CONTENTS

Current Research in Rural Models of
Integrated Long-Term Care ................................................. Joyce Beaulieu
Graham D. Rowles
Linda C. Kuder ................................................................. 379

Models for Integrating and Managing Acute and
Long-Term Care Services in Rural Areas .......................... Andrew F. Coburn ......................................................... 386
Financing and Payment Issues in Rural
Long-Term Care Integration ............................................ Paul Saucier
Julie Fralich ........................................................................... 409

Rural Long-Term Care Integration:
Developing Service Capacity .............................................. Elise J. Bolda
John W. Seavey ................................................................... 426

Case Management Issues in
Rural Long-Term Care Models ........................................ Cheryl Schroeder
Teri Britt ............................................................................. 458

State and Local Initiatives and Research Questions
for Rural Long-Term Care Models ................................. Linda C. Kuder
Joyce Beaulieu
Graham D. Rowles ............................................................ 471

The Inaugural INVESCO Lecture on Retirement Income Security
Divine Benefit Versus Divine Contribution Pensions:
Approaches to Monitoring Improvements in American
Retirement Income Security Over the Next Decade ............ Neal E. Cutler ................................................................. 480

Index .................................................................................... 508
Current Research in Rural Models of Integrated Long-Term Care

Joyce Beaulieu
Graham D. Rowles
Linda C. Kuder
University of Kentucky

This introductory article describes four commissioned articles in this issue that review the research on integrated models of long-term care and the rural implications of these models. Most models have been tested in urban areas or with urban population bases. Rural regions have both barriers and opportunities in implementing integrated long-term care. Although a full range of long-term care services may be failing to meet the needs of home and community-based care, rural areas may have better cooperation among acute and long-term care providers. Managed care penetration and experience are limited in most rural regions, but examples are given of Program for All-Inclusive Care of the Elderly programs, the Arizona long-term care system, the Carle Clinic demonstration, and developments in several states for serving rural long-term care populations with new models that integrate across providers, funders, and services.

Rural long-term care has received little attention by researchers. During the 1990s, however, more studies were undertaken to explore how rural communities meet the needs of those who are elderly or disabled in ways that maintain the integrity of the local culture, improve local options for care, and value family and kin roles in caring for chronically ill family members. Two conferences were held during this time, one in 1994 and the other in 1999. Both conferences spotlighted current research in rural long-term care and sought to develop research agendas.

The first conference was a systematic exploration of the unique roles of both formal institutions (hospitals, nursing homes, home- and community-
based services and senior centers) and informal networks in the provision of rural long-term care (Rowles, Beaulieu, & Myers, 1996). The second conference focused on the utility of different models of long-term care currently being tested, issues in adapting these models for rural populations, and a review of findings from a few extant models that specifically serve rural clientele.

The 1999 conference took as its starting point the findings of the 1994 rural long-term care conference on the roles of rural institutions and the need for further research and advocacy for specific programs. Specifically, the 1994 conference led to a statement of seven overriding principles for improving rural long-term care (Beaulieu, Rowles, & Myers, 1996; Rowles, Beaulieu, & Myers, 1995).

- **Community locus of control.** Communities need programs that respond to their unique characteristics and their environmental, demographic, economic, social, political, and cultural diversity.
- **Nonlinear models of care.** Long-term care needs of clients fluctuate rather than follow a linear pattern of improvement or decline. As a result, integration of services and providers is required across primary care, acute care, and long-term care.
- **Client-centered philosophy of care.** Program reimbursement policies that sometimes pigeonhole clients into categories of eligibility do not meet the individual needs of rural elders. More flexible payment structures are needed to facilitate humane and cost-effective care.
- **Family-centered decision making.** Just as the community should be the unit of accountability to meet community needs, so should the client and her or his support system make decisions about individual services.
- **Access to information.** Contrary to the stereotypes of the strong communication networks of small communities, rural areas may have weak informal and formal networks of information sharing for long-term care services, including Internet capability. Consumers in rural areas need adequate information about services, and communities need to be able to access new information about long-term care models that work to make decisions for improving long-term care service availability and delivery.
- **Cooperation among providers.** To improve access to rural care, cooperative and collaborative relationships must be built across levels of care (acute and long-term care), among sites of care (inpatient, outpatient, and home and community services), and among professions (medicine, nursing, social service, rehabilitation therapy, and others).
- **Redefinition of health professional roles.** Greater access to long-term care may be achieved in rural areas by adding flexibility in insurance and public programs for the use and reimbursement of rehabilitation therapists or other professionals who are in short supply.

The following articles reiterate these principles within the theme of integrating services across levels of care and financing streams. Each article
discusses the current research and models being tested. In many cases, research is scant, except in urban examples. The authors describe the programs, their goals, and their potential or actual implementation for rural clients.

The first article defines and describes research and demonstrations for various modes of integration of financing mechanisms, providers, and services (Coburn, 2001 [this issue]). Dr. Coburn describes the principles of managed care that underpin demonstrations of Medicare/Medicaid programs and other programs, such as Social Health Maintenance Organizations (SHMOs). Rural characteristics may pose barriers to implementing managed care. The inadequacy of service infrastructure reduces the range of home and community-based services necessary to contain hospital costs. Many rural areas lack experience with administering managed care. The small population pools of rural regions make risk contracts difficult to implement, while being an advantage for coordinating across providers. Coburn argues that coordination, rather than integration per se, may be more appropriate to the goal of developing rural long-term care systems. Cooperation is hampered, however, when professionals lack the skills to work in teams and when long-term care and acute care providers do not understand each others’ language. These themes are touched on by other authors.

Coburn argues for an increased role for the small rural hospital in long-term care. Grants for rural hospital flexibility programs have promise for helping hospitals to diversify. Recently, rural hospitals’ role in long-term care has been documented. During the period of 1987 to 1996, the proportion of rural hospitals providing swing beds, skilled nursing beds, or hospice beds increased by 25%; also increased were the proportion of hospitals involved in some form of services for the elderly, such as assisted living or retirement housing (University of Minnesota Rural Health Research Center, 1999).

The next article addresses financing issues. The objectives of long-term care models that integrate multiple sources of financing (Medicaid, Medicare, and private funds) are to modify eligibility requirements that differ by payment source, reduce service discontinuity caused when benefits are exhausted, and build incentives for providing the right types of services in the right amounts. States’ Medicaid programs historically have borne the brunt of public long-term care financing, and therefore many states have implemented Medicaid demonstrations to reduce or stabilize the rate of increase in long-term care expenditures (Muskie School of Public Service & The National Academy for State Health Policy, 1997. For a current listing of state waivers see the Health Care Financing Administration Web site: http://www.hcfa.gov). Saucier and Fralich (2001 [this issue]) discuss these financing demonstrations as they affect the incentives and efficiency of
long-term care. Integrated financing models may be demonstrated to improve service flexibility; provide appropriate incentives for substitution of less expensive care; reduce cost shifting across payer sources; and reduce, or at least slow the growth of, program expenditures in public financing. Fully capitated programs have been implemented by rural counties or regional providers as risk bearers. Alternatives and incremental approaches to fully capitated programs, such as expansion of the Primary Care Case Manager model (also known as managed-fee-for-service) to long-term care, may be more feasible for some rural communities. Several ongoing long-term care model developments among the states are discussed that may be appropriate for rural areas, including partial risk contracts.

The challenges of developing the appropriate mix of institutional and home-based services and of providing a seamless care system among primary care, acute hospitalization, and long-term care services for rural clients are discussed in the third article by Bolda and Seavey (2001 [this issue]). In the past, many acute long-term care integration models, such as SHMOs, relied on managed care organizational structures (Wiener, 1996). But stimulating managed care development in some rural areas has proved to be difficult because of a lack of managed care penetration in general, the financial risk of capitation within small populations, and limited systems of primary and acute care (University of Minnesota Rural Health Research Center, 1997). Although the second round of SHMO demonstrations does not include rural clientele, the organizational structures and preliminary findings of those SHMO II models are pertinent (Kane et al., 1997). Innovative rural examples of service development include some models mentioned in other articles and programs in Vermont, Maine, and Wisconsin.

Bolda and Seavey (2001) summarize the findings from these models that can be generalized to services development in other rural communities: local leadership and local control, cooperation and trust among partners, communication between medical providers and long-term care providers, limits on competition, efficient program management for small populations, and favorable federal and state policy. Although rural providers have a cooperative advantage by being few in number, even the most cooperative providers can develop only those services that are efficient to provide for the community, not all the services that may be needed.

Case management systems specifically serving rural long-term care clients have not been demonstrated much (Beaulieu & Hickman, 1994; Krout, 1996; Parker et al., 1992; Stoller, 1996). Schraeder and Britt (2001 [this issue]), in the fourth article, contrast various case management experiments and changes in programs for Medicaid, Medicare, and private pay long-term
care clients. The few programs that have served rural areas are described. Case managers may coordinate care across social and health services, across service providers, and across funding sources. Implementing case management in rural areas is affected by a lack of models that take into consideration both the unique needs of rural communities and clients and the limited number and types of professionals and services. Examples of case management in rural areas that are discussed include the Medicare Alzheimer’s Disease Demonstration, SHMO, the Program for All-Inclusive Care of the Elderly, several state programs, and Robert Wood Johnson-sponsored projects under the Medicare/Medicaid Integration Program (Riley & Mollica, 1995; Coburn, Bolda, Seavey, Fralich, & Curtis, 1998).

Some best practices that capitalize on the opportunities in existing rural service systems are presented. These best practices build innovative teams for client advocacy and coordinate services in a timely manner, often including the family in long-term care decisions. Schraeder and Britt (2001) describe varying case-management roles with clients and other providers. The nurse-case manager model has evolved over time, working within a geriatrics primary care team of the Carle Clinic in central Illinois to integrate geriatric acute and primary care with long-term home services.

Throughout the conference, the perspectives of state and federal policy makers and program administrators, and those of researchers, were brought into discussion of issues. The need for rural research that offers practical solutions for Medicaid, Medicare, and private programs was stressed. Issues in implementing programs and demonstrations differ by the type of rural area. Low population density and long travel distances provide different challenges for Western frontier areas than do the mountainous regions of southern Appalachia or farm communities in colder climates of the northern Midwest. The higher rate of penetration of managed care in western states seems to favor Medicare risk contracts with Health Maintenance Organizations (HMOs) relative to states with comparatively lower rates of HMO penetration (Casey, 1997). However, other factors, such as proximity to urban centers, the mix of manufacturing and agriculture in the economy, the richness of the local health system, and Medicare’s Average Annual Per Capita Cost rate for the rural region, may also create barriers or opportunities for rural managed care development (University of Minnesota Rural Health Research Center, 1997).

The last article (Kuder, Beaulieu, & Rowles, 2001 [this issue]) summarizes the rural long-term care research still to be undertaken. These perspectives were elicited from conference participants who represented diverse state and federal policy makers and rural researchers.
References


*Article accepted July 1, 1999.*
Joyce Beaulieu, Ph.D., M.P.H., is an associate research professor in the University of Kentucky Center for Health Services Management and Research and an associate faculty member of the Markey Cancer Center and the Sanders-Brown Center on Aging. She holds a joint faculty appointment in the Kentucky School of Public Health. Her research focuses on rural health care for cancer and other long-term care issues and on public health performance measures. She has extensive experience with evaluation of health policy and health care programs.

Graham D. Rowles, Ph.D., is a professor of geography, behavioral science, and nursing and an associate director of the Sanders-Brown Center on Aging at the University of Kentucky. His research focuses on the experience of aging in different environmental contexts. Recent publications include “Habituation and Being in Place,” in the Occupational Therapy Journal of Research, and “Effects of the Quality of Dyadic Relationships on the Psychological Well-Being of Elderly Care Recipients” (with B. Nunley and L. A. Hall) in the Journal of Gerontological Nursing.

Linda C. Kuder, Ph.D., M.Ed., is the associate director for education and community services for the Sanders-Brown Center on Aging at the University of Kentucky, the director for the Ohio Valley Appalachia Regional Geriatric Education Center, and the Co-PI for the Interdisciplinary Rural Training Program. She is responsible for overall policy and program development, program administration, budgetary oversight, and supervision for all educational and community services activities and staff at the Center on Aging.
Models for Integrating and Managing Acute and Long-Term Care Services in Rural Areas

Andrew F. Coburn
University of Southern Maine

States and the federal government are searching for new managed-care strategies, such as capitated financing and coordinated case management, that integrate the financing and delivery of primary, acute, and long-term care services. For rural communities, the development of organizational and delivery systems, which better integrate and manage primary, acute, and long-term care services, may help address long-standing problems of limited access to long-term care services. This article discusses the concept of integrated acute (medical) and long-term care service networks; model programs; challenges that health care providers, state policy makers, and others have faced in developing these new integrated structures; and the future of service-integration and coordination approaches in rural areas.

Introduction

Postacute and long-term care services for older persons and persons with serious disabilities are responsible for an ever-larger share of the costs of the Medicare and Medicaid programs. Driven by growing demand and the need to control expenditures, states and the federal government are searching for new managed-care strategies, such as capitated financing and coordinated case management, that better integrate the financing and delivery of primary, acute, and long-term care services (Health Care Financing Administration, 1995; Booth, Fralich, Saucier, Mollica, & Riley, 1997). Integration and managed care are viewed as encouraging a substitution of less costly and more appropriate home and community-based services for high cost medical and long-term care services, which have been heavily funded under fee-for-
service financing systems. To date, the states, which are the largest payers for long-term care services, have been the driving force behind the development of these new approaches (Weiner & Stevenson, 1998). Several states, including Arizona, Colorado, Maine, Massachusetts, Minnesota, New York, and Wisconsin, are experimenting with new managed-care models for the elderly and younger adults with disabilities who are dually eligible for Medicare and Medicaid.

For rural communities, the development of delivery systems which better integrate and manage primary, acute, and long-term care services may help address long-standing problems of limited access to long-term care services. The problems of long-term care are especially challenging in many rural communities where the delivery system has relied more heavily on nursing-home care and has been characterized by more limited service options, particularly in the areas of rehabilitation, residential care, and home care (Coburn & Bolda, 1999; Krout, 1998). In response to the incentives of the Medicare Prospective Payment System (PPS) and other market forces, many rural hospitals have developed or acquired postacute care services, such as home health agencies and/or skilled-nursing facilities, as a strategy for managing their inpatient use and diversifying their revenue base. Some rural hospitals have ventured into the world of long-term care as well, offering assisted living, adult day service programs, and respite programs or sponsoring meal sites for older persons. On one hand, there may be important opportunities to pursue integrated acute and long-term care system development in these communities where hospitals and communities have expanded the continuum of services beyond postacute care to include long-term care. Yet, there are also many challenges. Notwithstanding these challenges, there are emerging examples of rural networks and managed long-term care programs that offer important insights into the opportunities and challenges of using these approaches in rural settings. This article discusses the concept of integrated acute (medical) and long-term care service networks; some of the model programs that have been demonstrated; the challenges that health care providers, state and federal policy makers, and others have faced in developing these new integrated structures; and the future of integrated approaches in rural areas.

**The Concepts of Managed Care and Service Integration for Older Persons**

The expansion of managed care, together with more competitive purchasing behavior on the part of public and private purchasers, has spawned the
rapid development of health care networks and other organizational and health service delivery arrangements. This section discusses the concepts behind these new arrangements, their relevance and application to the development of integrated systems and managed-care models for acute and long-term care services, and the opportunities and challenges of developing managed-care approaches in rural areas.

**Managed Care and Service Networks**

As public and private purchasers have shifted their attention to competitive health care–purchasing models, the emergence and growing dominance of managed care has prompted a fundamental change in the nature of primary and acute-care integration and network development strategies. The development of managed-care models has effectively moved integration efforts beyond organizational strategies designed by providers to expand access to capital and improve cash flow to the development of functional and clinical integration strategies for service products designed to compete for buyers on the basis of cost and quality (Burns, Bazzoli, Dynan, & Wholey, 1997; Conrad & Shortell, 1996). Underlying these current network-development activities are the traditional managed-care precepts of: (a) a single care-management structure that manages care across settings and levels of care need; (b) scrutiny of user demand and utilization of services, with attention to relative costs and benefits of network services; and (c) introduction of management structures and financial incentives to influence providers’ attentiveness to the costs and quality of services rendered.

Embedded in the structure of these competitive managed-care models are extensive information systems, encompassing the multiple services of integrated systems and network providers, and increasingly sophisticated management capacity for analyzing individual consumer and physician behavior, resource use, and quality. Other key features of integrated systems in the medical care sector include the following: creation of clinical care guidelines and pathways and of quality management protocols, development of new governance and ownership structures, and, perhaps most important, system-level strategic planning and decision making which encompasses both the financing and delivery of medical services (Conrad & Shortell, 1996; Moscovice et al., 1996).

**Service Networks and Service Integration**

The restructuring of the American health care system is increasingly moving toward the development of organized delivery systems in which the
financing and/or delivery of hospital, physician, therapy, lab, and other services are integrated. In its simplest definition, the term integration means the bringing together into a more unified structure of previously independent administrative and service functions, services, and/or organizations (Bird, Lambert, Coburn, & Beeson, 1998; Leutz, 1999; Morris & Lescohier, 1978). Integration can occur at different levels of both the organization and the service system: policy, financing, structure, administrative, and clinical. There are a number of vehicles that promote integration, including organizational and service system planning, the development of integrated information systems that support administrative and clinical integration, integrated-care planning and management, and staff training (Leutz, 1999).

Organizations may engage in a combination of strategies to integrate medical and long-term care services. There is no clear continuum or hierarchy that can easily classify approaches to integration. To understand the concept of integration as applied to primary, acute, and long-term care, it is important to distinguish between what is being integrated (the target population[s] and scope of services), how functional and clinical integration occurs (types of integration), and the level of financial incentive and strategic management that is being achieved (degree of integration).

### Population Served and Scope of Services

Depending on the policy or management objectives, there may be differences in the target population(s) and the types of services that need to be integrated. For example, integration models targeting the well elderly are most likely to encompass the full range of primary- and acute-care services and limited postacute-care services (short-term skilled nursing, rehabilitation care, skilled-nursing facility services, and hospice care). If the frail elderly are the target population, then the scope of services must be broadened to include additional long-term care services, both institutional and home- or community-based, including personal care, transportation, assisted living, adult day care, and respite services. Which of these long-term care services are included in an integrated system will largely depend on the following:

- purchasers’ demands, including federal and state policy objectives and financial incentives;
- the local medical and long-term care service infrastructures; and
- existing service capacity relative to demand.

The breadth of integration generally refers to the number of different services provided along a continuum of care, and the depth of integration
generally refers to the number of different operating units in a system providing a given service (Shortell, Gillies, Anderson, Erickson, & Mitchell, 1993).

**Types of Integration**

Among the different types of integration, two are most relevant: clinical integration and functional integration (Gillies, Shortell, Anderson, Mitchell, & Morgan, 1993). Clinical integration is generally defined as the extent to which patient-care services are coordinated within and across organizational units. Functional integration refers to the extent to which administrative and other support functions and activities are coordinated within and across organizational units.

Clinical integration is perhaps the most important element of an integrated medical and long-term care system. With regard to long-term care, clinical integration is especially important as a means for achieving greater access to the full range of long-term care services through “downward” substitution of home- and community-based services for more expensive nursing home and other institutionally based care. At the organizational level, clinical integration may involve horizontal and/or vertical linkages among different types of service providers. There might be use of common patient-assessment tools, a common/shared medical record, quality assurance protocols, and/or the sharing of other clinical procedures or standards. Clinical teams and the use of care coordinators are also common strategies for achieving clinical integration.

Functional integration involves the sharing or coordination of support services across organizational units. Common financial management, human-resource management, marketing, strategic planning, information systems, and quality improvement are often vehicles for functional integration. Functional and clinical integration strategies may be pursued independently of each other.

**Degree of Integration**

There is no commonly accepted continuum or hierarchy defining or measuring degrees of integration. Various forms of integration are emerging which suggest a continuum (Conrad & Shortell, 1996). Two are most relevant to this article. The first is the classic form of vertical integration through common ownership: a hospital purchases a nursing home. The second form involves tight but changeable contractual relationships, as in the case of a managed-care organization: A hospital and a long-term care facility have contractual agreements but maintain separate ownership and governance.
Such contractual arrangements may be accompanied by formal affiliation agreements laying out areas of cooperation but maintaining separate ownership and governance. Varying degrees of integration may be represented in these different forms—the proof is in the specific arrangement and agreements. In general, however, the degree of integration defined by mutual financial incentives and strategic management is greatest where organizations have common ownership. Affiliations may approximate common ownership depending on the tightness of the affiliation arrangement. Contractual integration is the loosest of the forms.

**Why Integrate?**

Integration has become a paradigm for health care providers seeking to compete successfully in the rapidly expanding managed-care marketplace. The pursuit of integration has been premised on the assumption of both economic and clinical benefits. In theory, integrated models of financing and service delivery produce greater efficiency and cost savings (Shortell & Hull, 1996). By bringing the various components of the health system together, it is presumed that integrated systems can achieve economies of scale and cost reductions in both administrative and clinical areas. In addition, better care-management systems are expected to produce both cost savings through reductions in inappropriate care and improvements in the quality of care and outcomes (Gillies et al., 1993). For purchasers, including state Medicaid programs, integration of financing (Medicare and Medicaid) and service delivery (primary, acute, and long-term care) is seen as a way of aligning parts of the health system which, under fee-for-service payment arrangements, have tended to be cost-shifted from one payer to another. For consumers, integration is assumed to produce more convenient, accessible, and clinically effective systems by reducing the degree of service and system fragmentation that characterizes much of the medical and long-term care financing and delivery systems.¹

**Application to the Long-Term Care Sector**

Until very recently, trends toward greater system integration and managed care have proceeded along very separate tracks in the medical care and long-term care sectors. Networks and systems for care of persons with chronic care needs are in their infancy (Fox & Fama, 1996; Stone & Katz, 1996). Few integrated networks and systems include in-home and
nonmedical, residential, long-term care services. This is especially true for consumers whose needs exceed Medicare’s limited postacute care benefits and/or benefit period.

Acute and long-term care services vary on multiple dimensions and operate within very different frames of reference, not the least of which is the reality that acute-care costs are driven by intensity of services while long-term care costs are more sensitive to duration of services (Vladeck, 1994) (see Figure 1). Fundamental differences between the medical-care and long-term care systems contribute to the challenges of developing integrated, managed-care programs spanning these two sectors. In addition, unlike changes in the medical sector, neither Medicare nor Medicaid policies nor private purchasers have exercised much direct influence on system integration and the development of managed-care models within the long-term care sector. In the last 5 years, however, states have begun to search for new financing and service

---

**Figure 1. Differences in acute versus long-term care.**

models for controlling Medicaid-financed, long-term care costs through the application of managed-care principles and systems (Booth et al., 1997). Central to these efforts has been a growing recognition that integrating the financing and management of care across primary, acute, and long-term care services (and across the Medicare and Medicaid programs) is critical for controlling costs and assuring appropriate care for persons with chronic illness and disability who are the highest cost users of services. The basic features of these managed-care systems include the following:

- the development of financing arrangements that encompass medical and long-term care services and provide incentives for cost control across both services;
- incentives for the creation of service networks capable of providing or accessing the full range of covered services; and
- the development of care-management mechanisms necessary for assuring consumer-centered care, care quality, and the appropriate mix and use of resources or services.

These features are beginning to be reflected in demonstration programs, which selected states are implementing under federal Medicare and Medicaid waivers (Booth et al., 1997).

