Home* (*PCMH*) 2011. Washington, DC: NCQA; January 31, 2011.
- **22.** Berenson RA, Hammons T, Gans DN, et al. A House Is Not a Home: Keeping Patients at the Center of Practice Redesign. *Health Aff (Millwood)*. Sep-Oct 2008;27(5):1219-1230.
- 23. Center for Medicare and Medicaid Innovation. *FQHC Advanced Primary Care Practice Demonstration*. 2011. Available at: http://innovation.cms.gov/initiatives/FQHCs/. Accessed May 31, 2013.
- **24.** Centers for Medicare and Medicaid Services, Center for Medicaid and CHIP Services. Letter to State Medicaid Directors: Policy Considerations for Integrated Care Models. Washington, DC: CMS; July 10, 2012. SMDL #12-002, ICM#2.
- **25.** Kaiser Commission on Medicaid and the Uninsured. *Emerging Medicaid Accountable Care Organizations: The Role of Managed Care.* Washington, DC: Kaiser Commission; May, 2012. Issue Paper #8319.
- 26. Colorado Department of Health Care Policy and Financing. Request for Proposals # HCPFKQ1102RCCO. Regional Care Collaborative Organizations for the Accountable Care Collaborative Program 2010. Available at: http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application/pdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251810248624&ssbinary=true. Accessed April 11, 2013.
- 27. Colorado Department of Health Care Policy and Financing. Contract Template for Participation as a Primary Care Medical Provider in the Accountable Care Collaborative Program. Version 2.0. n.d. Available at:

 http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251782977347&ssbinary=true.

 Accessed April 11, 2013.
- 28. Colorado Department of Health Care Policy and Financing. Statewide Data Analytics Contractor (SDAC). Factsheet. n.d. Available at:

 http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251781891208&ssbinary=true.

 Accessed April 11, 2013.
- 29. U.S. Department of Agrigulture, Economic Research Service. 2013 Rural-Urban Continuum Codes. 2013. Available at: http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx#.Uym5DhCuSR-. Accessed July 10, 2013.

- 30. State of Colorado. Written Protocols to Strengthen Relationships and Improve Coordination between Single Entry Point Agencies (Seps) and Regional Care Collaborative Organizations (RCCOs). Version 1.3, 07/09/2013 Draft. 2013. Available at:

 http://www.colorado.gov/cs/Satellite?blobcol=urldata&blobheader=application%2Fpdf&blobkey=id&blobtable=MungoBlobs&blobwhere=1251903651269&ssbinary=true. Accessed April 9, 2013.
- 31. Colorado Department of Health Care Policy and Financing. *Proposal to the Centers for Medicare and Medicaid Innovation: State Demonstration to Integrate Care for Dual Eligible Individuals.* Denver, CO: Colorado Department of Health Care Policy and Financing; May, 2012.
- **32.** U.S. Department of Commerce. *Colorado: 2012 Summary Population and Housing Characteristics*. Washington, DC: U.S. Government Printing Office; December, 2012.
- **33.** Centers for Medicare and Medicaid Services, Center for Medicaid, CHIP and Survey & Certification. *Letter to State Medicaid Directors: Health Homes for Enrollees with Chronic Conditions.* Washington, DC: CMS; November 16, 2010. SMDL#10-024, ACA#12.
- **34.** Georgia Department of Community Health. *Aged, Blind and Disabled Profiles*. Atlanta, GA: Georgia Department of Community Health, Office of Planning and Fiscal Analysis, Decision Support Unit; November 9, 2012.
- 35. Georgia Department of Community Health, Division of Medicaid. *Policies and Procedures for Service Options Using Resources in Community Environments*. Atlanta, GA: Georgia Department of Community Health; October, 2012.
- **36.** Fitzgerald P, Coburn A, Dwyer SK. *Expanding Rural Elder Care Options: Models That Work.* Alexandria, VA: National PACE Association and the Rural Long Term Care Workgroup;2009. Proceedings from the 2008 Rural Long Term Care Access and Options Workshop.
- 37. Centers for Medicare & Medicaid Services. *Georgia's Elderly and Disabled §1915(C)*Waiver Approval Document #Ga.0112.R06.00. Effective October 1, 2012. n.d. Available at: http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Waivers/Waivers.html. Accessed May 6, 2013.
- **38.** Fitzgerald P, Morgan A, Morris T. Rural Policy Development: An Nrha and PACE Association Collaborative Model. *J Rural Health*. Winter 2004;20(1):92-96.