### Integration and Managed Long-Term Care Models: Making Them Work in Rural Areas

#### Selected Models

Despite growing interest in integrated models of acute and long-term care financing and service delivery, there are still relatively few operational examples of such programs to learn from. Rural models are even harder to find (Coburn, Bolda, Seavey, Fralich, & Curtis, 1998). The purpose of this section, therefore, is not to present a comprehensive inventory of programs and models but, rather, to highlight from a selected few of them the rural experience and issues.

#### Arizona Long-Term Care Services Program

In 1982, the Arizona Health Care Cost Containment System (AHCCCS), a statewide, mandatory Medicaid managed-care program, was initiated with the authorization provided by a Section 1115 Medicaid waiver. This program
covered only primary- and acute-care services. In 1989, Arizona expanded this Medicaid managed-care program to include long-term care services for elderly persons and persons with disabilities who are at risk of institutionalization. Known as the Arizona Long-Term Care Services Program (ALTCS), this program pays a capitated rate to contractors, who are at risk for a full range of Medicaid-financed, acute and long-term care services. For those with dual Medicare and Medicaid eligibility, Medicare is billed separately by providers (Riley & Mollica, 1995).²

Two of the ALTCS contractors are rural counties: Pinal and Cochise counties. These two counties represent rare examples of fully integrated, capitated, rural health care systems for the frail elderly and younger physically disabled adults. Elsewhere in Arizona, the significant managed-care penetration and the experience of the AHCCCS program provided the foundation for the ALTCS initiative. In Pinal and Cochise counties, however, the involvement of the County Health Department was essential for launching the ALTCS program because of the limited managed-care experience of most rural providers in these counties.

The Pinal and Cochise County long-term care programs represent a Medicaid-only approach to managed-acute and long-term care services. Both counties manage a capitated primary-, acute-, and long-term care service network serving frail elderly and younger physically disabled Medicaid clients. The counties’ acute-care networks include both rural and urban hospitals and rehabilitation facilities. Members are served by contracted primary-care providers who work with staff care managers. Long-term care services are provided through a contracted network of subacute-care providers, nursing facilities, home health, home care, and respite care providers.

The Community Nurse Organization (CNO) Demonstration–Carle Clinic

The Carle Clinic’s CNO demonstration represents a Medicare-only approach to managed-acute and long-term care (Schraeder & Britt, 1997). The Carle Clinic Association and the Carle Foundation represent a complex, integrated health system based in central Illinois. With a third partner, Health Alliance Medical Plans, Inc., a wholly owned subsidiary of Carle Clinic Association, they form the regional medical center for 8 million residents of mostly rural central Illinois. The Carle Clinic is one of four (and the only rural) sites for the Health Care Financing Administration (HCFA)–sponsored CNO demonstration.³ Initiated in 1992, this demonstration provides community-nursing and ambulatory-care services on a prepaid, partially capitated basis to voluntarily enrolled Medicare beneficiaries. This demonstration is testing
the provision of a specific, limited set of primary-care and postacute-care services under partial capitated financing. For Carle, this initiative is part of their collaborative practice model, using nurses as partners with patients, their families, and primary-care physicians.

**Program of All-Inclusive Care for the Elderly**

The Program of All-Inclusive Care for the Elderly (PACE) is a national program originally authorized on a demonstration basis under the Social Security Act. Under the Balanced Budget Act of 1997 (BBA), the PACE program was shifted from a demonstration limited to 15 sites to a permanent program treated as a provider type in the Medicare program and as a state plan option in the Medicaid program.

PACE is built on the model of integrated services developed by On-Lok Senior Health Services in San Francisco. Using a provider-sponsored model, the PACE program offers a full range of primary, acute, and long-term care services, including home care, nursing home, and hospital. Key program elements include case management provided by multi-disciplinary teams and day health centers where much of the care management, health status monitoring, and primary health care provision takes place. The PACE program targets persons at least 55 years of age who meet the eligibility standard for nursing-home care.

There are currently 20 operational PACE sites, with an additional 10 to 12 sites in the preoperational planning phase. One of the operational sites, Palmetto Senior Care, is sponsored by the Richland Memorial Hospital, based in Columbia, South Carolina (population 100,000), and it serves rural populations and areas in the counties surrounding Columbia. The other PACE sites are located in larger metropolitan areas.

**Social Health Maintenance Organizations (S/HMOs)**

In the S/HMO model, a single organizational entity is responsible under a capitation arrangement with the HCFA for managing a comprehensive package of integrated primary, acute, and long-term care services for older Medicare beneficiaries (Leutz, Greenlick, & Capitman, 1994). The original model targeted both healthy older Medicare beneficiaries and those needing long-term care services as a way of spreading the financial risk of the program. The long-term care benefit in the S/HMO is limited to those who are eligible for nursing-home care or at risk of institutionalization. The long-term care benefits are limited to home care and nursing-home care and
are accessed through a case-management function performed by the S/HMO. None of the original or expanded S/HMO sites serves rural populations.

**Wisconsin Partnership Program**

The Partnership Program includes an integrated program targeted to older persons (60 years plus) that is serving rural populations. Delivered through community-based agencies with expertise serving older persons, the Partnership Program includes many elements of PACE such as care management and capitation. However, day-center attendance is not required as it is in the PACE model. In addition, the Wisconsin Partnership Program varies from the PACE model by allowing independent physicians to work in an Independent Practice Association arrangement.

**Colorado Rocky Mountain Health Maintenance Organization**

The State of Colorado and the Rocky Mountain Health Maintenance Organization in Grand Junction have been planning for several years a demonstration to provide integrated primary, acute, and long-term care services to Medicaid and Medicare (dually eligible) beneficiaries in rural Mesa County. The original program design called for the plan to be paid a capitated rate inclusive of the costs of all primary, acute, and long-term care services. Like many of the demonstrations that are attempting to integrate the financing to include Medicare payments, there have been major problems working out the Medicare payment arrangements (Saucier & Fralich, 1999).

**Other State Initiatives**

There are a growing number of new state initiatives that seek to better integrate and manage the primary, acute, and long-term care services financed by the Medicaid and Medicare programs (Booth et al., 1997). In Monroe County, New York, for example, the Monroe County Community Coalition for Long-Term Care has created Continuum of Care Networks, which are designed to integrate services, capitate funding from public and private sources, and improve access to long-term care services (Booth et al., 1997). In Maine, the Medicaid program has developed the MaineNET program, which will use a primary care case-management model to promote greater integration and management of the full range of primary, acute, and long-term care services. As states continue to search for ways to control their long-term care costs, we are likely to see more innovative models emerge that seek to integrate the financing and delivery of services in both urban and rural areas.
The Rural Issues: Is the Rural Medical and Long-Term Care System Ready for Integration?

With few exceptions, these and other state initiatives target urban rather than rural populations, at least initially. With only limited examples of rural integrated managed-acute and long-term care programs, there has been very little research attention paid to the questions of whether and how such programs might be developed in rural areas and of the effects they could have on rural beneficiaries and health care systems. From 1996 to 1997, the Maine Rural Health Research Center undertook a study of three rural examples of integrated programs: the ALTCS, the CNO demonstration at the Carle Clinic in Illinois, and the Copley Health System in Morrisville, Vermont. The case studies of these initiatives, which are described in greater detail elsewhere in this issue (Bolda & Seavey, 2001), revealed a number of important problems and lessons regarding the application of current integration models in rural areas and implications of integrated structures for the delivery of services in rural areas.

There is a growing literature on rural managed care, which, although not specific to acute and long-term care integration, is nonetheless relevant to the question of whether managed care will expand into rural areas and, if so, with what impact (Christianson, 1998; Krein & Casey, 1998). This literature, together with the research to date on integrated acute and long-term care systems, suggests that there are a number of critical issues for states and rural communities to consider as they contemplate ways of redesigning the financing and delivery of services to achieve better integration, access, and quality. Although many of these issues can be characterized as barriers to integrated financing and service-delivery approaches in rural areas, there are some that, based on the experience to date, may also represent opportunities.

Integration Costs Money

The development of integrated acute and long-term care programs is expensive, requiring an intensive investment of capital and organizational leadership that is often lacking in rural areas (Kane, Illston, & Miller, 1992). For example, it has been estimated that PACE programs require between $1 to $1.5 million in start-up capital to cover the fixed costs of facility renovations and the initial operating losses that inevitably occur as the program moves to full enrollment (State Workgroup on PACE, 1999). The development of the organizational, administrative, and clinical systems needed to integrate and manage care, especially in a capitated or risk-based financing system, is well beyond the capacity of the average rural provider or health system.
Rural hospitals have often been the financial engine for health system development in rural communities. There is a dilemma, however, regarding hospital involvement in the development of integrated primary, acute, and long-term care systems. On one hand, the hospital’s financial and administrative clout is needed to support the development of these new systems. Yet, given their predominantly medical orientation, hospitals may not be the most appropriate provider base for the development of an acute and long-term care network. Nor can hospitals be expected to take the lead in initiatives that will target them for cost reductions.

In some rural communities, financial pressures on small rural hospitals and other health care providers may restrict access to the financial resources needed to develop the critical administrative and clinical systems that are central to an integration strategy. Many rural hospitals have fared very well in recent years under the Medicare PPS system, and they have invested heavily in the development of expanded rural health networks as a strategy for survival in the increasingly competitive world of managed care. For example, more than 65% of all rural hospitals have developed or acquired home health agencies; more than a third of rural hospitals own both a home health agency and a skilled-nursing facility. The effects of repeated cuts in hospital payments and payments to other providers, however, especially following the payment policy changes enacted as part of the BBA, may reduce the ability of rural hospitals to invest in strategies and programs for achieving greater integration across the primary, acute, and long-term care sectors (Rural Policy Research Institute, 1999).

Rural Providers Have Limited Managed-Care Experience

Coupled with the problem of the large capital investments needed to develop these programs is the reality that most rural providers have had very limited experience with managed care and therefore are not likely to be inclined or prepared to participate in managed-care programs for high risk, vulnerable populations such as the frail elderly.

Limited Services and Service-Delivery Mechanisms in Rural Areas

To adequately address the complex health care and social support needs of frail, older persons, programs that seek to integrate acute and long-term care services in rural areas must deal with the common service limitations that
exist in many rural areas. Not only is service availability crucial to the ability of plans to offer the full range of services included in the scope of benefits, but having sufficient providers in an area is also important for plans to be able to negotiate fee discounts and/or deal with quality-of-care problems, should they arise. Access to specialty services, such as physical therapists, psychiatrists, and transportation, is among the most significant hurdles that must be overcome. In addition, programs must recognize that transportation and other costs are often higher in rural areas, making capitation and other risk-bearing financing arrangements more complicated. From a plan perspective, achieving cost savings in rural areas is likely to be more difficult because of these higher costs. In general, savings are harder to obtain in rural areas as well because there is less “fat” in rural health systems.

The experience to date suggests that rural integrated programs are most likely to be developed through partnerships between rural medical and long-term care service providers and larger organizations such as county health systems, hospitals, and/or managed-care organizations. The model of urban-based providers reaching out into surrounding rural areas to establish local satellite programs is one that may fit in a number of rural areas. In this way, the rural sites may gain access to a broader range of specialty and other services than could be developed locally.

Rural Means Small

What are the advantages and disadvantages of the small population base of most rural areas? On one hand, a small population base of most rural areas makes it difficult if not impossible to consider financing strategies that shift a substantial portion of the financial risk for health care use and costs to rural providers. The small numbers of beneficiaries, together with the unpredictable and volatile nature of health care needs and use in a small population (and especially with a population such as the frail elderly), make such strategies impractical.

But there may also be some benefits of small population size that could be an advantage for rural communities and providers. In smaller communities, where medical and long-term care service providers are likely to know their clients and provider colleagues better, care management across systems may be easier to achieve than in urban settings. Moreover, in smaller communities, health and long-term care providers must work together on a regular basis, which may make it possible to achieve cooperation more easily than in more complex organizational environments.
Aligning the Incentives and Professional Culture

Currently, there are few incentives for communities, medical and long-term care providers, or health plans to develop programs that integrate long-term care into the continuum of primary and acute care services. The incentives for hospitals under the Medicare PPS and continued cost reimbursement of postacute care (until the recent BBA changes) propelled hospitals and health systems to add home health care and, in some cases, skilled-nursing facility care to their continuum of health services. Few have ventured into the arena of nonmedical home care, residential care, and other long-term care services, however. The primary reason is that there are few financial or other incentives for doing so.

It is hard to overestimate the importance of state policy in shaping the strategies that health plans and providers will take in forming service networks that better integrate the delivery of primary, acute, and long-term care services. In states like Minnesota, Wisconsin, and elsewhere, where the Medicaid and state long-term care programs have been active in developing new financing and managed-care arrangements for the chronic-care population, there is a far greater likelihood of rural participation and experimentation with different program models.

It seems quite clear that integrated networks that encompass the full range of services are most likely to form when the prospects of managed-care contracting are real.6 The specific characteristics of these networks, including the scope of services included and the nature of the relationships among them, will be determined by the nature of those contracts. Contrary to common perceptions, the experience of Arizona, Wisconsin, and other states indicates that some rural communities not only are prepared to respond to these challenges but also represent valuable testing grounds for learning what works and what does not in this very new arena of integrated acute and long-term care services.

Differences in professional cultures and distrust between those who provide medical services and long-term care services are fundamental problems in integrating the financing and delivery of services across these two sectors. Traditionally, long-term care providers are more comfortable with models of care that emphasize the use of social support services to maximize independence and quality of life. Conversely, for many medical providers, inexperience in working with the long-term care sector can often be a barrier to effective communication and collaboration.
Do Organizational and Ownership Structures Matter?

The experience to date indicates that organizational structure differs significantly among integration initiatives and that structure may be important in facilitating the development of both functional and clinical integration, two critical, necessary conditions for effective managed-care organizations. At one extreme, there are consolidated ownership structures, such as those represented by the Carle Clinic and other integrated delivery systems, that enable providers to pursue system redesign with minimal negotiations with other interested organizations. In the case of the CNO demonstration, this consolidated ownership structure has contributed to their ability to integrate care management and administrative functions central to the demonstration. At the other extreme, the Arizona experience demonstrates that ownership is not a necessary condition for success; both Pinal and Cochise counties successfully contracted for services, most of which fall outside county-operated health services. This network of services operates, however, within a tightly defined set of state and county regulations and contractual arrangements.

Perhaps more important than organizational and ownership structures are the problems that distance poses for the integration of clinical and administrative services. Physical proximity and, preferably, colocation of providers are highly desirable in encouraging effective communication. Where this is not possible, information systems and communication technologies become important. Long distances among providers make the care-management process more challenging. Establishing both formal and informal information and communication systems is critical to effective care management in these circumstances.

The Future of Medical and Long-Term Care Integration in Rural Areas

Is Integration the Gold Standard?

Typically, integration strategies involve the creation of new programs or organizational units where financial, staff, and other resources from multiple systems are pooled. The PACE and S/HMO demonstrations are good examples of such fully integrated models. The expansion of these models in rural settings remains uncertain. States and providers may seek to develop rural PACE or PACE-like programs and/or sites now that the PACE program has
been opened to further expansion. But do these models conform to the realities of most rural areas? In most cases, the answer to this question is no. Yet, this does not necessarily mean that rural communities and health and long-term care providers cannot pursue efforts to improve the provision of primary, acute, and long-term care services.

Integration is not necessarily the gold standard for improving the care of older persons. Other strategies that involve linkage or coordination approaches may be just as effective and certainly more feasible in most rural areas (Bird et al., 1998; Leutz, 1999). Rural providers already engage in a great deal of linking behavior that connects rural consumers to the medical and long-term care services to which they are entitled. To encourage this behavior, rural health care providers must understand the eligibility requirements for long-term care services and actively screen consumers to assess their needs and eligibility for such services. One strategy for system improvement in rural areas is for rural medical and long-term care providers to develop more systematically the knowledge and support systems needed to expand and improve these linkage strategies.

Coordination represents a more formal approach to service linkage. A coordination strategy involves the development of explicit structures, systems, and protocols for linking consumers to services and managing their care (Leutz, 1999). There can be different components to a coordination strategy, ranging from the coordination of benefits to the development of mechanisms that share clinical information among providers. The Carle Clinic’s CNO demonstration and Maine’s MaineNET initiative represent examples of programs that rely on a coordination strategy. Although there is usually a designated organization and staff responsible for managing the coordination process, coordination differs from integration by maintaining the autonomous roles of separate organizations and structures.

In the final analysis, integration is not an end in itself. Rather, it is a means toward the goal of improving the care of older persons by enhancing timely access to appropriate and high quality health and long-term care services. In rural areas, where integration is a noble but difficult goal to achieve, incremental linkage and coordination approaches may be more appropriate and effective.

*The Effects of Medicare Policy: Barriers or Opportunities?*

The BBA of 1997 contains numerous policy changes with important implications for rural health systems. On one hand, the BBA made changes in Medicare payment policies for hospital inpatient and outpatient services,
home health, and skilled-nursing facilities, which, if they result in the payment reductions to rural hospitals that some are anticipating, could seriously undermine the financial strength and viability of some rural hospitals. On the other hand, the BBA also contains important provisions aimed at strengthening the rural health infrastructure, namely the Rural Hospital Flexibility (Critical Access Hospital [CAH]) Program and changes in the methodology for calculating the average-area-per-capita cost, which is used to pay health plans for Medicare beneficiaries enrolled in risk-based managed-care plans (Rural Policy Research Institute, 1999). Although it is too early to know how rural providers and health systems will be affected by these important changes, the uncertainty and concern that the payment policy changes have created will affect the willingness of some rural hospitals and other affected providers to seek to develop new and innovative integrated primary, acute, and long-term care programs. Yet, for some providers, the development of programs that link or integrate acute and long-term care may be just what is needed to preserve the local rural health infrastructure.

The Rural Hospital Flexibility Program, in particular, offers to some communities served by smaller rural hospitals the opportunity to reconfigure their health system to address the broader continuum of long-term care needs. The Rural Hospital Flexibility Program creates a new category of hospital, the CAH, that provides a different range of services than is normally required of an acute care hospital. Specifically, hospitals meeting the CAH designation criteria will be limited to 15 beds (plus 10 swing beds) and can provide services to patients for only up to an average of 96 hours. Under the Rural Hospital Flexibility Program, the state and federal designation of CAHs must be done within the context of an approved, state, rural health development plan, in which states have the broad authority to assess the needs and problems of rural health systems and to provide financial assistance to rural providers and communities so that they can begin addressing those needs and problems. Under the Rural Hospital Flexibility Program, states will receive annually $25 million in federal support for these planning and technical-assistance activities.

The framework of the Rural Hospital Flexibility Program provides states and rural communities with an important opportunity to go beyond planning for the transition of small, distressed, rural hospitals to consider strategies to strengthen the continuum of primary, acute, and long-term care services. In doing so, providers and communities must realize that there is no single managed-care model that fits all places and circumstances. In fact, the diversity of approaches that is being taken currently is likely to be very helpful in sorting out what works and what does not. This diversity is particularly
important to rural areas, many of which are likely to require programmatic improvisation to make managed care work. It is especially important that states, the federal government, health plans, and others provide flexibility to rural communities and providers in meeting program standards.

Many rural communities and providers will need considerable technical and financial support to enable them to effectively participate in these new initiatives. The Rural Hospital Flexibility Program provides an excellent vehicle for linking communities and providers to that needed support. Technical support may be needed to assist providers and communities to assess their needs and current capacities and to develop appropriate organizational relationships or alliances, contracting arrangements, financial management systems, information systems, and quality assurance capacities. The need for technical assistance is especially critical among rural long-term care providers, most of whom have even less knowledge of and experience with managed care than providers in the medical and postacute care sector.

As the cases in Arizona demonstrate, it is possible for smaller, rural plans to assume risk for inherently risky populations and costly services. The context and managed-care history of a particular rural area are critical for determining whether and how far a community and its health system can go in meeting the organizational, financial, and clinical management challenges inherent in integrating the financing and delivery of primary, acute, and long-term care services. In most cases, however, there will be a need for flexible risk sharing and/or financial protection options. Specifically, the development and testing of partial capitation, risk sharing approaches, primary care case-management models, and other payment arrangements is needed. Stop-loss and reinsurace protections may also be needed to assure that rural providers are appropriately protected from catastrophic losses and that consumers are shielded from the risks of quality-of-care problems associated with underservice stemming from inappropriate financial incentives.

The infrastructure of local support services for the elderly is particularly fragile in many rural communities. Developing financing and service-delivery arrangements that protect and strengthen the ability of local providers and organizations to participate in these new managed-care initiatives is especially important. The experience in Arizona demonstrates that managed-care initiatives can serve the interests of rural communities in preserving and building their medical and long-term care infrastructure by identifying and addressing service gaps, encouraging the development of local services and organizations, and building organizational alliances that strengthen the local service system.
State Long-Term Care Policy: The Defining Moment?

The experience with models that integrate the financing and delivery of primary, acute, and long-term care services is limited, especially in rural areas. This is likely to change, however, as states expand their long-term care reform programs. The HFCA and the Robert Wood Johnson Foundation are both sponsoring demonstration programs that seek to develop innovative programs to better manage the care for older persons and persons with disabilities who are dually eligible for the Medicare and Medicaid programs. Moreover, a number of states are engaged in significant long-term care system-reform efforts, the key features of which include the expansion of noninstitutional care alternatives (e.g., home care, nonmedical residential care) for at-risk individuals; the development of financing approaches that support better management of complex medical and social support needs and problems; and better coordination or integration of services across the primary, acute, and long-term care systems.

These state initiatives may or may not create incentives and/or a framework for health and long-term care system reform that are appropriate to the circumstances and needs of rural communities and health systems. It is critical, therefore, that states and the federal government carefully consider the special circumstances and needs of rural communities, providers, and consumers as they develop and undertake these initiatives. The experience to date is limited and indicates that there are numerous challenges to overcome in rural areas. Yet, it is clear from states like Arizona that it is feasible for rural areas to apply new approaches to health and long-term care financing that create incentives and mechanisms for coordinating and integrating services across the continuum of medical and long-term care services. Furthermore, there is evidence that these initiatives can have beneficial effects in strengthening both the medical and long-term care infrastructure in rural areas.

Notes

1. Despite the enthusiasm for organizational consolidation and integration in the health system over the past decade, there is interestingly little research to indicate that these benefits have been attained as a result of the restructuring that has occurred.

2. The majority of Arizona Long-Term Care Services (ALTCS) participants are dually eligible for Medicare and Medicaid. Most Medicare beneficiaries are in the fee-for-service system, which, to a degree, provides a safety valve for providers who are capitated under the Medicaid ALTCS program.
3. Abt Associates is currently completing an evaluation of the Community Nursing Organization demonstrations for the Health Care Financing Administration. These demonstrations are scheduled to terminate, but the current sites are seeking Congressional support for their continuation.

4. These numbers are the authors’ calculations from the American Hospital Association’s Annual Survey of Hospitals.

5. The other side to this coin is that some fear that linkages with urban-based plans or providers may undermine the ability of rural providers and health systems to control their own futures (Amundson, 1993).

6. The recent volatility in the managed-care market, and especially in the Medicare managed-care program, has led many plans to leave rural markets. This trend, if it continues, could have a significant effect on the development of a rural integrated network if states are unable to secure managed care organization partners.

References


*Article accepted July 1, 1999.*

*Andrew F. Coburn, Ph.D., is a professor and the director of the Institute for Health Policy, Muskie School of Public Service at the University of Southern Maine in Portland, Maine.*
Financing and Payment Issues in Rural Long-Term Care Integration

Paul Saucier
Julie Fralich
University of Southern Maine

A major concern with fee-for-service reimbursement is that it forces consumers into predefined categories of service, whether or not those services meet their needs. The urban response to these incentives has been to experiment with capitated Medicare and Medicaid payments that integrate acute and long-term care funding. Although the use of capitation payments has conceptual and intuitive appeal, this article analyzes whether it is feasible in rural areas. Integrated financing systems for rural areas must meet the specific goals of people served in the areas and be compatible with local market conditions. Full risk capitation may be most applicable to urban settings where managed-care infrastructures are better developed and where risk can be spread over large numbers of consumers. Alternatives to fully capitated financing are emerging and represent more viable approaches for rural communities.

Introduction

A major concern with fee-for-service reimbursement is that it forces consumers into rigid categories of service, whether or not those services truly meet their needs. This is a particular concern when long-term care is needed, because community-based long-term care services tend to be underfunded, resulting in overuse of substitutes that are expensive and medical in nature, such as hospital, nursing home, and home health care. The hope of integration is that consumers will get the appropriate level of care when they need it. This is premised on a fundamental reordering of financial incentives, in which providers are financially motivated and work together to substitute high-touch for high-tech services whenever clinically appropriate.

AUTHORS’ NOTE: This study was funded by a grant from the federal Office of Rural Health Policy, Health Resources and Services Administration, DHHS (Grant #000004-05). The conclusions and opinions expressed in the article are the authors’ and no endorsement by the University of Southern Maine or the funding source is intended or should be inferred.

The Journal of Applied Gerontology, Vol. 20 No. 4, December 2001 409-425
© 2001 The Southern Gerontological Society
The urban response to perverse fee-for-service incentives has been to experiment with capitated Medicare and Medicaid payments that integrate acute and long-term care funding. This payment method creates flexible pools of dollars at the plan or provider system level which are to be used to provide what the consumer needs when the consumer needs it, regardless of whether it appears on a list of approved services. In addition to providing flexibility, capitation reverses the incentives: Hospital days and long-term nursing-home stays become costly services to use sparingly, while subacute care, ambulatory care, home care, and various forms of residential care become attractive substitutes demanded by the plan, stimulating development of the marketplace with little need for government planning.

Combining Medicaid and Medicare funds also integrates the acute and long-term care financing and reduces opportunities for cost shifting. For example, current implementation of prospective reimbursement for Medicare home health is expected to result in a cost shift to Medicaid home health, particularly for higher cost beneficiaries who need more service than agencies can provide within Medicare reimbursement limits. For dually eligible beneficiaries, agencies may be able to move patients from Medicare to Medicaid funding streams.

Can capitation really work such wonders for rural long-term care systems? To date, there is precious little experience with capitated, integrated care, and what does exist is mostly in urban areas. Although the intuitive appeal of capitation is undeniable, we should carefully analyze whether it is feasible in rural areas and what its implications are for various stakeholders in rural health care. Rural health program designers must ensure that the payment and financing systems they develop are able to do the following:

- support specific program goals and
- be compatible with available service delivery vehicles and local market conditions.

Financing and Payment Must Support Specific Program Goals

Any financing and payment system for an integrated long-term care system must be tailored to meet the specific goals of the program and the people and the area served by the program. A key question is whether rural integration projects share the goals of the urban demonstrations undertaken to date. Common goals have included the following:
• To pay plans and providers fair and reasonable amounts, while promoting efficiency and financial accountability;
• to diminish opportunities for cost shifting between acute and long-term care;
• to provide incentives for high quality of care; and
• to support the right care at the right time generally, and to encourage the use of home- and community-based services specifically.

Integration of multiple funding streams (e.g., Medicaid, Medicare, state-funded home care, Older Americans Act services, etc.) through capitation is attractive because it is at least a theoretically straightforward approach that can support all the goals above, particularly if the goals are specifically considered in determining the specifics of the capitation.

It may be, however, that the goals of a rural integration project are different from or in conflict with the goals listed above and that capitation is therefore unnecessary or likely to produce unintended results. Program-specific goals in rural areas are likely to be modest and incremental. For example, goals of a rural program may include the following:

• To protect local providers, such as hospitals and nursing homes. In many rural communities, the cumulative pressures of Medicare prospective hospital payments, declining Medicaid Disproportionate Share Hospital payments, and recently implemented skilled nursing and home health prospective payments threaten the financial viability of facilities and agencies that comprise the heart of the health care system and are often the largest employers in the community. Depending on how the payment is structured, capitation could result in lower payments to these providers, because managed-care organizations typically seek discounts from providers.
• To develop a managed-care infrastructure. In some rural areas, a specific goal will be to move toward managed-care principles by stimulating the development of an integrated service delivery and financing infrastructure. This may include the development of provider networks to coordinate service delivery; the reorganization of medical staffs to monitor service use and quality across a spectrum of services; and the development of administrative systems to gather data, pay providers, and assume some financial risk. In instances where entities do not exist or are not strong enough to bear full risk under capitation, other incremental approaches may need to be considered.
• To expand access to services generally. In many rural areas, health services are in short supply generally. Capitation is not likely to solve a general health supply shortage problem. In general, managed-care entities depend on the opposite being true: They extract discounts from health providers who have excess capacity and are therefore willing to negotiate discounts in return for volume. Integration through capitation also presumes a downward substitution of services, and it is not designed to expand services across the board.
Financing and Payment Must Be Compatible With Available Service Delivery Vehicles and Local Market Conditions

Conceptually, it is possible to envision and design integrated service and financing systems that meet the particular goals of a rural community. In practice, the organizational structures and financing systems must be compatible with available service delivery systems, local market conditions, and the historical practice patterns in the area. Although a lot of attention has focused on the issue and need for integrated financing approaches, an important question for rural areas is whether an organization can build the appropriate administrative, management, and organizational systems to support integrated financing. If not, the typical urban financing arrangement will not apply to a given rural integration effort, and attention will need to be given to one or more of the alternatives discussed below. Risk-bearing integration vehicles that have emerged to date include commercial plans (including those that have Medicare risk contracts), Medicaid plans (including those formed by counties), and various forms of provider-sponsored plans.

Commercial Plans (including Medicare+Choice plans)

In areas with heavy or growing managed-care penetration, commercial health plans have emerged as organizations willing to take on risk-based long-term care integration. These have included Medicare plans, formerly known as Medicare Health Maintenance Organizations (HMOs) or TEFRA (the federal Tax Equity and Fiscal Responsibility Act of 1981) HMOs, now known as Medicare+Choice plans under the Balanced Budget Act of 1997 (BBA). Until the requirement was eliminated by the BBA, Medicare plans were required to have at least 50% commercial enrollment.

The Texas Star+Plus demonstration is a recent example of a program that is integrating financing through commercial plans (University of Maryland, Center on Aging, 1999). The state contracts with three commercial HMOs and pays them a capitation for most Medicaid services, including long-term care. The demonstration is located in Harris County, dominated by Houston, the fourth largest city in the country. The area was chosen by state Medicaid officials in part for its highly competitive market conditions and also because Harris County’s Medicare managed-care rates are above the national average. About half of the 54,000 beneficiaries targeted for Star+Plus were dually eligible for Medicare and Medicaid, and the state wanted at least two of their plans to have Medicare risk contracts with the Centers for Medicare and Medicaid Services (CMS) so that full financial integration of Medicare and
Medicaid payments could be achieved at the plan level. Because Medicare law guarantees a choice of fee-for-service to Medicare beneficiaries, however, financial integration is not assured in this piggyback model: In the first year of the program, most dually eligible Star+Plus members have retained fee-for-service Medicare.

Clearly, a number of urban factors influenced the financing scheme developed for Star+Plus, making it difficult to export to rural areas.

- The Houston market is huge, and commercial plans are competing fiercely for market share.
- The state was able to offer plans a very large risk pool of 54,000 lives, since a mandatory enrollment policy guaranteed full participation among beneficiaries.
- Medicare managed-care rates were above the national average in Harris County, offering rewards to plans that could receive capitated Medicare and Medicaid payments.

Like Texas, Maine had originally been drawn to Medicare HMOs as a convenient vehicle for integrating Medicaid and Medicare payments, but when an already small managed care market began contracting in the 1990s, the state had to consider alternative models for the MaineNET demonstration project. As a result, the Maine demonstration was redesigned to reflect the local market conditions. At this time, a primary care case-management (PCCM) model is under development as an incremental approach to integration of services in a rural county in Maine (Maine Department of Human Services, 1999).

To date, Medicare HMOs have had very little presence in rural areas generally. This was due in large part to the relatively low Medicare capitation rates in rural areas, derived from fee-for-service average expenditures that have been historically lower in rural than in urban areas. The BBA reduces the gap between rural and urban rates by gradually blending national and local averages. Rural areas with Medicare expenditures below the national average should see their rates rise, possibly making them more attractive to Medicare+Choice plans in the future. However, it is still too early to tell what the market response will be.

In a Colorado demonstration involving a Medicare HMO, the BBA had a negative impact on Medicare rates and has forestalled the full financial integration originally planned for Mesa County, an area on Colorado’s western slope that is largely rural. The proposed contractor, Rocky Mountain HMO, currently receives a Medicaid capitation from the state for primary and acute care and has had a Medicare cost contract with the CMS for several years.
Under the Colorado Integrated Care and Financing Project, Rocky Mountain HMO would have converted its Medicare cost contract to a risk contract, making it eligible for capitated Medicare payments from the CMS, and the state would have added it to its existing capitation funding for Medicaid and state-only long-term care services. However, the BBA resulted in a lower Medicare rate than originally projected for the demonstration, making a Medicare capitation unfeasible (University of Maryland, Center on Aging, 1999).

**Medicaid Plans (including counties)**

As an alternative or supplement to commercial plans, Medicaid plans may offer a vehicle for risk-based integration. Options include adding long-term care to existing Medicaid primary and acute care plans, as Minnesota did to create its Senior Health Options program, or creating comprehensive plans through counties or other governmental entities that already have a stake in the long-term care system.

Minnesota contracts with three plans in its Senior Health Options (MSHO) demonstration, building on its longstanding Prepaid Medical Assistance Program (PMAP). Under PMAP, plans receive a Medicaid capitation for primary and acute care. The state recognized that, for dually eligible beneficiaries, PMAP addresses only a small portion of care, because long-term care services and Medicare services were not included in the capitation. The state developed a voluntary integrated option for dually eligible elderly beneficiaries that adds long-term care to the Medicaid capitation and triggers a capitated Medicare payment from the CMS to the plan (Booth, Fralich, Saucier, Mollica, & Riley, 1997).

In Arizona, prior to the creation of the Arizona Long-Term Care System (ALTCS) in 1989, counties were responsible for long-term care services. Arizona was the only state not offering Medicaid long-term care services, having only begun accepting federal matching dollars for primary and acute care in 1982 with the creation of its 1115 Arizona Health Care Cost Containment System. When the state proposed adding the ALTCS as a fully capitated primary, acute, and long-term care Medicaid program for low income residents with significant long-term care needs, many counties, including some in very rural parts of the state, created risk-bearing organizations to accept the capitated payments, which would include federal Medicaid matching funds for the first time. ALTCS-authorizing legislation recognized the unique historical role of counties by designating two urban counties (Maricopa and Pima) as the state’s exclusive ALTCS contractors in the Phoenix and Tucson...
areas, and the remaining 13 counties were given first right of refusal in their areas (McCall & Korb, 1994). The lesson from Arizona is that risk is relative. With the promise of additional federal dollars and continuing control of the long-term care system, taking a capitation was a feasible and manageable option.

**Provider-Sponsored Organizations**

Since the passage of the BBA, the term *provider-sponsored organization* has gained new attention as a type of managed-care entity newly eligible to participate in the Medicare managed-care program. Here, we use the term more generally to refer to a provider-based organization that accepts risk for a comprehensive set of services through capitated payments.

The Program for All-Inclusive Care for the Elderly (PACE) is an early example of a provider-based approach to risk-based integration that may be viable in some rural areas. Currently, at least one site, Palmetto SeniorCare, based in Columbia, South Carolina (population around 100,000), serves a sizable surrounding rural area. Designed to serve exclusively people whose needs qualify them for a nursing-home level of care, traditional PACE sites offer community-based long-term care through staff physicians and interdisciplinary team members who have efficient access to members through their attendance at day centers. A site receives capitated Medicaid payments from the state and capitated Medicare payments from the CMS, and it is financially responsible for all care, contracting with hospitals and nursing homes for those services.

PACE programs require significant start-up capital, estimated at $1 to $1.5 million (State Work Group on PACE, 1999). Start-up costs include capital renovation of a day center and operating losses for about the first 18 to 24 months, when centers operate below break-even census. In the early days of the PACE demonstration, many of these costs were supported by the Robert Wood Johnson Foundation, but new sites starting today must raise the capital. Many PACE sites are sponsored by hospitals. It is unclear whether PACE sites could be viable without an urban base. Because PACE has a relatively narrow target group (dually eligible beneficiaries who are Medicaid eligible, nursing-home certifiable, and at least 55 years of age) and is entirely voluntary, sites have found it a constant challenge to maintain and exceed the break-even enrollment of 250 to 300. Assuming no greater than 25% penetration, existing sites advise launching a program only if at least 1,000 potential members live in the service area (State Work Group on PACE, 1999).
A Range of Financing and Payment Strategies

The appeal of fully capitated financing models is conceptually attractive. Capitation offers a flexible funding pool, and, if multiple payers participate (most importantly, Medicaid and Medicare), perverse incentives to shift costs and use expensive services are diminished. Most experience with capitation, however, is in urban areas, or at least in areas with an urban base. It may be that to achieve some degree of integration in rural settings (or at least better coordination of services), alternatives to full capitation will be necessary.

Financial integration can be thought of as a continuum ranging from full capitation of all services to coordinated fee-for-service incentives, with many variations and combinations in between. Although a single capitation rate is often viewed as a necessary feature of a fully integrated system, there are, in fact, many other financing and payment options available. Table 1 provides a summary of the financing options that are currently available or under consideration for integrated long-term care service delivery systems. In fact, some of the more modest and incremental approaches may be more suitable and desirable for rural areas.

In the area of long-term care in particular, the situation is complicated by the different payers and their rules and regulations (e.g., Medicare payments for primary, acute, and skilled-level care; Medicaid long-term care payments; nutrition and other services funded through the Older Americans Act; private insurance that extends Medicare or provides long-term care coverage). In this section, we will explore some of the Medicare and Medicaid financing options that are available and how they may meet the needs of rural areas.

Full Capitation

Full capitation is the type of payment most often cited in discussions of financial integration and certainly in the private commercial market; this is the usual method for integrating payments and services. In a fully capitated plan, payments for all services are computed on a per-person basis, and an all-inclusive rate is paid to a single entity that is financially responsible for the risks (profits and losses) associated with the capitation amount. To accept a capitated payment, an organization must have appropriate administrative, management, and organizational systems. These include the ability to establish a network of providers and make payments to them, the ability to influence practice across those providers to meet quality assurance standards of the payers, systems capacity to monitor service use and meet specified
<table>
<thead>
<tr>
<th>Financing Options for Long-Term Care Integration in Rural Areas</th>
<th>Key Feature</th>
<th>Risk Management</th>
<th>Pros/Cons for Rural Areas</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional fee-for-service</td>
<td>Services paid on a per-unit basis.</td>
<td>No risk to providers. Services coordination or management is minimal.</td>
<td>Supports current delivery system. Flexibility to substitute community-based services for higher cost acute-care services is limited.</td>
<td>Medicare Community Nursing Organization demonstration.</td>
</tr>
<tr>
<td>Managed fee-for-service/coordination</td>
<td>Uses fee-for-service system but strengthens the management and coordination of services. Primary care provider (PCP) or care partner coordinates and authorizes service use.</td>
<td>Little risk to providers or payers.</td>
<td>Provides an incremental approach to integration of services. Viable option in areas with low managed-care penetration.</td>
<td>PCCM programs expanded to include long-term care coordination, such as MaineNET.</td>
</tr>
<tr>
<td>Partial capitation</td>
<td>Some but not all services are included in the capitation payment. Partial capitation may be from Medicare and/or Medicaid.</td>
<td>Organization needs capacity to manage/monitor services. Responsibility for risk management, quality oversight, and payment</td>
<td>Promotes cost consciousness and allows flexibility of benefits. Cost shifting to fee-for-service system is a concern.</td>
<td>(continued)</td>
</tr>
<tr>
<td>Key Feature</td>
<td>Risk Management</td>
<td>Pros/Cons for Rural Areas</td>
<td>Example</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-----------------------------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------</td>
<td>----------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Full capitation</td>
<td>All-inclusive payment rate paid to a single entity that is financially responsible for risk.</td>
<td>Organization must have established network of providers, be able to pay providers, meet quality assurance standards, and have systems capacity to monitor service use and reporting requirements. Risk can be contained through reinsurance, risk corridors, or risk pools.</td>
<td>Difficult in rural areas with low population base and low penetration of established managed-care providers. May conflict with goals of local area providers and rural market conditions.</td>
<td>Texas Start Plus, Arizona Long-Term Care System</td>
</tr>
</tbody>
</table>

Table 1. Continued
reporting requirements, and, perhaps most fundamentally, expertise at managing financial risk. Plans must also meet applicable state and federal licensure and insurance regulations. The previous section included a description of the commercial, Medicare, and Medicaid plans that are currently in operation and that include a full capitation payment.

Risk Sharing

One of the biggest obstacles that new provider networks or organizations face in developing managed-care products is how to manage and protect themselves from the financial risks associated with capitated payments. This may be of particular concern in rural areas where the number of people enrolling in plans is low, making it difficult to spread risk. Risk sharing may be of interest not only to the contractors but also to the payers, who have little interest in seeing new program contractors fail financially or reap untoward profits. There are a number of ways to share risk in a managed-care program. Some of the more common ways are through the use of reinsurance, the establishment of risk corridors, and the use of risk pools. In its recent survey of state Medicaid managed-care programs, the National Academy for State Health Policy found that 82% of states with Medicaid risk programs in 1998 (37 of 45 states) shared risk with contractors, up from 59% in 1994 (19 of 32 states) (Kaye, Pernice, & Pelletier, 1999). Interestingly, the use of risk sharing has increased along with the number of states that have risk programs.

The use or purchase of reinsurance for high-cost cases is one method of reducing financial losses in a managed-care program. Reinsurance can be structured in a number of different ways. In Arizona, the state buys commercial reinsurance that covers the cost of care for individual cases that exceed certain thresholds. For catastrophic cases associated with certain predefined conditions, such as transplants or hemophilia, the reinsurance covers either a certain percentage of the costs or a preestablished amount for the condition. In other states, the Medicaid agency itself offers reinsurance, or plans may be responsible for purchasing their own reinsurance.

Another way to minimize risk is through the use of risk corridors. Risk corridors define the ways in which losses and profits are divided between a plan or program and a payer. For example, in the PACE program, risk corridors were used in the first 3 start-up years of the program to provide the time necessary to develop and refine the service system. If a program’s revenues exceeded its expenditures, a risk reserve was created that was used to fund losses or create a risk reserve for future years. If a program’s expenditures exceeded its revenues, the losses were shared by the program and the payer.
Corridors can also be used to assure skeptical stakeholders (consumer groups, legislators, providers) that excessive profits will not be siphoned out of an area. In the Texas Star+Plus program, for example, the state will share in profits that exceed 3%, and it will reclaim all profit over 7% (University of Maryland, Center on Aging, 1999).

Finally, some state Medicaid programs have created risk pools by holding back a percentage of payments to contractors and distributing the pool among plans, based on relative occurrence of certain high-cost events. This is, in effect, a form of group insurance that applies only in programs with multiple contractors.

**Partial Capitation**

The development and use of capitation payments that do not include all services in a single rate (but some subset of services) may be an attractive alternative for rural areas. The use of a partial capitation provides the opportunity for an organization to gain experience in managing the risk for a more limited number of services and to design the capitation to be specific to program goals. In his conceptual analysis of Medicare partial capitation, Joseph Newhouse (1998) has argued that it provides the best of both worlds: The capitated portion of the payment promotes cost consciousness and flexibility of benefits, while the fee-for-service component supports appropriate access to needed services.

Partial capitation can take many forms, depending on the goals of the program and the capacity of the entity accepting the risk. For example, the Carle Clinic, which operates in 42 predominantly rural counties around Champaign-Urbana, Illinois, participated in the national Medicare Community Nursing Organization demonstration, in which a package of home health, outpatient therapies, durable and nondurable medical supplies, and ambulance services were capitated, leaving hospital and other Medicare services fee-for-service. In this program, the focus was on developing a nurse partner who would work with the physician to deliver and manage home care and home health services. The partial capitation was developed to provide flexibility to the providers in designing service and care plans that met the needs of the patients without being constrained by the fee-for-service structure of payments and service delivery (Coburn, Bolda, Seavey, Fralich, & Curtis, 1998).

Because of the potential for cost shifting from capitated benefits to those that remain fee-for-service, a partial capitation must be carefully designed to support program goals. Furthermore, a partial capitation system is much
more cumbersome to administer, because provider billing systems and payer reimbursement systems must be able to recognize which services qualify for fee-for-service reimbursement and which are prepaid in a partial capitation.

Medicaid programs have used various forms of partial capitation in the design of managed long-term care programs. In the MSHO program, for example, the capitation payment for Medicaid long-term care services includes only 6 months of nursing facility liability. Beyond 6 months, the managed-care organization continues to be responsible for the member’s care, but it receives a supplemental nursing facility payment (Booth et al., 1997). The state of Minnesota would have preferred to extend MSHO risk to include unlimited nursing facility services, but it was concerned that managed-care plans would not be willing to take on unlimited risk until they had gained experience in the MSHO program.

State Medicaid programs have also used partial capitation extensively to carve out services that have historically been provided by a certain established network of providers. Common examples of this include mental health services and transportation.

Partial capitation has also been used to create Prepaid Health Plans (PHPs) while states await federal Medicaid waivers. Defined in Medicaid regulations as encompassing a “non-comprehensive” package of services, PHPs are responsible for some, but not all, Medicaid services under a partial capitation.

Several PACE sites have used the PHP strategy to operate as pre-PACE sites while awaiting waivers to operate under full Medicaid and Medicare authority. Although the PHP option has allowed new sites to gain experience before operating under full capitation, it has not generally been financially advantageous for pre-PACE sites, because they have not been able to offset expanded community long-term care services against Medicare revenue during the pre-PACE period (State Work Group on PACE, 1999).

Administration Service Arrangements

The integrated financing approaches that have been discussed so far involve some kind of capitated or partially capitated payment arrangement and the assumption of some risk. For rural providers that are interested in managed care, the administrative, management, and financial responsibilities of developing a managed-care product may seem overwhelming. One option that some provider networks have used is to contract with an insurance organization to manage the administrative aspects of the program, such as billing, service-utilization reporting, and risk management. For organizations that are in a start-up phase and trying to develop the organization and
service delivery structures for managing and coordinating care, partnering with an insurance or other administrative organization may be attractive. This gives the program time to develop an organizational infrastructure and medical management plan that can become the basis for a more formal managed-care organization.