- **39.** Anderson KK. Evaluation of the Rural PACE Provider Grant Program: Report to Congress. Washington, DC: U.S. Department of Health and Human Services;2011.
- **40.** Medicare Payment Advisory Commission. *Report to Congress: Medicare and the Health Care Delivery System.* Washington, DC: MedPAC; June, 2012.
- **41.** Centers for Medicare and Medicaid Services. *Memorandum: PACE Organization's Use of Nurse Practitioners in the PACE Program.* Baltimore, MD: CMS; June 25, 2010.
- **42.** Pennsylvania Department of Aging. *Pennsylvania Living Independence for the Elderly* 2013. Available at: http://www.portal.state.pa.us/portal/server.pt?open=514&objID=733117&mode=2. Accessed April 11, 2013.
- **43.** Geisinger Health System. *Geisinger Facts: History*. 2012. Available at: http://www.geisinger.org/community/index.html. Accessed May 31, 2013.
- **44.** Centers for Medicare & Medicaid Services. *Programs of All-Inclusive Care for the Elderly (PACE) Manual.* Washington, DC: CMS; June 3, 2011. Pub. 100-11, Transmittal 1.
- **45.** Geisinger Health Plan. *Life Geisinger Enrollment Agreement*. n.d. Available at: http://www.thehealthplan.com/documents/providers/LIFEGeisinger%20Enrollment.pdf. Accessed May 6, 2013.
- **46.** Saucier P, Kasten J, Burwell B, Gold G. *The Growth of Managed Long-Term Services and Supports (MLTSS) Programs: A 2012 Update*. Ann Arbor, MI: Truven Health Analytics; July, 2012.
- **47.** Burwell B, Saucier P, Walker L. *Care Management Practices in Integrated Care Models for Dual Eligibles.* Washington, DC: AARP Public Policy Institute;2010.
- **48.** Centers for Medicare & Medicaid Services. *New Mexico's Coordinated Long Term Services (Clts) §1915(C) Waiver Amendment Approval Document.* 2010, May 1. Available at: http://www.hsd.state.nm.us/mad/pdf files/HCBSW/HCBW.PDF. Accessed May 6, 2013.
- 49. New Mexico Human Services Department. *Mediciad Managed Care Services Agreement for Coordination of Long Term Services (Colts) between New Mexico Human Services Department and Amerigroup Community Care of New Mexico, Inc.* 2012, July. Available at: http://www.hsd.state.nm.us/mad/pdf_files/Amerigroup%20FY13%20contract.pdf. Accessed May 6, 2013.

- 50. New Mexico Human Services Department. *Centennial Care Request for Proposals*. Santa Fe, NM: New Mexico Human Services Department; August 31, 2012. RFP #13-630-8000-001
- 51. Health Resources and Services Administration. *Medicare Rural Hospital Flexibility Grant Program*. 2014. Available at: http://www.hrsa.gov/ruralhealth/about/hospitalstate/medicareflexibility_.html. Accessed February 24, 2014.
- 52. Health Resources and Services Administration. *Rural Health Network Development Program*. 2014. Available at: http://www.hrsa.gov/ruralhealth/about/community/networkprogram.html. Accessed March 27, 2014.
- 53. Health Resources and Services Administration. *Rural Health Information Technology Network Development Program*. 2014. Available at: http://www.hrsa.gov/ruralhealth/about/community/rhitnd.html. Accessed February 24, 2014.
- 54. Health Resources and Services Administration. *Rural Health Care Services Outreach Grant Program*. 2014. Available at: http://www.hrsa.gov/ruralhealth/about/community/careservicesoutreach.html. Accessed February 24, 2014.