**Managed Fee-for-Service/Coordination of Care**

Many rural areas do not have the population base, access to services, or provider base to make even a partial capitation feasible. Furthermore, long-established referral patterns, provider relationships, and patient preferences may not be amenable to the organizational and administrative requirements of managed-care organizations. Nevertheless, the interest in and need to provide better ways to coordinate acute and long-term care services remains a high priority for many rural areas. In these areas, more modest approaches may best meet the needs and goals of the community. One approach is to strengthen the management and coordination of services, particularly the services of people with extensive and ongoing needs. Medicaid programs have developed and implemented PCCM programs for a number of years. In a PCCM program, the Medicaid program contracts with primary care providers (PCPs) to coordinate and authorize service use for a panel of beneficiaries. Historically, the PCCM programs have been used primarily for younger adults and families rather than the elderly, but some states are now looking at adapting the model for elders in need of long-term care services.

For example, Maine has proposed linking the PCP to its long-term care system through the use of a care partner, envisioned as a nurse practitioner or similarly qualified person. Providers would continue to be reimbursed on a fee-for-service basis. When Maine issued a Request for Information (RFI) as part of its MaineNET rural integration demonstration, no commercial plans expressed any serious interest. MaineNET was proposed for three rural counties in central and northern Maine, offering a target group of 15,000 beneficiaries dispersed over 11,528 square miles, over a third of the state’s land mass (Maine Department of Human Services, 1998). The state has among the lowest penetration rates of managed care in the country.

As a result of the RFI, Maine redesigned its model, moving away from capitated HMO payments and opting instead for an enhanced PCCM model, in which payments will continue to be fee-for-service but will be monitored closely by the state, and nurse practitioners will be deployed to forge better links between high-volume primary care practices and the state’s existing
long-term care benefits management agency (Maine Department of Human Services, 1999).

Still untested is the potential for closely coordinating Medicare and Medicaid services in a PCCM model. One obstacle to overcome will be for states to obtain access to live Medicare data if they are to monitor both Medicare and Medicaid. Also unclear is how Medicare and Medicaid incentives can be lined up when both remain fee-for-service.

Two other rural New England states, Vermont and New Hampshire, are exploring ways to assist existing long-term care providers with integration efforts. Vermont has created regional coalitions of community providers as part of a legislatively mandated effort to shift the balance of its long-term care system toward community-based services. Depending on how the coalitions evolve and whether they are willing to bear risk, they are potential future vehicles for financial integration. In Cheshire County, New Hampshire, a group of providers is working with the state to develop an integrated package of long-term care services, but it is unclear at this stage whether Medicaid services will be capitated and, if so, how the providers will establish a single business entity through which they could accept integrated payments and share risk (New England States Consortium, 1999).

Conclusion

Full capitation of multiple funding streams is generally considered the most effective way to support the clinical integration of acute and long-term care for the following reasons:

- It creates a pool of flexible financing.
- It creates incentives to use less institutional care and stimulates the development of community-based alternatives.
- It eliminates cost shifting among payers and perverse utilization incentives inherent in fee-for-service.

Full-risk capitation, however, may be most applicable in urban settings where managed-care infrastructure, including experience in risk management, is better developed; where excess capacity in certain sectors lends itself to discount pricing; and where large numbers of consumers can be enrolled to spread risk. Many rural areas have none or few of these characteristics, and they may have goals, such as protection of the existing service delivery system, that conflict with the use of full capitation.
A number of alternatives to full capitation have emerged and will be refined as experience is gained. Rural areas considering integration projects should consider carefully whether full capitation is feasible or desired and develop a financing and payment system that suits their needs.

References


Article accepted July 1, 1999.

Paul Saucier, MA., is a senior policy analyst at the Edmund S. Muskie School of Public Service at the University of Southern Maine. He has coauthored numerous professional publications on the integration of acute and long-term care, managed care for the elderly, and dually eligible Medicare/Medicaid–eligible older persons. He received his degrees from Cornell and the University of Southern Maine.

Julie Fralich, M.B.A., is an associate director of the Institute for Health Policy and a senior research associate at the Edmund S. Muskie School of Public Service at the University of Southern Maine. She has worked for more than 15 years in the design,
development, and analysis of health policy options, with a particular emphasis on issues related to long-term care. She has experience in the synthesis, design, and analysis of the policy and financing issues associated with programs that serve elders and adults who are dually eligible for Medicaid and Medicare. She is currently working on a study to develop quality measures for vulnerable people living in assisted living and residential care facilities.
Rural Long-Term Care Integration: Developing Service Capacity

Elise J. Bolda
University of Southern Maine

John W. Seavey
University of New Hampshire

This article uses a case study–based framework for analyzing acute and long-term care systems’ integration efforts in rural areas and their impacts on service capacity. The article examines opportunities for enhancing service capacity, as illustrated by the experiences of rural programs in three states: Arizona, Illinois, and Vermont. Local control, local leadership, the medical/social paradigm, and policy stimulation are the dimensions used to examine the unique characteristics of rural integration efforts and their influence on rural long-term care service capacity. The article discusses the importance of technical support, professional collaboration, financing flexibility, and attention to protection of rural safety-net services in developing rural long-term care infrastructures.

Introduction and Background

New models of financial, clinical, and organizational integration of acute and long-term care services continue to emerge in urban areas. At the same time, the potential for similar integration initiatives in rural areas remains unclear. As described in companion articles (Coburn, 2001 [this issue]; Saucier & Fralich, 2001 [this issue]), there are very few examples of rural initiatives designed to integrate primary, acute, and long-term care services in the United States. This article examines the unique characteristics of rural areas in relationship to acute and long-term care integration and then uses case studies to examine the facilitators and barriers to such integration in rural areas. This article attempts to fill a gap in the literature by developing a
framework for analyzing the development of integrated acute and long-term care systems in rural areas.

**Fewer Rural Models**

It should be anticipated that rural models of integrated acute and long-term care would be different from urban models. The demographics, organizational dynamics, and policy conditions vary. The demographics are different in terms of the rural population being older, poorer, and having lower levels of insurance (Coward, Duncan, & Netzer, 1993; Miller, Farmer, & Clarke, 1994). Rural provider capacity has been characterized by smaller institutions with fewer residents and less diversity of health professionals. Consequently, one would expect different models of integration of acute care and chronic long-term care. A parallel occurs with the slower penetration of managed-care organizations in rural areas. A market with few providers and few patients is not very attractive to a managed-care company (National Association of Rural Health Clinics, 1998).

Even though it is prudent to expect that managed care will extend into rural markets, it is also reasonable to conclude that the type of managed care that will exist in rural America will look significantly different than the managed care that exists in urban America. In other words, managed-care organizations will develop unique types or models and submodels of managed care to meet the specific needs and concerns of rural residents. (National Association of Rural Health Clinics, 1998, p. 3)

At one level, one might anticipate more rural models of integrated acute and long-term care. Within rural communities, there is a greater blurring of institutional boundaries. For example, many rural hospitals have established postacute and long-term care services including swing beds, skilled-nursing facilities, and home health services in response to the shrinking demand for inpatient hospital services and/or as a means of diversifying and thereby improving their financial position (Beaulieu, 1992; Schlenker & Shaughnessy, 1996). At the same time, rural hospitals and nursing facilities have adopted vertical integration strategies to meet the needs of their communities, which tend to have a greater proportion of older adults with more chronic care needs. Increasingly, inpatient providers in rural communities are acquiring or developing adult day programs, respite and hospice services, and housing options. Most recently, assisted living and related nonmedical residential care services have become important areas for diversification (Leitenberg, 1997). In more urban areas, these services and other home- and community-
based long-term care alternatives would have developed as freestanding organizations. In the case of assisted living facilities in more affluent urban areas, development has largely been under the auspices of private developers. However, despite these structural advantages, there are fewer rural models (Coburn, 2001 [this issue]; Saucier & Fralich, 2001 [this issue]). What factors might account for this observation? What factors might be necessary but not sufficient to create such integrated systems? What factors might serve as obstacles to such integration?

**Rural Capacity**

There are recognized financial and organizational challenges associated with serving a small population that is widely dispersed. Few Medicare or Medicaid managed-care plans have made forays into rural areas, due, in part, to the greater uncertainty and risk associated with having fewer covered lives available to spread the risk for high-cost beneficiaries. In addition to the small population of potential covered lives, rural areas frequently have a small number of providers, often having only a single provider of many services within the area. In the absence of competing providers, managed-care organizations have found it difficult to negotiate discounts with rural providers, thus making such plans less financially secure and competitive.

The dynamics of current rural long-term care service capacity are not yet fully understood. When the availability of providers is used as the barometer of capacity, rural communities routinely fall short relative to the long-term care capacity of urban areas. What is unclear is whether supply factors alone are sufficient measures of capacity. While there is clear evidence that the array of services available to rural residents is not the same as in urban areas, the full picture of service deficits is obscured by the blurred boundaries between providers in rural areas. Consequently, an overlap of services or substitution of services may compensate for some of the deficiency.

There are several interpretations of urban/rural differences in the use of long-term care services. Differential service-use rates by long-term care consumers in rural areas are attributed by many to be a consequence of poorer access due to the limited supply of providers. For others, differential service-use rates are viewed as a correlate of rural consumers’ characteristics, preferences, and demand differences. Others have demonstrated that service-use differences may be a reflection of the substitution of services across providers in response to the paucity of resources. For example, rural home health agencies have been described as being smaller and offering less diverse services than their urban counterparts (Kenney & Dubay, 1990). This difference in provider characteristics has been offered as an explanation for why rural
home health users have higher nurse and aide service-use rates and lower medical social services and therapy service-use rates (Kenney, 1993). More recently, however, Dansky, Brannon, Shea, Vasey, and Dirani's (1998) research reports that urban/rural differences in supply and individual user characteristics alone do not fully explain the urban/rural differences in long-term care use patterns. Their interpretation of findings speculates that home health visits are in fact substituting for hospital care and physician office visits in rural areas.

From the literature, rural residents appear to have easier access to nursing facility services. Although nursing homes in rural areas tend to be smaller in size, there are more beds per thousand older adults in rural areas than in metropolitan areas (Shaughnessy, 1994). Thus, greater supply of services may contribute to the higher rates of nursing-home use observed in rural areas when compared with urban areas (Dubay, 1993). There is also evidence that rural nursing facilities may place greater emphasis on chronic care needs than on acute care needs, as reflected in the lower number of skilled-nursing beds in rural areas (Rhoades, Potter, & Krause, 1998). This interpretation of chronic versus skilled care emphasis, combined with reports that rural long-term care facilities tend to offer less breadth and depth of health services compared with their urban counterparts (Coward & Cutler, 1989; Dwyer, Lee, & Coward, 1990), may signal several critical differences between urban and rural long-term care capacity. The argument has been made, for example, that in many ways nursing homes have long substituted for assisted-living facilities in rural areas (Rowles, 1996). This argument suggests that rural provider offerings may be designed to fit rural demand and to respond to the preferences of older persons who want to stay within their own community.

Whatever the explanation, the limited provider infrastructure in many rural areas presents special challenges to the development of long-term care services. Rural areas are known to have a widely varying supply of long-term care service options and shortages of physicians, which may be barriers to the development of comprehensive long-term care services (Krout, 1998). Limited service supply may represent either a potential disadvantage for the development of integrated acute and long-term care services or an advantage for encouraging participation and collaboration in long-term care capacity development in rural areas.

Management Expertise

In rural communities, there is frequently a lack of experience with managed care and thus a limited understanding in the existing primary, acute, and long-term care infrastructure relative to the development and management of
mutually beneficial provider networks and negotiated financial incentives for care management across settings and disciplines. These issues are discussed in depth in a companion article on rural long-term care integration financing and payment issues (Saucier & Fralich, 2001 [this issue]). Within the existing rural health care infrastructure, hospitals tend to have the strongest management team in terms of both depth and breadth. The dominance of hospitals in rural integration efforts may have a major impact on rural integration, because there are major philosophical differences of the care for older persons and the need for medical or social solutions. In turn, rural hospitals may look to larger hospitals and health systems for expertise in terms of bargaining with managed-care corporations. Similarly, other types of health care providers in rural areas have little expertise in dealing with prospective payment systems, capitation, and managed care. The existence of leadership at the local level becomes a critical factor in the development of strategies to implement a complicated set of institutional arrangements and responses to financial incentives.

Financial Frailty

The financial frailty of rural institutions has been documented (Harmata & Bogue, 1997; Mick et al., 1994; Seavey, Berry, & Bogue, 1992). For example, rural hospitals have long had profitability margins that are lower than those of larger and more urban facilities. Lower capital assets prevent rural institutions from large capital investments and the assumption of insurance risk. The financial frailty of rural institutions has been increased by the Balanced Budget Act of 1997 (BBA). As a further complication (discussed elsewhere by Coburn, 2001 [this issue]; Saucier & Fralich, 2001 [this issue]), rural primary, acute, and long-term care providers are currently seeking a new balance in response to the changes mandated by the BBA, which are now being implemented. For example, federal standards for the development of Medicare Provider Service Organizations (PSOs) were published in the Federal Register in the spring of 1998. Some states have implemented their own standards, while others are just beginning. In addition, there are many changes in rural health care reimbursement policy that do not apply to urban areas. The dissolution of disproportionate-share hospital payments, the introduction of Critical Access Hospital (CAH) status options, and changes in home health reimbursement have a major impact for rural healthcare (Coburn, 2001 [this issue]; Saucier & Fralich, 2001 [this issue]). For example, rural hospitals that opt for designation as CAHs face limits on their in-patient acute care beds and must accept restrictions on patient length of
stay. In addition, they are obligated to participate in network and community health-development activities.

Although these three factors may help to explain the lower number of rural integration models for acute and long-term care, it is important to examine facilitating factors and barriers to such integration efforts.

Case Studies

This article uses observations from four rural systems observed as part of a national study of rural models for integrating acute and long-term care services (Coburn, Bolda, Seavey, Fralich, & Curtis, 1998). The review of lessons learned from the experience of rural delivery systems in Arizona, Illinois, and Vermont is offered from the perspective of three very different models of integration. The original study and rural models from which these lessons are derived are briefly described below. The last section of this article reviews the implications of these lessons for public policy, based on the differences between urban and rural integrated systems and the barriers and facilitators for such development.

Method

Sites for this study were selected to illustrate the range of approaches and the diversity of challenges faced in developing managed-care and integrated service programs for older adults and younger physically disabled persons in rural areas. To select these sites, we compiled a list of potential sites based on information from other rural network studies, consultation with national provider associations and organizations (e.g., American Hospital Association, National Academy for State Health Policy), and research colleagues across the country. Our objective was to identify rural sites that reflected different managed-care and system-integration approaches that embodied an explicit goal of integrating acute and long-term care services (including home-based and residential long-term care services). We sought rural areas that were in different stages of development and that were located in different parts of the country. Telephone interviews were conducted with state policy makers (e.g., State Offices of Rural Health, State Units on Aging, and Medicaid agency representatives) and representatives of the sites to learn more about specific program features and each site’s stage of development to help assure that the selected sites met our study objectives.

The four sites included in the study were visited between June 1996 and February 1997 with in-person and telephone interviews conducted using
semistructured protocols developed for this project. Interviewees varied by site, but they generally included state or county officials, program administrators, clinical or service managers, and network-provider organizations. Readers are referred to the final Working Paper from the study (Coburn et al., 1998) for an in-depth analysis of the sites and to the discussion of these models included in the companion articles prepared for this volume (Coburn, 2001 [this issue]; Saucier & Fralich, 2001 [this issue]).

Following the summary of the three models, key characteristics of the sites are presented in Table 1. These summaries offer readers a context for interpreting the observations discussed.

Rural Arizona (Cochise and Pinal counties—Medicaid only)

Cochise Health System (CHS) and Pinal County Long-Term Care (PCLTC) in Arizona represent the Medicaid-only approach to managed acute and long-term care services under county government sponsorship. These county-based managed-care programs operate under capitated contracts with Arizona Long-Term Care Services (ALTCS), the state’s managed Medicaid long-term care program. In Arizona, nonfederal matching funds for Medicaid services are the responsibility of county governments.

Both counties manage a network of primary, acute, and long-term care providers serving nursing facility–certifiable frail elderly and younger physically disabled Medicaid clients. The two counties’ acute care networks include both rural and urban hospitals and rehabilitation facilities. Members are served by primary care providers under contract with the county. Long-term care services are provided through a contracted network of subacute care providers, nursing facilities, home health, home care, and respite care providers. Although these two counties represent rare examples of fully integrated and capitated rural health care systems for the frail elderly and those with disabilities, they also illustrate the potential opportunities and limitations inherent in a system in which only Medicaid-funded services are fully integrated and managed.

Cochise Health System

The risks of taking on the ALTCS program were carefully studied in both Cochise and Pinal counties. At the inception of the ALTCS program in 1989, Cochise County hired independent consultants who advised the county not to pursue the ALTCS program contract based on their concerns regarding the
### Table 1. Key Characteristics of Study Sites

<table>
<thead>
<tr>
<th>Descriptive Characteristic</th>
<th>Arizona</th>
<th>Illinois</th>
<th>Vermont</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational base</td>
<td>Cochise Health System</td>
<td>County government–based health plan</td>
<td>Physician/clinic–based health system</td>
</tr>
<tr>
<td>Area population</td>
<td>Cochise County 108,225 (1994)</td>
<td>Pinal County 132,225 (1994)</td>
<td>42 counties (10 are participating in CNO) 2.3 million total</td>
</tr>
<tr>
<td>Population density</td>
<td>6,219 square miles 17.5 persons/square mile</td>
<td>5,344 square miles 25 persons/square mile</td>
<td>N/A 460 square miles 42.8 persons/square mile</td>
</tr>
<tr>
<td>Enrollment</td>
<td>Mandatory enrollment</td>
<td>Mandatory enrollment</td>
<td>Voluntary enrollment</td>
</tr>
<tr>
<td>Target population</td>
<td>Nursing facility–certifiable older adults and younger physically disabled adults</td>
<td>Nursing facility–certifiable older adults and younger physically disabled adults</td>
<td>Medicare beneficiaries (excludes persons with End Stage Renal Disease, hospice recipients, and those with hospital or nursing facility stays of 60 days or longer)</td>
</tr>
</tbody>
</table>

(continued)
<table>
<thead>
<tr>
<th>Descriptive Characteristic</th>
<th>Cochise Health System</th>
<th>Pinal Health System</th>
<th>Carle Clinic—CNO Demonstration</th>
<th>Copley Health System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicare/Medicaid contracts (risk)</td>
<td>Capitated risk-based contract for ALTCS (Medicaid) acute and long-term care services</td>
<td>Capitated risk-based contract for ALTCS (Medicaid) acute and long-term care services</td>
<td>Capitated risk-based contract for selected Medicare acute and post-acute services</td>
<td>No Medicare or Medicaid contracts</td>
</tr>
<tr>
<td>Scope of network services</td>
<td>Hospital, physician, rehabilitation therapies including mental health services, laboratory, X-ray, pharmacy, durable medical equipment, nursing facility, home health, personal care, medical supplies, transportation, adult day health, homemaker, emergency response systems, hospice, respite, and home delivered meals</td>
<td>Hospital, physician, rehabilitation therapies including mental health services, laboratory, X-ray, pharmacy, durable medical equipment, nursing facility, home health, personal care, medical supplies, transportation, adult day health, homemaker, emergency response systems, hospice, respite, and home delivered meals</td>
<td>Home health services, outpatient therapies including counseling, durable medical equipment, medical supplies, and ambulance services</td>
<td>Hospital, physicians, mental health providers, outpatient services, nursing facility, assisted living, emergency response systems</td>
</tr>
<tr>
<td>Approach</td>
<td>County plan contracts with providers</td>
<td>County plan contracts with providers</td>
<td>Clinic ownership with some local provider contracts</td>
<td>System ownership with some affiliation agreements</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------------------------------</td>
<td>--------------------------------------</td>
<td>-----------------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>State role</td>
<td>Defines plan specifications and contracts with county</td>
<td>Defines plan specifications and contracts with county</td>
<td>None</td>
<td>State legislation encourages community-based long-term care systems development</td>
</tr>
</tbody>
</table>

NOTE: CNO = Community Nursing Organization; ALTCS = Arizona Long-Term Care Services.
financial viability of a county-operated health system. The ALTCS contract was then awarded to Ventana Health Systems, a proprietary managed-care organization developed by physicians in Arizona.

Following review of annual data on profitability and reports of Cochise County residents’ concerns about access to services, particularly the very limited choice of primary care providers, staff from the county’s Department of Fiduciary and Medical Assistance urged the county to become an ALTCS contractor. The decision to establish the Cochise Health System in 1993 was based on two key issues. County staff were concerned about the limited number of providers in the network serving ALTCS members in Cochise County and the threat to the existing health care infrastructure within the county when the out-of-county ALTCS contractor established its network. Staff and elected officials of the county also noted that the ALTCS contract had been profitable for Ventana Health Systems at the expense of Cochise County.

Pinal County Long-Term Care

In Pinal County, the county Board of Supervisors and staff were equally concerned about the rural nature of the county and whether the population base was sufficiently large to spread the risk of the program. One person interviewed commented that Pinal County was just rural enough to be annoying. The Board was also worried about the possibility of a woodwork effect (i.e., an increase in the number of people seeking home and community-based long-term care services) once the program was in place.

From Pinal County’s perspective, one of the major selling points of taking control of the system was the opportunity to improve the economic development base of the county. It was seen as a mechanism to create new jobs in a service-based industry while being consistent with the community value of promoting long-term care alternatives that allow people to maintain their independence. Proponents also saw ALTCS as giving the county control of services that were being paid for by the county. Concern for the future of the county hospital was another factor, because the previous ALTCS contractor (from outside the county) had been sending county residents to hospitals outside the county. Ultimately, the county manager and staff argued that the county would have greater control over the financial future of the county hospital if it became the ALTCS contractor.

Carle Clinic in Rural Illinois—Medicare Only

The Community Nursing Organization (CNO) demonstration at Carle Clinic represents a Medicare-only approach to managed acute and postacute
care. The Carle Clinic Association and the Carle Foundation represent a complex, integrated health system serving the 8 million residents of mostly rural central Illinois. The Carle Clinic is the only rural site for the Health Care Financing Administration–sponsored CNO demonstration program. Since 1992, this demonstration has provided community-nursing and ambulatory-care services on a prepaid, capitated basis for voluntarily enrolled Medicare beneficiaries. Participation in the CNO is restricted to Medicare beneficiaries who are not enrolled in risk-contract Health Maintenance Organizations (HMOs). Persons with end-stage renal disease and recipients of hospice services are also not permitted to enroll. Beneficiaries are disenrolled from the CNO if they have hospital or nursing facility stays of 60 days or longer; thus the CNO target population has less intense chronic care needs than the population served by the Arizona model.

Under this demonstration, the provision of a specific and limited set of primary care and postacute care services under capitated financing are being tested. This demonstration is part of Carle’s collaborative practice model, using nurses as partners with patients, families, and primary care physicians.

**Copley Health Systems**  
*in Rural Vermont—Community Integration*

Copley Health Systems, Inc., located in Lamoille County in Vermont, is an example of a community-based system that is attempting to develop an integrated system without benefit of Medicare or Medicaid contracts. It does, however, have state support under legislation encouraging locally developed integrated service models. The vision of Copley Health Systems is to be the lead agency, but not necessarily the controlling agency, in the integration of health care for all residents of Lamoille County and the surrounding communities in the Lamoille River Valley.

The Copley Health System includes a 54-bed acute care local community hospital, a privately endowed foundation created for the benefit of older residents of the county, the county community mental health agency, a 40-unit private-pay assisted-living facility, and a 72-unit nursing home with an Alzheimer’s unit. The system has affiliation agreements with area physician practices and a large tertiary care hospital in an adjacent urban area. The system’s Board is composed of representatives of various units within the system and external members recruited for the purpose of building relationships with other area providers. In the absence of either Medicare or Medicaid risk contracts, Copley Health Systems remains an evolving model and is continuing to develop an integrated system in the anticipation of managed care and capitated payments for health care in Vermont.
Lessons Learned:  
Facilitators and Barriers to Integration

This section explains the facilitators and barriers to rural acute and long-term care integration by using the cases as described in the previous section. These are not grouped as a dichotomy for, in some instances, the same issues could be both a barrier and a facilitator. Many of these lessons support the principles for rural long-term care as described by Rowles, Beaulieu, and Myers (1996).

Capacity

Each rural community has a unique set of capacities and characteristics that at the same time limits and enables it to develop a unique response to its environment. Rowles, Beaulieu, and Myers (1996) have described the importance of the local community characteristics and local control. As indicated in the beginning of this article, the size of a rural population is a major disadvantage for a managed-care system. If it is assumed that a new payment system will mean the assumption of some level of risk, then small populations make the assumption of health-insurance risk difficult. The impact of one very expensive case is intensified with a small number of individuals. Therefore, managed-care companies are very careful about entering rural areas. Providers must also be careful under such arrangements. Managed care frequently uses discounts from traditional fee-for-service schedules. To assure that the bottom lines are not affected, the calculation of discounts from fee-for-service rates is based on an assumption of increasing volume to compensate for reduced fees. In rural areas, increasing volume may not be possible or sufficient to compensate for such discounts. In contrast, where there is a large market, a small increase in market share can mean a major increase in total dollars, despite a decrease in the rate.

Characteristics of a rural population also place rural providers and insurers at a higher level of risk. Rural populations generally have a higher percentage of the poor, the uninsured, and the elderly, market segments that are not attractive for managed-care companies. Educational levels also tend to be lower in rural areas. In addition, some rural areas tend to lack major employers, which are the natural markets for managed-care companies. All of these characteristics make it more difficult for a rural area to be attractive to a managed-care entity to develop a plan for rural areas.

Problems of rural capacity will continue to create challenges for the development of models of integrated health care delivery in rural areas. However, the rural market has one aspect that is to its advantage, customer loyalty. The
extent to which rural systems can retain consumer loyalty may compensate to some degree for market size. The concept of rural capacity and its relationship to integration is an intriguing one. Mergers and other forms of integration are generally sold as saving money. However, their real impact tends to be increasing access to capital and improving the quality of care. As indicated below, the integration of acute and chronic care can lead to an increase in rural capacity.

Smallness in size is not always a disadvantage. Those interviewed at both sites in Arizona indicated that the smaller number of people served, while increasing the financial risk for the program, made the program more manageable. They viewed their rurality, small staff, and small membership size as distinct advantages. The directors of PCLTC and CHS were able to maintain an active working knowledge of the problems within their systems, in terms of both provider and member activities. When a primary care physician, pharmacist, or other provider within the network demonstrates practice patterns outside the norm for their area, or when a member refuses services or uses excessive services, that information is quickly known by the entire management team. When such instances recur, they are readily recognizable and the history of efforts to resolve problems is known. This enables experience to serve as a guide for the future program improvement efforts. The small size permits solutions to be developed and implemented expeditiously.

According to the PCLTC staff interviewed, the small staff size was of particular value during initial development and implementation of the ALTCS program. They reported that the small size facilitated the development of a management team that could quickly identify and troubleshoot problems as they arose. In addition, they credit the rural nature of the county, while not without its drawbacks, with providing an environment where key leaders and providers were well known to each other and where business could be conducted in a collegial manner.

**Limited Competition**

Because there are fewer alternative providers within a community, there are natural alliances that can and should develop. The need for community vision and cooperative ventures among the various providers has been recognized as being a critical need for long-term care (Rowles et al., 1996). However, the need for cooperation and the limited number of providers also means that a balking potential partner can create major obstacles for community provider cooperation. As noted earlier, the availability of primary care, in-home long-term care, and other services is limited in most rural areas. One challenge created by the limited service capacity in rural areas is the
difficulty this can create for network formation. The problems of plans being held hostage by single, dominant providers have been identified previously by others and are especially problematic in rural areas (Riley & Mollica, 1995). There is a need for a broad community vision to overcome institutional interests and/or competition.

In Cochise County, the ability of an institution to threaten community coordination of long-term care services was exemplified by an existing nursing facility that had expressed a reluctance to continue as a member of the CHS network. In this instance, the nursing facility was the sole provider for one of the five population centers in Cochise County. The provider wanted to withdraw from the network due to what it perceived as insufficient levels of payment. CHS staff were reasonably certain, however, that the facility would have a change of heart when it realized that a majority of its residents were ALTCS members and that CHS was prepared to restrict access to the facility by their members. CHS staff had made a tentative decision to continue to pay for services (under a fee-for-service arrangement) until current residents left the facility, rather than move members to different facilities. However, the conflict was resolved, and the county set a precedent of not falling prey to a single provider in a potentially monopolistic environment.

In the Vermont case study, the reluctance of an essential community provider has remained a major obstacle to further integration. This is exemplified by Copley Health System’s effort to engage in formal negotiations with the certified home health agency serving the area. The home health agency was invited to participate on the Board of Copley Health Systems for six months to familiarize the agency with the goals of Copley Health System. Discussions have also been held between Copley Health System and the home health agency at both the CEO and Trustee levels. To attempt to demonstrate the benefits of integration, Copley and the home health agency jointly hired a discharge planner at the hospital to expedite the coordination of services. However, the success of that project appears to have convinced the CEO of the home health agency that contractual project-by-project agreements were sufficient to assure coordination of services.

Although the home health agency realized it was being courted by Copley Health Systems, it did not feel that belonging to Copley Health Systems would create savings or administrative efficiencies. Once it came to this conclusion, there was little leverage that could be applied. In Vermont, there can be only one certified home health agency per service area. This policy was enacted to assure services in rural areas. However, this has also meant that the home health agency is protected from competition. Copley could not threaten to start its own home health organization or contract with an outside agency. Because home health care is a critical piece of the long-term care continuum
of care, this has stymied the completion of the network. The absence of competitors among service providers can reduce the incentives for providers to join a network and limit the ability of payers and plans to negotiate payment discounts or other arrangements designed to control the use of services and reduce costs. As observed in the Vermont case study, the lack of competition can create an environment with few incentives to integrate. When there is no alternate source of needed services, negotiations can quickly break down over turf issues.

Local Control

One of the major incentives for the development of integrated systems is the perception that integration will facilitate the retention of local health resources and patients. This is a powerful incentive for rural health care providers and employers. Health care providers are cognizant that managed-care organizations attempt to bundle services and restrict access to noncontracted services as much as possible. A rural health care system can be left out of the delivery system if it lacks contracts. Strength comes in numbers and in being able to offer the entire continuum of care to a specific geographic area. In addition, rural businesses may wish to retain local control of the provision of health care to attract or retain employees, reduce employer costs, or retain local medical capacity for emergency medical care. The relationship between the rural economy and the health care delivery system has been cited many times (Christianson & Faulkner, 1981; Cordes, Doeksen, & Shaffer, 1994).

The importance of local control is central. Because communities differ so much in terms of capacity, epidemiology, and physical characteristics, it is important that the local health care system be designed with these differences in mind. Although rural communities have generally held healthy skepticism regarding offers of assistance from urban health care providers, local control may actually be dependent on establishing linkages with large urban facilities. The development of local systems of care management may also be important in keeping patients within the local health care system for as long as medically appropriate.

In Cochise County, CHS’s anxiety regarding out-of-county hospital placements was based on experience. The cost of hospital care and the limited care management provided to a quadriplegic and ventilator-dependent CHS member served out of county was used as anecdotal evidence for the need for local control. In addition, CHS staff reported difficulty in locating and communicating with hospitals outside the county that were serving CHS members. This was particularly troublesome for members with intensive care needs in large metropolitan hospitals in Tucson. In an effort to reduce the loss
of control for its members being served in Tucson hospitals, CHS sought a contract with a single hospital in Tucson to provide all member services. In addition, CHS quality-management staff worked with care managers and quality-management staff from the ALTCS contractor in Pima County (Tucson), on a cooperative basis, to make site visits or obtain member information from hospitals in that county. In the most complex cases, CHS has dispatched its medical director to make visits to members in Tucson hospitals.

In Vermont, the culture of the state is dominated by the ethic of local control. At the state level, there is a similar ethic for Vermont-based services. For example, when Vermont was dominated by out-of-state managed-care companies, the state was a major facilitator for developing a Vermont-based HMO. In addition, people at the local level feel strongly about the need to keep services local; generally, this refers to the county level. As mentioned previously, the monopoly status of home health agencies is a by-product of that ethic. The efforts of Copley Health System are seen as a vehicle for protecting local health delivery systems from being decimated by outside forces. However, it has also used an affiliation agreement with the state’s largest tertiary care provider in the adjacent urban county to help assure this independence. Through integration, it has attempted to protect the local system as a unit. In addition to transfer agreements between the hospitals, the affiliation agreement includes as one of the basic services to Copley Health Systems the negotiation of managed-care contracts. By joining with a larger entity with greater experience in negotiating contracts, Copley Health System is assuring that it will be well represented, gain potential advantages based on network size or geographic coverage, and protect the integrity of the local delivery system.

Local Leadership

The characteristics and qualities of the community, county, or region, including the effectiveness of local leaders, the sense of community, and the degree of support for local organizations and providers, are all critical in the development of rural long-term care service capacity. This was very evident in all four case-study sites. The management expertise to calculate the amount of a discounted fee-for-service, without the possibility of balanced billing or the calculation of a capitated payment, requires data systems and financial expertise that may not be available among many small providers in rural areas.

In Pinal and Cochise counties, local county leadership played a central role in the decision to participate as contractors in the ALTCS program and to develop the capacity to do so effectively. The importance of developing local
management capacity as an ALTCS contractor in both counties was largely driven by the interest in building the local-health and social-service infrastructure and in preventing the export of local dollars and clients to out-of-county providers.

At both PCLTC and CHS, there appeared to be consensus among the management team and providers that there was value to the community when management of its health system was local. The development of a local network of primary care providers, pharmacy services, and other health services has strengthened the existing infrastructure for the entire population of these counties.

While Arizona’s county-level government and county-management infrastructure provided a framework for development of ALTCS programs, the counties lacked experience with managed care, a fact that did not escape the notice of prospective providers. This is a challenge likely to be faced when any new management structure is developed for rural long-term care services. At least one aspect of the network that has relieved provider anxieties about a publicly managed system has been the careful development of specifications of provider service contracts and periodic solicitation of contracts through a competitive bidding process. This process draws on the Arizona Health Care Cost Containment System (AHCCCS) policies and existing county procurement procedures.

Among providers in Cochise County, there was initial skepticism about a county-controlled network. During the development of the Cochise County proposal to become the ALTCS program contractor, a protest effort was mounted by providers to oppose the county’s proposal. Several providers holding contracts with Ventana (CHS’s predecessor) were concerned that the county would be unable to manage timely payments for services and that rates would be lowered under county management. Three years after the introduction of the CHS, however, the county has consistently been perceived as an honest partner in the delivery of integrated acute and long-term care services and has exceeded local provider expectations as an ALTCS contractor.

In Pinal County, the Board of Supervisors was able to limit its risk of failure by hiring staff who had previously worked with the Maricopa County (Phoenix) ALTCS. This expertise, combined with support from the county Board of Supervisors and the state AHCCCS office, enabled PCLTC to develop and implement services within a relatively short time frame.

In contrast to Arizona, Carle’s CNO was developed as a demonstration project within the broader Carle organization, and, therefore, it has not encountered the provider skepticism that was problematic in Arizona. As with any new program within a large organization, the demonstration project
managers had to gain approval and get buy-in for the initiatives. However, strong support from senior management was obtained prior to introduction of the CNO project.

According to Carle physicians and Primary Nurse Providers (PNPs), ongoing communication is essential and physical proximity of the two providers is key. When the PNPs are located at the same practice site as physicians, they are able to maintain a consistent presence and relay information and concerns on an as-needed basis. The providers interviewed felt that this physical proximity provides the necessary opportunity for informal communication and allows a relationship to develop between the doctor and the nurse partner. In instances where the CNO patient does not have a Carle physician, the communication and collaboration become more difficult because there is no face-to-face contact between the physician and the PNP. The nurse manager must rely on written and phone communication with the physician and has less opportunity to establish a collegial relationship.

Established PNP/physician communication and ongoing monitoring of the patient have meant that the patient’s needs are identified earlier and that services are arranged in a more timely manner. Timely identification of changing patient needs has meant that providers are better equipped to target resources and provide appropriate care. Because the PNP is able to provide the necessary case management for the frail patient, the physician is more willing to work with the CNO and the patient to provide the required physician services.

In Vermont, the role of leadership has been critical. Here, there are units that are not required to integrate, yet they are motivated to do so to protect the local delivery of health care. Copley Health System has developed under the guidance of a nationally recognized hospital administrator (former president of the American Hospital Association). The leadership must be on one hand visionary and on the other hand very practical to overcome turf and philosophical differences. Working with leaders from other local agencies, the Copley Health System has created an environment in which the network members share a common vision of the need for local delivery of integrated care. Even in the absence of experience with managed care, rural integration efforts can be fostered. An interesting example is found in the unique relationship that Copley Health System has forged with the area community mental health agency.

Unlike many other states, Vermont is trying to develop Medicaid HMO contracts that do not separate out mental health services. This stance explains one of the early integration efforts by Copley Health System, the development of a memorandum of understanding and a subsequent merger agreement with the statutorily defined community mental health agency. This
required the approval of the Vermont Attorney General. Although initially opposed to the merger due to the state requirement for an independent citizens' board for all community mental health agencies, the Attorney General agreed to approve the merger. As such, Copley Health System is responsible for running the county’s mental health system. Somewhat poetically, this completes a circle that started 25 years ago when the hospital donated land to the mental health agency for construction of agency offices and program space adjacent to the hospital.

From the mental health agency’s perspective, the coming of managed care for mental health prompted the mental health agency to seek a merger with Copley Health Systems. The agency’s lack of experience with managed care led it to believe that it would be in a better bargaining position with the hospital as its partner. Under the philosophy of Copley Health Systems, the hospital may be a stimulus to the integration process, but it need not be the controlling force. Here, the leader of the hospital has brought a new model of mental health delivery into the community as a mechanism for the county’s health care system to adapt to the changes in the health care environment. From all appearances, the mental health services have improved in the county under this new arrangement.

**Medical/Social Paradigm**

Professional philosophical differences are evident when comparing and contrasting the more cure-oriented philosophy of primary and acute care providers with the more care-oriented philosophy of long-term care providers. These differences are increasingly acknowledged and discussed among professionals. Yet, conflict in the definition of roles and responsibilities and decisions about control and dominance of service delivery in an integrated system remain largely unresolved. The development of bridges between the cultures of primary, acute, and long-term care represents both the positive prospects and challenges to integration of services for older adults in rural areas. As has been pointed out elsewhere (Rowles et al., 1996), a rural community should recognize that local agencies are interdependent and understand that care for the elderly is nonlinear. No single agency can provide all the types of care required by older adults. This recognition should encourage coordination. In addition, long-term care needs vary with intermittent need for acute care, chronic care, nutrition, financial support, and social support services. In the case studies for this article, the philosophical differences between the medical and the social model of health care became critical.

Conflicting professional cultures and distrust between medical and long-term care service providers are potential barriers to integrating the
financing and delivery of services. Traditional long-term care providers emphasize the use of social support services to maximize independence and quality of life while medical care providers focus on cures. For many medical care providers, lack of experience with the long-term care sector may create a challenge in developing effective communication and collaboration. It is not uncommon for a provider from one side to view the care provided by the other as inappropriate, resulting in long-standing local anecdotal evidence of poor quality of care by one side or the other.

It is not clear whether these problems are more prevalent in rural communities or whether they are more or less easily overcome in these smaller places than in larger communities. On one hand, observers in Arizona almost uniformly reported that, since the implementation of ALTCS, collaboration among medical and long-term care providers has improved dramatically as a result of their managed-care experience. Similarly, in the smaller practices participating in the Carle CNO, the small, rural nature of the operation was credited with fostering stronger collaboration to the benefit of enrollees. This observation suggests that although the Carle CNO has avoided some of the interprofessional problems by limiting its care-management program to services that clearly fall within the medical care sector, even within this sector, care-management support is not always readily accepted by physicians.

The CNO concept necessitates coordination and integration between the nurse partners and primary care physicians. As such, the PNP, or nurse partner, is the key to the CNO project. This practitioner coordinates the nonphysician, noninstitutional services provided to Medicare beneficiaries. The PNP is responsible for assessing the enrollee’s needs, developing care plans in coordination with the enrollee’s physician, and authorizing, arranging, and monitoring the delivery of services covered under the CNO. This includes those community and nonmedical services that can enhance the patient’s overall care and well-being. The PNP also provides ongoing monitoring and case management, including the management of acute and chronic health conditions and the support and education of the patient and family through all stages of disease and wellness. According to participants, the CNO has resulted in improved detection of the frail patients and more timely referral to appropriate care specific to their level of functioning.

In Arizona, new primary care provider/care manager relationships were formed from scratch through intense effort on the part of ALTCS contractor staff. In Vermont, collaborative challenges have been less of an issue relative to physician involvement, yet they are very apparent in the challenges faced while seeking to develop relationships with other community service providers.
Within Lamoille County in Vermont, there have been a fixed number of actors, and many of the players have known each other for years. The community has a reputation for pulling together. However, this also has its downside. Anecdotal stories take on a life of their own. Individual cases prove the point that the hospital has a medical framework or that a social service agency did not refer someone for appropriate medical care. These anecdotes create barriers for years after the incidents. This is most aptly articulated by the providers of the social services in the communities. Interviewees repeatedly reported that unless individual provider organizations remain independent, there will be a tendency to institutionalize and to medicalize responses to the needs of older adults as a consequence of the leadership role played by the hospital.

Since the Copley system is a hospital-driven network, there remains a degree of distrust among some community participants. While some have acknowledged the need to unite in anticipation of managed care, especially managed care from outside the state, others still see organizational boundaries as being necessary to protect the various interests in the community. Although some may even grudgingly admit that it is inevitable that Copley Health Systems will be successful in creating a community-based network, there is hesitation to join an organization with a medically dominated perspective. Many hospitals are regarded as late converts to the notion of community-based care and to the nonmedical side of health care. These weaknesses, while not major ones in an era of fee-for-service medical reimbursement, become more critical when putting together a network for community care. The hospital is often the local health institution, which is the biggest and the richest in terms of both money and management skills. Where leadership is derived from the hospital, building a community network where there is no competition requires building trust among the smaller yet key parts of the system. In such instances, organizational identity may be a critical consideration for long-term care service-capacity development. Each organization wants to retain its own identity, to honor its history, and to protect what it perceives as its clients’ interests. The difficulty is balancing that with the notion of working as one, with each agency accomplishing more of its mission by working together. For this reason, breaking down the barriers of community organizations may be the most challenging part of the process. Those not skilled in building consensus face a difficult task indeed.

Copley Health Systems is in the process of building trust on multiple fronts. One of the major challenges is to prevent the hospital from being perceived as the organization that has to dominate all others. Copley Health Systems has indeed articulated the concept that the hospital is but one of the
pieces, and perhaps not the lead agency, in creating an integrated community health care system for Lamoille Valley. One effort, sponsored by Copley Health Systems, to build trust and cooperation among the various community organizations has been a series of retreats led by an outside mediator. This has been activity designed to break down barriers among the leadership of community health care organizations. The task of this group is to define how long-term care services can best be organized in the county. While this series of retreats has been funded with money fronted by Copley Health Systems, obtaining partial external funding and prorating some of the cost of this to each of the participants were seen as means of developing buy-in to the process.

**Policy Stimulation**

It is obvious that public policy played a major role in the Arizona and Carle Clinic arrangements. The Arizona cases were driven by the adoption of a statewide plan to substitute for Medicaid. The Carle Clinic CNO project was a Medicare demonstration project. Were it not for these major policy initiatives at the federal and state level, it is unlikely that these organizational changes would have been made.

Today, the policy implications of the BBA for the integration of acute and long-term care are profound. The BBA allows for the establishment of PSO organizations, which is seen to be particularly important for rural areas. The change in reimbursement policies, for example, freezing payment levels, implementing new prospective payment systems, and the designation of CAHs, are all major stimuli to the organizational changes occurring in rural health care delivery. The historic fragmentation of the reimbursement system has facilitated organizational duplication and independence. With many of the changes occurring at the policy level, changes at the organizational level are sure to follow.

We are likely to see only slow development of managed acute and long-term care programs in the future, until such time as policy makers or others provide clear signals and incentives. Policy and/or market forces have been the primary drivers behind the expansion of managed care and more competitive health care purchasing and delivery strategies over the past few years (Miller et al., 1994). Except for a few states where state Medicaid policy has given rise to innovative managed-care programs targeted to physically disabled persons eligible for both the Medicare and Medicaid programs, there are few financial or policy incentives driving insurers and providers to develop new integrated delivery arrangements. The state of Vermont has provided strong signals for the development of locally based
integrated systems, but these centripetal forces have thus far not been sufficiently powerful to counter the centrifugal forces of turf protection driving local organizations apart. In contrast to Arizona, where there was mandatory participation by specific populations (Medicaid), the Vermont model affects the entire population but on a voluntary basis.

Arizona, of course, is unique in that, prior to the AHCCCS and ALTCS programs, there was no state Medicaid program and all services were funded at the county level. The county had a history, therefore, of being the financing mechanism for health and social services. Given the core services required of ALTCS contractors (claims processing, member services, quality assurance, case management) and the small number of people served, the existence of the county-level government and county-management infrastructure provided a framework for development of ALTCS programs. Arizona state policy, which placed responsibility for the financing and delivery of acute and long-term care services at the local level, provided the environment and impetus for the development of the PCLTC and CHS programs. The willingness of the state staff to allow a start-up phase for the program and to help resolve problems as they arose also provided the necessary time and technical support to work through the early implementation phase of the system.

Even with the opportunities afforded by Arizona policies and technical support, staff at both PCLTC and CHS credit the leadership and vision of their Boards of Supervisors with the creation of their programs. The Boards saw the opportunity to take control of the delivery of services at the local level, to be active players in the process, and to be responsive to the expressed desires of elders and those with disabilities to have more community options available. However, as in the case of Vermont, state encouragement and support may not be sufficient to counter the forces of turf protection and differences in philosophies. It remains up to the local continuum of agencies to make any system work.

The importance of financial incentives and, more specifically, the prospect of managed-care contracts in fostering the development of integrated networks and managed-care systems is clearly evident in both the Arizona and the Carle experiences. In Arizona, county officials acted on incentives provided in the ALTCS program and sought to create their own managed-care program to retain any savings locally. There are, however, few places where public payers have moved to managed care for older persons or the disabled. Thus, there are few financial or policy incentives for providers and insurers of acute and long-term care services to develop new financing and service-delivery arrangements.

Although this study demonstrates the utility of public policy in initiating such changes, it is important to recognize that policies also have a way of
limiting innovation. Rowles, Beaulieu, and Myers (1996) referred to this as a client-centered philosophy of care: Any public policies should be flexible to respond to the unique characteristics of clients’ needs. The cases here exemplify the breadth of policy initiatives. The CNO project at Carle Clinic is a specific program for a specific less-frail population. The Arizona examples are more general, but they too focus on a particular population (more impaired persons with a need for long-term care services). The Vermont example is the one that is most applicable to broader health system integration in rural communities, and it is still in the process of being developed.

**Capacity Building**

The examples below, although limited, suggest that supply limitations can be overcome in the development of integrated acute and long-term care services. Managed-care programs like Arizona’s ALTCS may actually serve to stimulate the development of services and the preservation of the service infrastructure in rural areas that have had supply problems in the past.

People in Pinal and Cochise counties noted that the availability of services, especially in-home support services, was a serious problem prior to the development of the ALTCS program. Since the implementation of their ALTCS contracts, however, there has been a steady expansion in the availability of these services in both counties. Although the expanded public funding for these services under the ALTCS program may explain some of this improvement, there is strong evidence in both counties that the development of the managed-care programs also contributed to expanding service availability and access.

Prior to development of the Pinal County ALTCS program, the network of long-term care services within the county was quite limited. There was only one home health agency in the county, no attendant-level care, no adult foster care, a limited supply of nursing-home beds, and little, if any, integration of the traditional aging-service network with the long-term care service system. Nursing-home facilities and residential long-term care services had been in short supply in Pinal County for a number of years.

In Pinal County, the county took a service system planning approach as it developed and implemented its managed-care program to identify and address gaps in services. The limited supply of nursing-facility beds in combination with a philosophical commitment to providing alternatives for people who want to remain at home provided an impetus for the development of more home- and community-based options.

Since the start of PCLTC, the number of home health agencies doing business in the county has increased. In response to finding that adult foster care
was largely unavailable in the county, ALTCS staff have successfully worked with interested individuals, particularly former child foster-care providers, to develop additional adult foster-care services in the county.

Cochise County also recognized its supply problems as it began to negotiate contracts with providers and responded to the concerns of care managers and consumers. The Cochise Health System has actively sought to develop an expanded primary care physician (PCP) network for members. At the time that CHS accepted responsibility as ALTCS’s program contractor, members in one of the county’s commercial centers were limited in their choice to a single PCP. Since CHS has had the ALTCS contract, there has been a concerted effort to conduct physician education programs and actively recruit physicians in areas with minimal PCP supply.

The CHS also faced a problem in the availability of pharmacy services. Recognizing that it was important to preserve the local availability of those services in one commercial area, CHS contracted with the local pharmacy rather than outsource those services to potentially less expensive providers in other counties.

Other development activities have included an effort to identify a single nursing home in Pima County where younger, physically disabled persons’ needs could be met. CHS has approached the Pima County (Tucson) ALTCS program in hopes of creating a two-county initiative to support improved nursing-home services for younger disabled persons. At the time of the study, a willing nursing-home facility had been identified and two younger, physically disabled CHS members were in residence.

In Vermont, there has been the further development of long-term care facilities in the Copley area. The hospital has recently constructed a new 40-unit assisted-living facility and is now in the process of replacing an old nursing-home facility with a new 72-unit nursing home with an Alzheimer’s unit. The old nursing home is to be converted into a facility for the mentally disabled.

Conclusions and Policy Implications

Although the experience with managed-care models that integrate primary, acute, and long-term care services is limited, especially in rural areas, this is likely to change as states expand their policies and providers respond to the provisions of the BBA. Whether these programs work, how much they cost, and whether they deliver high quality care are questions of paramount policy importance. As these initiatives are designed, get underway, and are evaluated, it is critical that states and the federal government carefully
consider the special circumstances and needs of rural communities, providers, and consumers. The experience of the cases presented in this article suggests a variety of rural policy considerations.

There is no single managed-care model that fits all places and circumstances. In fact, the diversity of approaches that are being taken currently is likely to be very helpful in sorting out what works and what does not work. This diversity is particularly important to rural areas, many of which are likely to require programmatic improvisation to make managed care work. The inventory of the health care organizations, the culture of the community, the history of cooperation, state policy, and the extent of community leadership are all elements that need to be taken into account in addition to the technical difficulties of coordination. It is especially important that states, the federal government, health plans, and others provide flexibility to rural communities and providers in meeting program standards. On the other hand, it is essential that policy makers realize that one-size-fits-all is not the solution for rural long-term care service capacity building. With this understanding comes a greater need for consideration of various models that allow rural communities to select the approach most suited to their situations as they begin to evolve new long-term care service capacity.

Technical Support

Rural communities and providers will require technical support to adapt and effectively participate in new long-term care service-delivery configurations. Technical support may be needed to enable providers and communities in their development of appropriate organizational relationships necessary for creation of new financial management and information systems and for the development of quality-assurance capacity across the various long-term care delivery settings. Previously, Rowles et al. (1996) called for an alliance of rural communities and universities to engage in research that would help rural communities learn from others so that they might develop new demonstration programs for long-term care innovations. This article presents three models, but they do not represent the spectrum of possible models for the integration of acute and chronic care. More models are needed, and information on the impact of these models needs to be disseminated to other rural communities.

Arizona, of course, is unique in that, prior to the AHCCCS and ALTCS programs, there was no state Medicaid program and all services were funded at the county level. The county had a history, therefore, of being the financing mechanism for health and social services and certainly a vested interest in bringing the control of those services back to the local level. State policies
giving counties the right of first refusal in the award of ALTCS contracts and the willingness of the state staff to allow a start-up phase for the program and help resolve problems as they arose provided the necessary time and technical support to work through the early implementation phase of the system.

Professional Collaboration

Collaboration among professionals and provider organizations is critical to the development of integrated acute and long-term care services. Educational efforts targeting physician understanding of long-term care services are needed to bring physicians into the process of coordinating and managing care across the acute and long-term care continuum. To foster further collaboration, changes in state professional licensure laws and rules may be needed. Such changes may need to reflect the challenges to collaboration when communication and supervision occur across broad geographic areas. The development of new types of health care professionals that cross traditional boundaries of professionals has been recognized as an important element of rural long-term care (Rowles et al., 1996).

In addition, support for distance communication and education mechanisms, such as telecommunications and support for new technologies, are essential. Developing technologies can be expected to play an increasingly important role in fostering the types of new relationships required for development of rural long-term care service capacity.

Financing

Financial support will also be needed to support the development of new management and financing arrangements in rural areas. Specifically, flexibility of financing options, including partial capitation, case management fees, and/or other payment arrangements, are needed. Equally important will be assuring that rural long-term care systems have sufficient start-up resources and reserves if risk contracting is being contemplated.

One of the ongoing activities for states is the need to develop criteria for PSOs regarding the level at which they can assume risk. States need to determine at what level PSOs are either similar to or different from traditional insurance companies and other types of HMOs and service configurations, such as an Independent Practice Association or a Preferred Provider Organization. The fact that the BBA now allows for Medicaid-only managed-care companies may give pause to many who remember the number of initial bankruptcies that accompanied the development of Medicaid-only managed-care companies under Arizona’s system.
Protecting the Safety Net

The infrastructure of local support services for the elderly is particularly fragile in many rural communities. Developing financing and service-delivery arrangements that protect and strengthen the ability of local providers and organizations to participate in these new delivery systems is especially important. The experience in Arizona demonstrates that managed-care initiatives to integrate long-term care can serve the interests of rural communities. Long-term care service development can help preserve and build local health and long-term care infrastructures by identifying and addressing service gaps, encouraging the development of local services and organizations, and building organizational alliances that strengthen the local service system. Such alliances may in fact be essential to the creation of new long-term care options. For example, adult day programs in rural communities require strong community support and financial backing, given the funding limitations for such services in most states.

Contrary to common perceptions, rural communities may be both prepared to respond to these challenges and anxious to serve as valuable testing grounds for learning what works and what does not in rural long-term care capacity building. This is particularly evident from the Arizona cases where state policy provided rural counties with the right of first refusal in the award of the ALTCS contracts. Although not in all states, in those where a strong county infrastructure does exist, rural communities have demonstrated the initiative necessary for development of rural models that meet state expectations and help build local long-term care capacity. Conversely, in rural areas with a single source for selected services, as is the case in Vermont, purely voluntary integration models face an uphill climb.

Increasingly, health care provider organizations are restructuring and consolidating in response to managed care and other market forces. Carle exemplifies rural providers who are positioning themselves and their communities to manage care across the acute and postacute care continuum within a Medicare managed-care framework. The nature and scope of their managed-care strategies have been driven largely by incentives provided under the Medicare program; Medicaid, as the primary payer of long-term care services, has been virtually invisible in Carle’s integrated delivery-system initiatives. In the absence of clear financial incentives from the Medicaid program, however, it is highly doubtful that initiatives like Carle will develop managed-care programs that integrate the financing and management of in-home and residential long-term care services.

As in the case of Vermont, state encouragement and support alone does not counter the forces of turf protection and differences in philosophies from
making integration work. It remains up to the local continuum of agencies to make any system work. Nonetheless, as states consider long-term care contracting strategies, it will be essential that all state policy be aligned to meet the goals of such contracting. As seen in Vermont, state statutes and regulations originally designed to protect access to critical service in rural areas (home health and mental health) may create conflicting incentives for new development activities. Such incentives must be carefully reviewed and revised (if appropriate) to support capacity building for long-term care in rural communities.

Development of rural long-term care services, while challenging, is clearly possible. As more rural areas find unique solutions to their problems and share those experiences with each other, it is only imagination that will truly limit rural communities’ development of long-term care service capacity.

References


*Article accepted July 1, 1999.*

Elise J. Bolda, Ph.D, M.S.P.H., is an associate professor in the Muskie School of Public Service at the University of Southern Maine, Portland, Maine. Her research focuses on state policies governing residential care/assisted living services; issues of access in the transition between acute and long-term care services; and development and evaluation
of in-home and community long-term care services. She is the national program director for the Robert Wood Johnson Foundation's Community Partnerships for Older Adults initiative designed to help communities develop comprehensive long-term care and supportive services systems. She also conducts program and policy evaluations for Maine’s Bureau of Medical Assistance and Bureau of Elder and Adult Services.

John W. Seavey, Ph.D., M.P.H., is the Everett B. Sackett Professor and Chair of the Department of Health Management and Policy at the University of New Hampshire, Durham, New Hampshire. His major area of research is rural health care delivery with a focus on hospitals and the development of integrated service-delivery systems. His publications include two books and numerous articles in scholarly journals. During 1995 to 1996, he was a research fellow at the Maine Rural Health Research Center at the Muskie Institute.
Case Management Issues in Rural Long-Term Care Models

Cheryl Schraeder
Carle Foundation Hospital
University of Illinois College of Nursing

Teri Britt
Mayo Clinic Hospital

This article reviews research on some of the more visible long-term care case-management systems. In particular, the two generations of the Social Health Maintenance Organization (SHMO) and Program of All-Inclusive Care for the Elderly (PACE) models are described, and alternative state-level models are also examined. The potential applicability of these models to rural settings is explored. Some elements of the SHMO and PACE programs that rely heavily on a well-developed provider infrastructure may not be applicable to rural settings. However, the models share some components that are directly applicable to rural settings, including integration of social, community-based, and medical services. The article concludes with a case study from a rural case-management model in Illinois that has evolved over time and with various rural populations.

Health care in rural America has been particularly susceptible to the volatility of financing and delivery of services in the past two decades. Many aspects of rural areas contribute to the vulnerability of health care organizations. The purpose of this article is to describe the development and implementation of a rural case-management model. First, the article provides a brief overview of changes in rural health care delivery in the past 20 years, including hospitals, clinics, and managed care organizations. These changes have highlighted the continued need for development and implementation of rural case-management systems, particularly with regard to coordination with medical systems. Finally, the article will describe a study examining outcomes of the model in a Medicare risk setting using a treatment to comparison group design.
Reorganization of the health care infrastructure has affected both rural and urban settings. One of the most dramatic examples of restructuring has been in hospitals. Rural hospitals have undergone rapid and drastic revisions, in part due to their vulnerability to change relative to their urban counterparts. For example, rural hospitals are generally smaller in size, have a smaller patient base, serve a disproportionately large Medicare population, and have smaller operating budgets than urban hospitals (Hart, Amundson, & Rosenblatt, 1990; Moscovice & Rosenblatt, 1985). While the number of urban hospitals decreased by less than 2%, the number of rural hospitals decreased by 17.1% between 1983 and 1993. During that time, 522 community hospitals either closed or stopped providing inpatient services (American Hospital Association, 1994). Closings of rural hospitals highlighted issues of access and availability of health care for rural residents.

Another change in rural health care delivery structures revolves around the development of primary care sites. Several federal policies have been designed to sustain access to health care for rural Americans. One policy (P.L. 95-210) established the Rural Health Clinic (RHC) program. The intent of RHCs is to improve access to health care for residents living in designated shortage areas by providing availability of primary health care services by using cost-based reimbursement to encourage the use of nurse practitioners and physician assistants (Travers & Ellis, 1992). Certification of RHCs jointly by Medicare and Medicaid is subject to many organizational and location specifications. The RHC program grew very slowly until 1990. After that, growth increased at a rapid pace to make RHCs the largest outpatient primary care program for rural underserved communities (Thometz, 1994). Research into the adoption of provider-based RHCs by rural health hospitals suggests that rural hospitals may be motivated to adopt RHCs by pressure to imitate others because of uncertainty or a limited ability to fully evaluate strategic activities (Krein, 1999).

Hospitals and clinics represent only two types of structures that have changed dramatically in the past 20 years. The advent of managed care has also drastically changed the rural health care environment. Although it may be surprising that managed-care organizations would invest in rural areas due to limited resources spread over sparsely populated, dispersed geographic areas, managed care in rural areas is growing (Cooper, 1995). For instance, the percentage of rural counties in which a Health Maintenance Organization...
(HMO) is available increased from 14% to 28% between 1988 and 1993, and rural counties with HMOs tend to have more physicians per capita, fewer hospital beds, and higher per capita income than other rural counties (Christianson, 1995, noted in Cooper, 1995).

Growth of managed care in rural areas has been influenced in several ways. For example, in some areas, rural communities have organized Managed-Care Organizations (MCOs) to preserve or increase availability of health care services. In other cases, urban MCOs have developed services in adjacent rural areas. Another strong force stimulating growth of rural MCO development has been the pressure on state governments to control Medicaid costs through enrolling more beneficiaries in MCOs (Cooper, 1995).

Questions arise regarding the rural applications of managed-care principles that have been used in urban settings. Can the efficiencies of MCOs derived in urban settings be transferred to rural areas with relatively low population density? Several projects have been funded by the Agency for Health Care Policy and Research (AHCPR) to investigate this issue. For instance, the Oklahoma Research Center has been established to analyze and evaluate effective characteristics of public/private partnerships that create and sustain rural health primary care networks. The Maine AHCPR Rural Center is a consortium of health sciences and state health policy organizations that are assisting two rural regions in Maine to develop response strategies of changing local conditions and state and federal health reform initiatives. The Managed Health Care Reform and Rural Areas study was designed to gain an in-depth understanding of the complexities of rural HMOs and alternative delivery systems. These projects and others will help identify rural health care needs and strategies for implementing systems to meet those needs (Agency for Health Care Policy and Research [AHCPR], 1997).

Bridging the gap between the acute and long-term care systems is extremely difficult, given the barriers for patients in rural settings. Social HMOs (SHMOs) have been implemented to investigate systems that “integrate acute and chronic care for a balanced population using existing funding streams” (Social HMO Consortium, 1993). SHMOs are funded by Medicare risk capitation and by enrollee cost-sharing in the form of monthly premiums and co-payments. Medicaid participates in payment for qualifying members, although Medicaid-eligible members represent a small portion of the enrollment at the four demonstration sites. SHMOs have focused on implementing systems across the continuum and have been described as a system-focused model (Kodner, 1994; Macko, Dunn, Blech, Ashby, & Schwab, 1995). Evaluation of the SHMOs is ongoing. General findings include that case mix groups varied in expenditures. In some cases, SHMOs reported higher total
expenditures than fee-for-service, indicating a need for refinement of case management relations to medical care and selection of high risk cases (Newcomer, Manton, Harrington, Yordi, & Vertrees, 1995). Lack of coordination of case management, long-term care, and medical services continued to be problematic and contributed to issues regarding access, coordination, and satisfaction (Harrington, Lynch, & Newcomer, 1993).

**Purpose**

The many changes occurring in rural health care delivery structures have highlighted the need for integrated coordination of services across the care continuum. Care-management systems have evolved in response to the structural changes. For instance, hospital closings have changed discharge and referral patterns. Changes in primary care clinics have meant new avenues for coordination between hospital, home care, and ambulatory care systems. And, finally, managed care has brought delivery and financing together in ways that have impacted care-management systems. The following section describes the evolution of a care-management model that has developed from a model used in fee-for-service geriatric care to one used in a Medicare Risk program.

The changes in hospitals and rural health clinics and the dynamic nature of managed care have all contributed to a continuing need for rural case-management systems to coordinate care across the continuum. Lessons can be learned from the research in this area, particularly in terms of the gaps in coordination of case-management systems with the medical care system. The purpose of this article is to describe a rural case-management model that has evolved in response to evaluation of patient and provider outcomes.

**The Rural Case-Management Model**

Managing the medical care of rural patients, particularly the elderly, highlights the primary care physicians’ need to collaborate: to partner with a team comprised of a nurse, the patient and her or his family, and others as appropriate to solve problems in a holistic manner (Donaldson, Yordy, Lohr, & Vanselow, 1996; Mottur-Pilson, 1995; Starfield, 1992). Although physicians are accustomed to functioning independently in the diagnosis and treatment of illness, the concepts of holistic care, sensitivity, specificity, and predictive value are becoming more necessary and visible in clinical decision-making. The geriatric health care team must become proficient in (Wagner, 1996):
The application of the model in a rural setting necessitates adoption of flexibility in functions and roles. In the collaborative care model, the primary care physician must be skilled as a team leader, using a systems approach in coordinating care for elderly patients and encouraging the involvement of other providers. The team, which is composed of the primary care physician, nurse partner, and patient and her or his family (Shelton, Schraeder, Britt, & Kirby, 1994), needs to develop skills in planning, coordinating, and providing care of elderly patients in managed health care systems, clinical decision making, and cost-effective use of medical resources (Epstein, 1996; Hickey, 1995).

Skilled rural care must be provided and coordinated by the health care team to avoid the inefficiencies of a more fragmented medical system and to assure a proper balance of the rehabilitative, psychosocial, nutritional, and economic aspects of care (Quandt, Vitolins, DeWalt, & Roos, 1997). Along with traditional disease treatment, the team must have a better understanding and more effective strategies for preventing illness, restoring function, avoiding iatrogenic injury, and maintaining a community orientation. The complete geriatric collaborative model has been described elsewhere (Schraeder, Britt, Dworak, & Shelton, 1997).

**Patient-Focused Care**

A major theme guiding the collaborative team-care model is that the patient must be involved to the fullest possible extent in decision making for health care and services. Traditionally, clinicians provided care and patients received it, as if healthcare were a commodity. The process of providing and receiving care was never a normal market situation. However, because clinicians always had more information about the illness or condition than the patient did, the patient was placed in a passive role. The collaborative team-care model represents a departure from this traditional way of thinking in that it empowers the patient through information sharing and team building.

A primary challenge in rural team care is helping patients to make informed choices relative to their care and ensuring that they understand the personal impact of these choices. The challenge is particularly compelling with rural residents, elderly individuals or those with multiple chronic
conditions, because information, delivery systems, and care strategies are more complex and harder to navigate when caring for a constellation of conditions and lifestyle patterns.

The collaborative-care model offers the patient more choices and provides participative guidance in navigating the choices. Patients often enter the health care arena at a decision point. The strategies they have been using to care for themselves are no longer adequate; thus, they are faced with not only illness, but also the choice of how to proceed. Coordinating care across geographic boundaries and with constrained resources is often difficult in the rural setting. Participating in the health care team allows clinicians to work with the patient in identifying and defining the issue(s), describing a realistic goal, and arriving at a plan to reach the goal. Clinicians in the team model must be simultaneously observers and participants, bringing clinical expertise to the encounter but not overshadowing the patient’s views and experience. The belief undergirding the model is that individuals can participate in their own care.

Implementation of the model rested on the observation that physicians and nurses who were successful at team care paid close attention to patient preferences, lifestyle patterns, and unique individual characteristics. Patients are the only ones who can provide the health care team with a clear perspective stemming from their individual vantage points. Patients attribute unique meanings to their health, illnesses, and life patterns. Meanings may be influenced by the rural culture. These meanings shape the way care is delivered within the team framework.

The question of how best to provide care to the growing number of rural patients is superimposed on a changing health care system. The transition from fee-for-service to capitation requires an examination of the allocation of resources within systems and for each patient. The roles of health care professionals, patients, and families must be realigned to accommodate collaborative practice and the primary care physician in a more effective way to increase access, expand the population base of each physician, and improve the quality of the health care services provided.

Setting

The Geriatric Team Care model was developed at Carle Clinic, Urbana, Illinois, with support from various funding agencies. Carle Clinic Association is a medical group practice with 300 physicians and 13 branch clinics operating in central Illinois. Carle Foundation Hospital is a 290-bed facility with an associated skilled-nursing facility, a home health agency, and hospice
and ambulance service. The Carle organizations provided the infrastructure for development of the Rural Team Care Model.

**Evolution of the Model**

This section will describe preliminary studies leading to the development of a rural team-care approach that is currently being implemented in a Medicare risk program within a rural context. Evaluation of the model over time has provided information on elements that work well in geriatric population-based care and revealed elements that are less useful. The model was originally designed to work in a fee-for-service system, but it has been used to facilitate the transition from fee-for-service to managed care, particularly Medicare Risk.

The model was first used when the Kellogg Foundation funded Carle’s Outreach Program for the Elderly in the early 1990s. The model then consisted of a health educator, nurse, or social worker who made home visits, completed assessments, and arranged community services. High-risk patients were referred to the program by their physicians. Care managers worked closely with physicians to coordinate care.

Next, the model was changed to provide care management for patients with Alzheimer’s disease and their families under the auspices of the Medicare Alzheimer’s Disease Demonstration, funded by the Health Care Financing Administration. In this program, nurses and case assistants worked in 19 predominantly rural Illinois counties to provide care coordination, service authorization, education, and support for patients and caregivers. The model became family-centered, and less emphasis was placed on communication with the physician (Schraeder, Shelton, Dworak, & Fraser, 1993). Although patient and family outcomes and satisfaction were good, the missing component of integration with medical providers was an important aspect that was built back into the model in its next version.

The Geriatric Collaborative Practice Initiative targeted at-risk, community-dwelling elders and was supported by the John A. Hartford Foundation and Carle Foundation. Critical elements of the model were patient-centered care, primary care physician/nurse care-manager teams, and a start at population-based care. Nurse care managers worked with physicians to manage their panel of high-risk elderly patients and to coordinate services across the care spectrum, including home, hospital, and clinic visits. The model outcomes were measured in terms of patient and provider satisfaction, health service utilization, and clinical parameters (Schraeder & Britt, 1997; Schraeder, Britt, et al., 1997; Schraeder, Shelton, et al., 1997; Shelton et al., 1994).
Simultaneous to the development of the Geriatric Collaborative Practice initiative, the Community Nursing Organization (CNO) was implemented at Carle as one of only four sites in the country funded by the Health Care Financing Administration. The Carle site represented the rural setting while other CNOs provided an evaluation of the program in urban settings. The goal is to evaluate nurse coordination of services with capitated payment for Medicare beneficiaries. In the CNO, the model is used to provide care for healthy, moderate, and high-risk elders by coordinating services to meet physical, psychosocial, and environmental challenges. The CNO has provided opportunities for evaluation of the model under a capitated financing system. The program is using a randomized treatment to comparison group design to evaluate the model, compared to usual care on the outcomes of service use, cost, satisfaction, and clinical parameters (Schraeder, Lamb, Shelton, & Britt, 1997). This project is ongoing.

**Research Questions**

Evolution of the model generated several research questions pertaining to use of the rural team-care approach in Medicare Risk. The current study is funded by the John A. Hartford Foundation. The research questions guiding the investigation include the following:

1. How does the rural team-care model impact service utilization and total cost of care when compared to traditional practice for an identified at-risk sample?
2. How does the rural team-care model impact mortality, preventive health practices, health status, and functional status when compared to traditional practice for an identified at-risk sample?
3. How does the rural team-care model impact patient and provider satisfaction when compared to traditional practice for an identified at-risk sample?

**Design**

The study uses a longitudinal panel treatment to comparison group design. The treatment group consists of Medicare Risk enrollees who live in Carle’s catchment area and are designated as at-risk through an initial screening process. The at-risk individuals in the treatment group are assigned to a physician/nurse team. The teams receive information reporting and feedback as described below. The comparison group consists of those Medicare Risk enrollees who live in the Springfield and Peoria catchment areas and are designated as at-risk through an initial screening process. Individuals in the treatment and comparison groups will be followed for a 3-year period.
**Intervention**

The key processes at play in the model are team care, provider education, population risk assessment, and integrated reporting and feedback. These processes have emerged as critical elements necessary for success of prior versions of the model. Ongoing evaluation and redesign of the model have highlighted the importance of exploring the lessons learned from the past and incorporating this knowledge into reconfiguring the model.

**Team care.** Team care consists of patients, physicians, nurses, and mid-level providers working in tandem to prioritize patient needs, coordinate services, ensure access to the right level of care from the right provider, and evaluate care outcomes. The physician is team leader and attends to the medical needs of patients. The nurse works in all patient-care venues (home, hospital, clinic), utilizing a proactive, preventive approach. The patient is responsible for communicating health care needs and goals and alerting the team to health changes.

**Provider education.** Provider education is the second key process. Carle developed and implemented an educational service to physicians, nurses, and administrative staff addressing the issues of managed care. Modules include quality care, collaborative care, risk assessment and reporting, clinical resource management, and quality outcomes. Sessions are held in the practice site and facilitated by a physician team leader.

**Population risk assessment.** Population risk assessment involves administering a health questionnaire on patient enrollment and at subsequent intervals. The information gathered in the assessment is used to stratify the patient into risk categories (well, moderate, at-risk). The patient is then assigned to a care team that uses the information to start a care plan and service coordination.

**Integrated reporting and feedback.** Information is used to provide feedback to providers about the characteristics of patient panels and clinical outcomes. Many reports have been developed, including the Patient Characteristics Report (summary of findings from health questionnaire), the Patient Panel Report (listing of all patients in a provider’s panel with specific health information), and the Active Caseload Report, Provider Branch/Location Report, and Administrative Report. Each of these reports has the goal of streamlining information and optimizing clinical decision making.
Preliminary analyses indicate that at baseline, the treatment (Carle) and comparison (Joint Venture: Springfield and Peoria) groups are not significantly different in terms of demographic variables (see Table 1). Additionally, health conditions of the at-risk groups were similar between the groups at baseline (see Table 2). The percentage of patients screened into each of the risk categories was similar across treatment and comparison groups at baseline (see Table 3).

Other outcomes being measured in the rural care model include satisfaction, service use, health status, and other clinical measures. To date, it appears...

---

### Table 1. Patient Demographics: Treatment and Comparison

<table>
<thead>
<tr>
<th>At-Risk</th>
<th>Carle (n = 467)</th>
<th>Joint Venture (n = 340)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>73 10</td>
<td>72 12</td>
</tr>
<tr>
<td>Female</td>
<td>52</td>
<td>57</td>
</tr>
<tr>
<td>Health status (fair/poor)</td>
<td>46</td>
<td>50</td>
</tr>
<tr>
<td>Five or more medications</td>
<td>46</td>
<td>43</td>
</tr>
</tbody>
</table>

### Table 2. Health Conditions: Treatment and Comparison (at-risk) (in percentages)

<table>
<thead>
<tr>
<th>Condition</th>
<th>Carle (n = 467)</th>
<th>Joint Venture (n = 340)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>28</td>
<td>32</td>
</tr>
<tr>
<td>Congestive heart failure</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>23</td>
<td>20</td>
</tr>
<tr>
<td>Coronary artery disease</td>
<td>21</td>
<td>22</td>
</tr>
</tbody>
</table>

### Table 3. Screened Status (90% screened): Treatment and Comparison Groups (in percentages)

<table>
<thead>
<tr>
<th>Risk Status</th>
<th>Carle</th>
<th>Joint Venture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well</td>
<td>37</td>
<td>34</td>
</tr>
<tr>
<td>Moderate</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>At-risk</td>
<td>23</td>
<td>24</td>
</tr>
</tbody>
</table>

Preliminary Results

Preliminary analyses indicate that at baseline, the treatment (Carle) and comparison (Joint Venture: Springfield and Peoria) groups are not significantly different in terms of demographic variables (see Table 1). Additionally, health conditions of the at-risk groups were similar between the groups at baseline (see Table 2). The percentage of patients screened into each of the risk categories was similar across treatment and comparison groups at baseline (see Table 3).
that the key processes of team care, provider education, population risk assessment, and information monitoring and feedback are successful in impacting patient outcomes in a positive way. Further evaluation is an ongoing process and will provide more information on the critical elements of the model as it is used in the managed-care arena.

Conclusions

The rural health-care arena is changing at an unprecedented rate. Service delivery structures and processes have been reconfigured and continue to change. Research into alternative delivery systems and care management for rural patients is ongoing. Integration of medical, social, and community services continues to be a challenge, exacerbated by the changing services available, new financing and delivery structures, and persistent inequalities inherent in rural health care. This article describes a model of rural case-management that has endured the changes in rural health and has served several at-risk patient populations. Evaluation of the model has lead to modifications, particularly changes that make the model more successful in integrating the medical system into the care-management schema. The model is currently being tested in a Medicare managed-care environment. Preliminary findings and future measurement strategies have been described.

References


*Article accepted July 1, 1999.*
Cheryl Schraeder, Ph.D., R.N., F.A.A.N., is the head of the Health Systems Research Center at Carle Foundation Hospital in Urbana, Illinois and an assistant professor at the University of Illinois College of Nursing. Her research interests include geriatric case management, primary care, health promotion, and nurse/physician ambulatory-care models for rural elders.

Teri Britt, Ph.D., R.N., received her doctorate in health policy and administration at Penn State University. Dr. Britt is a nursing research specialist at Mayo Clinic Hospital in Scottsdale, Arizona. Dr. Britt’s research interests include clinical outcomes, gerontology, and health promotion behaviors. Her publications have centered on innovative health care delivery models for underserved populations.
State and Local Initiatives and Research Questions for Rural Long-Term Care Models

Linda C. Kuder  
Joyce Beaulieu  
Graham D. Rowles  
University of Kentucky

This closing article describes rural long-term care models, including the Community Partnership Program in Eau Claire, Wisconsin; Mountain Empire Older Citizens, Inc., in Big Stone Gap, Virginia; and the Oregon Senior and Disabled Services Division, and relates these efforts to the concepts of the preceding research articles. Overarching themes are discussed, such as flexibility and local control, consumer-driven focus, the importance of health policy at both the state and federal levels, the significance of partnerships, and new professional roles. Finally, research questions in the areas of long-term care service development in rural areas and crosscutting issues in case management are identified to guide future research and program development efforts.

In previous articles of this volume, authors have described current research relating to models of integrated long-term care in rural areas. These articles review research about developing integrated models, programs that integrate funding streams, rural case-management models and initiatives, and expanding long-term care service capacity in rural communities. In addition to these contributions by rural researchers, rich discussions and insights into these issues were gained in the Lexington conference from presentations of state and local providers from geographically diverse regions of the country.

This article will present the key elements of four functioning, rural, integrated long-term care models. The second section of the article will summarize the key themes that emerged from presentations and discussions of researchers, providers, and conference participants. The third section will outline the major research questions identified by the collective group that...
must be addressed to facilitate the movement toward integrated models of long-term care in rural areas.

Rural Initiatives

As previously stated, the number of existing models of integrated acute and long-term care models is limited. The specific application of these models to rural areas narrows the field even further. However, some innovative communities and states have been moving toward integrated-care models as exemplified in the following programs.

Community Health Partnership. Wisconsin has initiated the Wisconsin Partnership Program, integrating Medicare and Medicaid funding streams, private foundation grants, and service delivery systems for acute and long-term care services. Projects are currently available in five counties, including one rural site in Eau Claire, Wisconsin, where Community Health Partnership, Inc. is in operation. This program provides an innovative case-management service for physically disabled adults with capitation rates from both Medicaid and Medicare. A network of acute and long-term care providers have pooled their resources to provide stop-loss protection and have developed a management information system, a claims processing system, and clinical protocols for use across the program (Hodgson, 1999).

Hallmarks of Community Health Partnership include a provider partnership spanning across a wide range of services: medical inpatient, outpatient, pharmacy, dental care, home- and community-based services, and social and health-related services; a multidisciplinary team for care coordination; consumer involvement in decision making; and emphasis on preventive services and quality improvement.

Saucier and Fralich (2001 [this issue]) discuss the intuitive appeal of integration of acute and long-term care services under a capitated system. Incentives include reducing cost shifting and providing services to consumers at the appropriate level of care by stimulating greater availability of less costly community-based services. They point out the importance of aligning the goals of the varied community partners involved in the integration project. As Saucier and Fralich point out, these goals may be different or in conflict with the overall goals of integration, thus producing very different outcomes than intended. The Wisconsin experience offers a unique opportunity for future evaluation of the assumptions studied by Saucier and Fralich.

Mountain Empire Older Citizens, Inc. (MEOC), in Big Stone Gap, Virginia, is an example of a rural-based agency that has integrated multiple
health and social services under one organizational umbrella. This agency, created in 1974, is designated to serve as the area agency on aging (AAA) and public transit provider for four counties in rural southwest Virginia. Because of its location in rural Appalachia, the area is extremely isolated, with limited community resources. MEOC, through partnering and building on local strengths to meet identified community needs, has amassed an operations budget of $5 million from numerous sources (Medicare, Medicaid, Title XX, Title III, HUD, state transportation, job training, nutrition local funds, and private grants) and offers more than 25 different services, all with outreach components (Horton, 1999). These services range from adult day care to wellness programs for seniors and everything in between. “The mission of the organization is to prevent the unnecessary and inappropriate institutionalization of at risk persons, to provide support for families in caring for their family members at home, and to serve as a responsible advocate on issues affecting elderly persons and their families” (Horton, 1999).

The keys of success for this Appalachian service network are the leadership of the AAA and maintenance of local control over multiple services and funding sources. These two concepts—local control and local leadership—are identified in the article by Bolda and Seavey (2001 [this issue]) as key factors facilitating the development and integration of service delivery in rural communities.

The Oregon Senior and Disabled Services Division is the most advanced effort of a state to provide integrated acute and long-term care services. Oregon’s system represents a consolidated statewide approach to community-based care for the older and disabled population of the state. In 1981, the Oregon legislature passed a statute mandating coordination of community services, creation of health and social services for all seniors, preventive and primary health care services, and prevention of inappropriate or premature institutionalization. A single state agency was created to administer Medicaid long-term care, the Older Americans Act, and services for the disabled, and to work in partnership with local governments, including rural communities, to develop a system of community-based programs. Oregon’s experience over the past 18 years illustrates the two types of integration, clinical and functional, discussed by Coburn (2001 [this issue]). Oregon’s success in limiting, and even decreasing, the number of nursing home beds exemplifies the success in downward substitution of home- and community-based services for more expensive nursing home and other institutional-based care, an incentive Coburn sees at the heart of the integration model of care.

Oregon’s 18 AAAs are the focal point of the delivery system. The local AAA is given the option of administering the Medicaid program or being a
traditional AAA. The system has spurred a redesign of community-based home care options such as adult foster homes, residential-care facilities, assisted living, and specialized living facilities. Key elements of the program have been technical assistance to long-term care providers and caregivers in design of home-like environments and flexibility in regulation, encouraging new market development. A new role that has emerged is that of the nurse consultant. The nurse has a significant role in identifying need and in teaching lay caregivers and individuals about their care needs. This role differs from the traditional nurse case-manager role in its emphasis on educating the family and enabling them to be their own case managers (Hannum, 1999).

**Overarching Themes**

A number of overarching themes emerge from the papers and provider presentations in the 1999 conference. These themes are strongly reminiscent of the seven principles identified by Beaulieu, Rowles, and Myers (1996) in the introductory article (Beaulieu, Rowles, & Kuder, 2001 [this issue]) and reinforce their applicability as we examine and develop models of long-term care for rural areas.

*Flexibility and Local Control*

Clearly, as stated by Coburn (2001 [this issue]) and reflected by others, there is no one model of integration that fits all communities. Integration of services is not the gold standard, but it is rather a means to an end—improved health care delivery—and not an end in itself. As noted by Horton (1999) from MEOC, “All change is local.” Strengths and opportunities of individual communities must be taken into consideration as service models are developed. These models will take different structures, depending on what services are available and the local political and social institutions, both formal and informal.

*Consumer-Driven Focus*

Just as the local service milieu will differ in rural communities, so will local demands and perception of their needs. Consumer decision making is important, not only at the macrolevel of service delivery, but also at the microlevel of individual responsibility for one’s own health care. Informed decision making by an educated patient is the key.
This concept, although seemingly straightforward, challenges many of our accepted practices in health care. What are we doing to educate patients and family members to be their own care managers? What are we doing to teach patients to manage their chronic diseases? What choices are we giving patients in their health care? Emphasis on education of patients and family members and their involvement in the decision-making process is important. The current demonstration in Rochester, New York, is testing modules for health education of lay caregivers (Eggert, 1999).

Importance of Health Policy

As noted earlier, in reality, we find few models of integrated service delivery in rural areas, and not very many to boast of in urban areas. Where efforts to create integrated models are emerging, state policy is crucial to success. There must be a vision and an impetus to overcome existing barriers and provide incentives to coordinated care delivery. The best example is perhaps Oregon, where the state has taken a consolidated approach to streamlining administration, integrating funding systems, and focusing on developing programs to meet consumer demand. Similarly, in Wisconsin, the Health Partnership program has been developed to pilot an integrated system of delivering acute and long-term care services in a variety of locales. Many rural communities lack the infrastructure and expertise to manage integrated-care systems, so technical assistance is important in developing and maintaining the systems that are developed.

Federal policy is also important. The impact of the Balanced Budget Act of 1997 (BBA) already has been felt in home health services in urban and rural communities alike. It is not clear what impact implementation of other provisions of BBA will have, especially on rural hospitals. Although the BBA approved expansion of the Program for All-Inclusive Care of the Elderly (PACE) by authorizing provider status, regulations have been slow in being promulgated. The PACE program has demonstrated success in integrating Medicare and Medicaid funding to provide care for a nursing home–eligible population, bearing full risk for acute and long-term care services. Application of the PACE model to rural sites remains to be fully tested (Baskins, 1999).

Partnerships

Successful integrated-care models in rural communities have involved creation of partnerships and linkages with other organizations through either affiliation agreement, contract, or formal network development. Managing
such partnerships can be a complex task. Commitment may be voluntary, resulting in little recourse if one or more members fail to cooperate. Communication and building of trust across medical and long-term care provider networks is a challenge to both urban and rural partnership development. Lack of competition in small service areas may assist or hinder this process.

**New Professional Roles**

Integrated models of care require new roles for professionals. The ability to work with teams of professionals and to work across professional boundaries is important. The nurse-consultant role that has emerged in the Oregon health plan is an example. The nurse consultant completes assessment and reassessment, identifies and provides teaching of care needs to the family and patient, and provides communication linkage between the family and health providers.

A similar position has emerged in Rochester, New York, where health-promotion nurses make home visits for patient and family education. These nurses teach the family to access care services and manage their care needs (Eggert, 1999). Carle Clinic in Illinois uses a primary care physician and nurse-manager team to coordinate care for high-risk elderly patients. Training for positions such as these, including training in how to teach, is emphasized.

**Research Needs**

The following sections suggest research questions and potential areas that need to be explored, as identified by conference participants.

*Research on Long-Term Care Service Development in Rural Areas*

*Sustaining partnerships in long-term care.* What is the impact of the reluctant partner in integrated community models? What are the best practices in building partnerships and sustaining them? What are barriers to creating partnerships?

*Developing staff (personal caregivers) for long-term care.* Research is needed in high schools exploring the effectiveness of innovative approaches to attracting students to long-term care. For example, what is the impact of
requiring high-school students to be involved in community service? What are effective methods of recruiting and retaining staff in long-term care and in rural areas? What is the impact of salary level and career ladders in long-term care organizations? What are effective models of family caregiving?

Nursing-home involvement in the community. What can be done to increase nursing-home interaction with the community? There needs to be a study of nursing homes with identified plans for community involvement and facilities that have expanded the range of community services offered. What are effective ways to increase use of telehealth in remote areas?

Personnel. Is long-term care a low priority for rural physicians? Do rules requiring physician supervision of midlevel practitioners create a barrier to using these professionals in rural areas? How can physicians be better connected to long-term care? Can reliance on physicians in long-term care be decreased without jeopardizing care?

Credentialing. What are the outcomes of the credentialing of health professionals? What is the effectiveness of innovative approaches such as use of vouchers, lay health outreach workers in rural areas, and payment of family members to provide care in nursing homes?

Empowerment for consumers, residents, and family members. What are the outcomes of approaches empowering consumers, nursing-home residents, and family members to be more involved in the care process?

Financing. How can financial incentives be realigned to encourage physician participation in long-term care? Is managed care feasible in rural areas? There is a need for states to model rural payment mechanisms for integrated-care systems.

Research centers. What can be done by state Offices of Rural Health and rural health research centers to help communities create the infrastructure necessary to effectively implement and sustain funded programs? State Offices of Rural Health need to be encouraged to encompass long-term care in their needs assessments and community-planning efforts.

Medicaid. There is a tremendous need to develop new, creative models and to align the interests of Medicaid with community and consumer interests. Models need to be evaluated to determine why a particular program may work in some areas and not in others.
Research on Case Management

Populations. Which individuals and caregivers need case management? What are the needs of special populations such as the elderly, migrant elders, those aging in place, return migrants to rural areas, and disabled children? What is the impact of self-directed case management?

Outcomes. What are the appropriate outcomes for case management—reduced emergency room use, cost effectiveness, appropriate hospitalization, customer satisfaction—and how can these be measured? What is the effectiveness of case management? Who is providing case management: health maintenance organizations, physicians, clergy, nurses?

Efficacy. The forms and functions of case management and their attendant efficacy need to be better understood. Is there overlap of case-management services provided by multiple agencies, creating redundancy? What is the necessary level of professional training and background for case managers?

Nontraditional case management. What forms of nontraditional, informal case management exist? What is the effectiveness of approaches such as providing information to families and consumers, using alternative medicine, and using alternative types of case managers? Are these models especially useful in rural areas that lack a sufficient supply of health professionals?

Measurement. The measurement of cost, quality, efficiency, and effectiveness of case management needs to be standardized. The functions of case-management services need better definition.

Conclusion

A number of states dealing with large, rural populations are providing improved long-term care services for the growing population of the aged. Many issues that cut across both urban and rural environments are being addressed through model program development and evaluation. However, there remains a dearth of research specific to rural long-term care models. The climate is ripe for collaborative efforts between direct service providers and researchers. Many questions need to be addressed from the research perspective to inform the development of efficient and effective long-term care services in rural areas. The contributions of authors in this volume suggest avenues of inquiry and illustrative models.
References


*Article accepted July 1, 1999.*

---

*Linda C. Kuder, Ph.D., M.S., retired in July as the associate director for education and community services for the Sanders-Brown Center on Aging at the University of Kentucky, the director for the Ohio Valley Appalachia Regional Geriatric Education Center, and the Co-PI for the Interdisciplinary Rural Training Program. She was responsible for overall policy and program development, program administration, budgetary oversight, and supervision for all educational and community services activities and staff at the Center on Aging from 1982 to 1991. She is currently a senior associate at the Center on Aging and an adjunct associate professor in the College of Allied Health Professions.*

*Joyce Beaulieu, Ph.D., M.P.H., is an associate research professor in the University of Kentucky Center for Health Services Management and Research and an associate faculty member of the Markey Cancer Center and the Sanders-Brown Center on Aging. She holds a joint faculty appointment in the Kentucky School of Public Health. Her research focuses on rural health care for cancer and other long-term care issues and on public health performance measures. She has extensive experience with evaluation of health policy and health care programs.*

*Graham D. Rowles, Ph.D., is a professor of geography, behavioral science, and nursing and an associate director of the Sanders-Brown Center on Aging at the University of Kentucky. His research focuses on the experience of aging in different environmental contexts. Recent publications include “Habituation and Being in Place,” in the Occupational Therapy Journal of Research, and “Effects of the Quality of Dyadic Relationships on the Psychological Well-Being of Elderly Care Recipients” (with B. Nunley and L. A. Hall) in the Journal of Gerontological Nursing.*
Divine Benefit Versus Divine Contribution
Pensions: Approaches to Monitoring
Improvements in American Retirement
Income Security Over the Next Decade

Neal E. Cutler
Widener University

Introduction: Individual
and Societal Dualism in
Retirement Income Security

We come together today to talk about the future of retirement income security in the United States. With a bull market on Wall Street and encouraging concern about Social Security in Washington these last few months, it might appear that there is not much of a problem. But there is. In fact, it may be argued that the so-called Wealth Effect of the bull market, by which lots of people perceive that they are wealthier than they really are, makes today’s discussion even more critical.

A few years ago, we would have been talking about the older population, but today that would severely limit the discussion. From a scientific point of view, gerontology is not the study of old people but, rather, the systematic study of the multiple processes of aging, including middle aging. As demographic documentation of this trend, Figure 1 compares the growth in the middle-aged population (ages 45 to 64) with the traditionally defined older (65+) population from 1950 to 2025.

The rather noticeable upward slope in the middle-aged data around 1995 signals the start of the middle-aging of the 1946 to 1964 Baby Boom. These millions of Boomers (they are not babies any more) are not only tomorrow’s elderly but also today’s retirement savers, investors, and planners. It is in this...
context that as financial services professionals, gerontologists, and policy makers, we need to focus our attention on the future of retirement security.

The usual model or metaphor for retirement income is the three-legged stool, with a possible fourth leg (Cutler, 1997c), as some analysts now talk about income from jobs taken after official retirement: Social Security, employer pensions, personal savings/investments, and postretirement employment income.

Although Social Security clearly remains central to the mosaic, critical changes are taking place in the very essence of the American retirement income system. Over the past two decades, defined-contribution pension plans (in contrast to traditional defined-benefit pensions) have come to dominate the financial landscape of retirement policy, planning, and practice. The essence of defined-contribution pensions is that it is the individual worker, the employee, and not the employer or the government, who is ultimately responsible for the size of his or her future monthly pension check.

This pension plan evolution, however, is only one very visible component of the more pervasive changes that are transforming the fundamental nature of the individual consumer’s wealth span. For example, the relative span of time we have to acquire retirement resources is getting shorter while the length of the retirement/expenditure stage of the wealth span is getting longer. An even more serious dimension of the problem, as highlighted in the second section of this lecture, is that the wealth span is becoming more complex. For example, two-earner families are no longer the exception; middle-
agers now plan for their elderly parents and their own old age; and all are taking place in the context of the transition to personal responsibility and defined-contribution pensions.

This reliance on personal retirement planning and responsibility does not mean that retirement income security has become simply a private issue for a narrow financial elite. Quite the contrary; this increasing reliance on personally managed sources of later-life income for the vast majority of retirees, even as both political parties battle to strengthen the guarantee of Social Security, represents a critical issue of public concern and social policy.

So, what is the problem? To put it starkly: What happens if these personal retirement accounts turn up empty? Or, if not literally zero dollars, what if the Boomers’ accounts simply are not large enough to support a reasonable standard of living over the course of a long retirement?

Imagine millions and millions of healthy, politically experienced, activist, middle-class, 70-year-old Boomers who are barely able to make ends meet. It might not exactly produce rioting in the streets, but... Or, maybe the political version of such rioting produces gigantic political pressures on Congress to increase Social Security and Medicare benefits on a massive scale.

The INVESCO Lectures: Measuring and Monitoring Change and Progress

Even without such a doom and gloom scenario, it is apparent that retirement income security is a dual issue. The overall challenge is as follows: After the components of the problem are defined, then individuals and institutions can implement solutions that include both the individual and societal components. There is, however, a very important intermediate piece that defines the main purposes and directions of the INVESCO lectures.

It is about monitoring change as 21st century America moves toward the goal of improving retirement income security. That is, assume that new ways of investing, saving, and funding pension plans are developed and implemented. The major challenge—introduced today and expanded over the course of the next four INVESCO lectures—is to develop a series of measuring devices, indexes that will monitor progress toward the goal of improving the retirement income security.

The third section of this lecture, consequently, outlines three approaches, three beginnings, for the development of new social indicators for measurement and monitoring of changes in retirement preparation. They are the following: a new direct measure of retirement accumulations, monitoring the gap between poverty and Social Security, and measuring and monitoring financial literacy in the context of retirement income security.
Conceptualized as consumer-oriented questions, these issues are directed to the individual level of analysis, asking what people know, understand, and are doing. But, because there is a critical policy dimension, retirement income security is very much a dual issue on several levels. It is both an individual problem and a societal problem; it requires both personal solutions and social-policy solutions; and, therefore, we need to monitor change at both the individual level and the societal level.

In the context of this fundamental dualism, therefore, our concluding section identifies strategies and topics for the next four INVESCO lectures on Retirement Income Security. The task is both conceptually and operationally to define what it takes to monitor change in retirement and financial knowledge, attitudes, and behavior; in turn, the monitoring of these changes must be carried out at both the microindividual and the macrosocietal levels of analysis.


Perhaps the best way to illustrate both the individual/societal dualism and the increasing complexity of retirement income security is by reference to a heuristic model of the human life span in financial terms, which my colleagues and I refer to simply as the *Wealth Span model* (Cutler, 1993, 2002; Cutler & Gregg, 1993; Gregg, 1993).

The Wealth Span model (see Figure 2) simply divides the life span into two stages: the Accumulation Stage and the Expenditure Stage. Of particular importance are the contrasts between then and now. The specific dates used here, 1930 versus 2000, are not intended to be scientifically precise or
important. Rather, the conceptual framework is one that compares changes in
the Accumulation Stage and the Expenditure Stage from back then to nowa-
days. In particular, the model serves to illustrate two important historical
trends: changes in balance and increases in complexity. Across both trends,
we see the significance of the dual challenge to individuals and to social
policies.

Changing Balance

The first set of Wealth Span changes, from then to now, focuses on the
changing balance in the number of years between the two stages. Compared
to back then, the Accumulation Stage is now shorter; that is, there is a fewer
number of years for the accumulation of retirement wealth.

The personal and societal dynamics of this change are not difficult to
define. Back then, most people completed their formal education in high
school; relatively few went through 4 years of college. Consequently, people
entered the labor force relatively early in their wealth span; that is, the Accu-
mulation Stage started earlier. The end of the Accumulation Stage, the begin-
ning of retirement, has traditionally been defined as around age 65, the
full-benefits age of Social Security, although, over the past several decades,
actual retirement has come at younger ages. Thus, the traditional Expenditure
Stage, both actually and as perceived by the public, was relatively short—
beginning at around age 65 and lasting another decade or so.

By contrast, in response to demographic and cultural trends, nowadays the
Accumulation Stage is shorter and the Expenditure Stage is longer. Ameri-
cans tend to stay in school longer (college, technical training, graduate and
professional school), delaying the official beginning of the Accumulation
Stage. And, due to earlier retirement, the Accumulation Stage also ends ear-
er. As part of these individual and societal changes, the number of years of
expenditure is growing. Just as early retirement marks an earlier start to the
Expenditure Stage, increasing longevity extends its length.

In sum, the first set of Wealth Span changes focuses on a changing balance
in the number of years in each of the two stages. From the perspective of
retirement income security, the problem is that there are now fewer years to
accumulate, and what is accumulated now must last for a substantially longer
period of expenditures. Of course, the definitional line between work and
retirement is becoming more fuzzy. So too is the life-span distinction
between accumulation and expenditure: Twenty-five to 40 years of retire-
ment includes plenty of need and opportunity for additional accumulation.
Nonetheless, this historical Wealth Span change in the relative balance
between the Accumulation and Expenditure Stages serves to document the
key individual-level and societal-level trends that directly affect retirement income security.

**Increasing Complexity**

As important as this changing balance is, the increasing complexity of the Accumulation Stage is a more significant characteristic of Wealth Span trends. As the increasing importance of personally invested retirement funds, the saga of the double-income plural-pension families (DIPPIES), the increasing middle-aged responsibility for aging parents, and the dramatic shift from defined-benefit to defined-contribution pensions each illustrate, this complexity puts a greater burden of responsibility on the individual worker and investor, and it therefore magnifies the longer term severity of any mistakes or bad luck which may be encountered.

**Changes in Sources of Retirement Income**

Social Security has been and will continue to be a significant source of retirement income for a large number of Americans. But, two patterns are important as we look to the future. First, it is not only rich people who derive some retirement income from personal investments. Second, future retirees are even more likely than yesterday’s and today’s retirees to drawn on these personally managed sources of income.

Figure 3 portrays the distribution of retirement income sources for current retirees (in 1995). Social Security is the most important source of income for the least wealthy quintiles of the older population. But, across the income
spectrum, even less-wealthy retirees receive retirement money from non-Social Security sources. For most retirees, personal sources are the second largest source. These data describe retirees whose financial planning reflects previous decades of pension and Social Security expectations. A look to the future suggests that the income profile is moving even farther into this direction of personal sources of retirement income.

Figure 4 compares the retirement income profiles of current retirees versus pre-retirees as reported in January 2000 (National Council on the Aging, 2000). Not surprisingly, for current retirees Social Security represents the largest component of retirement income. The picture of the future is demonstrably different, as reported by the 18 to 54 age group. Adding up the Defined Contribution Pension Plan and Personal Savings pieces, two thirds (68%) of their expected income comes from these personal sources. Social Security and traditional Employer Pensions are clearly expected to play a supporting role.

The DIPPIES

Compared to the Ozzie and Harriet days of he works/she cooks, nowadays it is more likely that both husband and wife are in the labor force. In their working years, they are double-income families, and they are also earning plural-pension dollars toward retirement. Hence, DIPPIES, a light-hearted acronym with a quite serious purpose. These days, a DIPPIE couple is likely to be accumulating the following:

- two Social Securities,
- two employer pensions,
• two supplemental tax-sheltered retirement accounts,
• additional savings and investments,
• home equity, and
• life insurance.

Such a profile of resources, however, does not necessarily mean that the couple is rich. As one critic shouted from the back of the room when I first lectured publicly about the DIPPIES, “...it takes two incomes these days just to make ends meet!” And so it does for many families. The point of the DIPPIES concept, however, is complexity. Aside from the dollar value of all these assets, the complexity of the choices, investment strategies, tax understanding, and even record-keeping is increased for the family, almost independently of the overall amount contained in the several accounts. The complexity is substantially greater if either or both of the couple’s pensions are defined-contribution rather than traditional employer-guaranteed defined-benefit pensions.

Accumulations for Care of Elderly Parents

Much attention has been given to the impact of increasing longevity on individuals (outliving one’s money, Alzheimer’s disease) and on national programs (Social Security, Medicare). Less attention has focused on the impact of longevity on the core social institution of American life, the family. In a word, increasing life expectancy has dramatically increased the likelihood that aging middle-agers will have living elderly parents.

The notion of the sandwich generation is certainly a part of this inter-generational story. When Boomers are parents in their thirties and forties, they have sandwich responsibilities (financial, caregiving) for their teenage and young adult children and anticipation of caring for their own parents. This soon changes: In their fifties and sixties, Boomers become the middle-aged children of elderly and frail parents. Aside from whether or not it is still a sandwiched situation, aging middle-agers are likely to have increasing personal and financial responsibilities for elderly parents. Hence, their own Accumulation Stage years are, once again, made more complex.

Figure 5 abstracts data from the research of Professor Peter Uhlenberg’s studies of historical demography. The patterns show that as recently as 1940, a 50-year-old child had only an 8% likelihood of having both parents alive. This has more than tripled (to 27%) by 2000, and there is an 80% chance of having at least one parent alive (Uhlenberg, 1996).

The results are even more dramatic as we look at the patterns for 60-year-old children. By the year 2000, there is a 44% chance that a 60-year-old will
have at least one parent still alive. And one does not need to be an actuary to figure out that the parent of a 60-year-old child is not 70 years old. Thus, toward the end of the Accumulation Stage and in the first years of the Expenditure Stage, middle-agers nowadays have a much more complex Wealth Span than in years past.

From Defined-Benefit to Defined-Contribution Pensions

The biggest change and the major contributor to the complexity of the Accumulation Stage is the trend over the past generation from traditional defined-benefit pensions to the-individual-is-personally-responsible defined-contribution pension plans. In 1975, three quarters of all pension plan participants were in defined-benefit plans. Over the subsequent years, the growth of defined-benefit plans has been dramatic.

With trillions of dollars involved, it is not surprising that there is substantial debate over the merits of the two kinds of pensions. In fact, the title of this first INVESCO lecture was chosen to draw attention to the fact that neither kind of pension is “divine.” Neither of the two (each with its strengths and weaknesses) provides a complete response to the challenge of retirement income security. Indeed, the key differences between the two provide the context for the primary theme of this presentation, measuring change and improvement in American retirement income security.

**Defined benefit: The traditional gold watch pension.** Pensions are traditionally thought of as rewards for good work and as necessary wealth for a comfortable old age, that is, something designed for the good of the worker. An alternative conceptualization, however, is that pensions were initially developed as a device used by the employer to control his workforce. Given

<table>
<thead>
<tr>
<th>AT AGE 50</th>
<th>1900</th>
<th>1940</th>
<th>1960</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>at least 1 parent alive</td>
<td>39%</td>
<td>52%</td>
<td>67%</td>
<td>80%</td>
</tr>
<tr>
<td>both alive</td>
<td>4%</td>
<td>8%</td>
<td>14%</td>
<td>27%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AT AGE 60</th>
<th>1900</th>
<th>1940</th>
<th>1960</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>at least 1 parent alive</td>
<td>7%</td>
<td>13%</td>
<td>24%</td>
<td>44%</td>
</tr>
</tbody>
</table>
the importance of later-life dollars to the worker, pensions were designed originally to retain experienced workers.

The carrot used to retain workers was the guarantee of a defined-in-advance amount of retirement money. In turn, this defined benefit would be based on years of service: The longer the service the larger the benefit. Further, the monthly pension amount was linked directly to the monthly (or yearly) salary for the final 3 to 5 years of employment—typically the highest salary years.

Because of vesting rules, the employer could require as many as 25 years of employment before the worker could receive any of these earned pension benefits. That is, if the employee chose to leave the job or was fired with only 23 years of service, he could forfeit rights to any pension benefits.4 (Just consider the number of TV police shows with plot lines in which the “bad cop” begs not to be fired because he has only 8 months to go, or else he will lose his pension.)

After all is said and argued, however, the most dominant characteristic of the defined-benefit pension is the fundamental premise that the retirement benefit is not only defined in advance, but also that this dollar-defined benefit is guaranteed by the employer (or the union). It is someone else’s responsibility, not the workers’, to ensure that the contributions to the accounts are made and that the investment of funds is sufficient such that at the end of the day, the funds are available to pay the retirement pension checks.

Over the past 25 years, social policy has evolved to view these defined-benefit guarantees so important that, among other legislation and regulations, the federal government has created a national pension insurance program. The Employee Retirement Income Security Act of 1974 established the Pension Benefit Guaranty Corporation, which sells pension insurance to employers (or their pension programs). The employers pay insurance premiums based on their risk. For example, the greater the risk due to poor pension investment or accounting in the past, the higher the insurance rates. Bad driving record, higher insurance rates! Then, if the pension plan cannot meet its financial obligations to the retiree, the insurance will pay all or most of the defined benefits.

*Defined contribution: Personal control and personal responsibility.* Over the past decades, there has been a major change in U.S. worker participation in pension plans. Although this lecture is not the place to review the several arguments as to why this shift is taking place, our concern is with the key differences between the two types of pensions and what these differences tell us about the future of retirement income security in the United States.
Defined-contribution pensions are more publicly known as Individual Retirement Accounts (IRAs), 401(k) plans, and Keogh plans. The key difference is in what is defined (or guaranteed). In defined-benefit pensions, it is the pension’s output (a defined amount of retirement money) that is defined (guaranteed) in advance. By contrast, in defined-contribution pensions, only the contribution, the input, is defined or guaranteed.

In the current high-tech economy, many companies do not see the need for a device, such as a traditional guaranteed pension benefit linked to long years of employment, to retain workers. To the contrary, for many employers, workforce management is more closely connected to the freedom to downsize, to change direction, to recruit new workers, and to encourage others to leave. In this context, the defined-contribution pension is more attractive precisely because it does not encourage workers to stay with the company simply to qualify to receive retirement benefits.

As noted, the key difference and characteristic of the defined-contribution pension is that only the contribution, or input, into the pension account is provided by the employer. The eventual later-life retirement benefit, the output of the account, is not guaranteed or defined in advance. While for some employees the company provides a number of different kinds of investment alternatives with a range of risk and return characteristics, for many employees choices about how and where to invest this input is their own responsibility.

Whether or not the employer provides the account options, in defined-contribution pension plans it is, ultimately, the employee who must make the choices of how to invest this input that is intended to grow into future retirement income. Within these choices, as with any investment whose growth is not guaranteed by someone else, there is the risk that the money will not grow or will not be sufficient for later-life financial needs. Low-risk, low-return investments may not produce sufficient income. Higher risk, higher return choices may not yield the hoped-for results. Bad judgment, poor strategy, and plain bad luck can conspire to transform the defined-contribution input into a small output years later when the money is needed.

Aside from all the comparisons and historical reasons for the trend, from the perspective of the future financial well-being of the current employee the key difference between the two types of pensions can be summarized simply by one question: Who is responsible for the future value of my pension? For defined-benefit pensions, they are. For defined-contribution pensions, I am.

As suggested, neither pension offers all the answers, neither is “divine,” and both have positive and negative qualities for the employee and the
employer. As we look to the future, however, these differences and imperfections are magnified by two important and interrelated societal trends.

First, over the past 50 years, social policy has given the American worker much more choice in when to retire. Social Security and most private pensions offer a range of early (i.e., earlier than the traditional age 65) retirement options. At the same time, age-based mandatory retirement in most occupations has been outlawed, giving us the right to work as long as we want or are able. Of course, exercising that right is based on a number of health and financial factors.

The recent National Council on Aging’s (NCOA’s) Myths and Realities of Aging 2000 national survey documents the degree to which this range of choice has had the consequence of substantially eroding the traditional linkage of age and retirement. The following are responses to the straight-forward question: Do you consider yourself to be retired or not? Forty-five percent of respondents ages 65 to 69, the traditionally defined just-retired age group, say “no,” not retired, or “yes,” retired but working either full-time or part-time. Further weakening the age/retirement linkage, 38% of the traditionally defined pre-retiree 55 to 64 age group say they are retired.

How the retirement decision is made further documents the degree to which money rather than age is the more dominant factor. The NCOA study asked respondents how important each of several factors will be (or was for retirees) in their decision to retire. Two thirds (64%) said that the amount of savings accumulated is very important, and 59% said that a change in health would be/was very important. By contrast, employer pressure (15% very important) and reaching a specific age (24% very important) are much less significant components of the retirement decision.

Second, given this increasing societal complexity and individual variation, there is accumulating evidence that the American worker may not have sufficient financial literacy to make the best retirement investment decisions. In some cases, this may be a lack of information and knowledge and, in other cases, a lack of ability or confidence to apply information appropriately. Our own national financial literacy study found that only 32% of Boomers said that they were confident they knew enough to choose the right mutual funds for their retirement investments (compared to 66% confidence in buying a new car and 45% confidence in buying a home computer) (Cutler, 1997a). Given the personal financial responsibility that defined-contribution plans demand, this kind of financial illiteracy is an even more critical issue.
Measuring Changes in American Retirement Income Security

Measuring change in retirement practices and policy over the next 5 to 15 years should be based on the following:

1. The Wealth Span and financial planning for later life have changed dramatically. In particular, early retirement and longer life expectancy combine to produce a shorter Accumulation Stage in which wealth must be accumulated for a longer Expenditure Stage.
2. The Accumulation Stage has become substantially more complex than it was for previous generations, including such financial planning challenges as two-career families (the DIPPIES) and anticipating social and financial care for elderly parents.
3. The biggest complexity is that the pension system itself is changing from defined-benefit to defined-contribution pensions, from they are responsible for the eventual size of your pension income to you are responsible for it.
4. Retirement options are expanding and now include phased retirement and partial retirement along with traditional full retirement. Even more critically, recent research documents that retirement decision making is no longer an age-dominated or even work-dominated set of choices, but it is largely influenced by financial and health factors.
5. Responses to these changing retirement income security needs will be a function of changes in both individual behavior, including knowledge and literacy, and institutional behavior, including services, products, rules, inducements, and requirements.

The combination of cultural trends, pension changes, and Boomer demographics means that retirement income security requires new social policy and financial innovation. The call for the systematic monitoring and measurement of changes is based on the realistic view that whichever proposals are offered and implemented as part of the national policy debate about retirement income security, for the majority of American workers Social Security will continue to provide only a portion of their retirement income. That is, for the vast majority of Americans, overall retirement income security will continue to rest on additional pension, savings, and investment opportunities.

Consequently, at the same time that the policy and political communities are proposing new solutions, financial and gerontological researchers must develop new ways to monitor the proposals and changes and to measure the degree to which they are successful. Given the dualism discussed earlier, the indexes developed to monitor trends must be developed to measure change at both the societal and the individual levels of analysis. We consider the following:
The Monitoring of Retirement Preparation as a New Social Indicator

Do we really need new indexes, new public and social indicators? Don’t we suffer from statistical overload already? The most accurate answer is: Yes, no, and maybe. To be sure, our society has many social indicators, most of which seem to be negative in their focus: crime, pollution, divorce, and accidents. And there is a substantial supply of financial and economic indicators reflecting inflation, consumption, taxes, trade deficits, and poverty. Most of these are macro or aggregate indicators, describing the population, the economy, or the society. Although public opinion surveys are often cited in television news and newspapers, other than election campaign measurements of voting likelihood and partisanship there are few nationally prominent indexes based on the attitudes and behavior of citizens and consumers. A prominent example is the University of Michigan Consumer Sentiment Index, but it is the exception.

As we consider the development of new national indexes that measure trends in retirement income security, two different but complementary functions are necessary for success, as illustrated by the prestigious University of Michigan Index of Consumer Sentiment. First and fundamentally, it must accurately describe and report the underlying trends, which means that the index must be scientifically valid and reliable, conceptually clear, and methodologically sound. Since the 1950s, the Consumer Sentiment Index has been based on representative surveys of the national population, which were originally annual surveys but are now based on quarterly and sometimes monthly surveys. The Index is not a single-question indicator but is constructed from responses to multiple questions asked in each survey; in turn, the same questions are asked repeatedly over time.

A second function that the successful index must perform is more public and less scientific in nature: An effective social indicator does more than just indicate (Miringoff & Miringoff, 1999). Dr. Marc Miringoff and Dr. Marque-Luisa Miringoff, directors of the Fordham University Institute for Innovation in Social Policy, document that development of a social indicator can serve to capture the imagination of the public and policy makers and focus public attention on changes in important aspects of the country’s well-being. The standard numerical measures of health and finance, they argue, are an incomplete view of the true social health of country.
With the development of the index measurements proposed here, the nightly television news would regularly report trends in the retirement income security readiness of American consumers alongside the usual reports of inflation, trade deficits, and stock market fluctuations. The new indicators would monitor changes in the underlying components of retirement income security (e.g., financial literacy, confidence about retirement savings, changing patterns of saving and investment). As public and private institutions develop products and services to enhance retirement income security, the new index would monitor improvements at both the national and the individual level.

Over the next decade, millions of middle-aged Boomers will be (or should be) at the height of their retirement preparation, financially and psychologically. In this important context, the new index would do more than just fulfill the first function of accurately monitoring trends. It would also serve the second function by focusing systematic public attention on the several components of retirement income security.

Public reporting about the new index will reinforce to the public that this is a critical issue that they need to understand and that requires personal (and maybe political) involvement. In this way, a highly visible public index of retirement security will make a strong contribution to financial literacy, concern, and behavior.

The Problems (limitations) With Current National Measures of Saving

Over the past several years, the United States has been engaged in substantial debate about the national savings rate. Americans, we have been repeatedly told, have one of the lowest savings rates in the world, especially in contrast to the Japanese savings rate (Schulz, Borowski, & Crown, 1991). The continuing debate about savings behavior in general will be substantially illuminated by the new indexes of retirement-oriented savings and investment. Two stark examples of the misunderstanding of American savings illustrate the urgent need to develop new measures of retirement finance preparation.

Throughout the 1980s, American savings rates were compared unfavorably with Japanese savings rates. In 1990, I was invited to testify before the Senate Finance Committee under the chairmanship of Senator William Roth. The hearings reviewed a Super IRA, the basic ideas of which were enacted into law a few years later as the Roth IRA. My testimony focused on the fact that throughout the years Japan was seen to have had a higher savings rate (especially the 1960s through the 1980s) and the Japanese population was
already substantially middle-aged and primed to prepare financially for their retirement.

During these same years, one third of the U.S. population, the Baby Boom, was largely in its teens and younger adult years (hardly the wealth-span stage for substantial retirement-oriented savings and accumulation). The testimony (Cutler, 1991) demonstrated that the middle-aging of the Baby Boom sets the stage for greater retirement-oriented savings in the United States. To the degree (I suggested in 1990) social policies can reflect and build on demographics, the time is right to enact policies to encourage retirement-oriented savings and investment. In 2000, with the Boom now moving through middle age, the time is right for new indexes to measure and monitor retirement financial behavior.

The second fundamental problem in measuring retirement-oriented savings is that the criticism that Americans do not save simply does not fit with the facts: Literally billions and billions of dollars pour into mutual funds and other investment vehicles every month, many of which go into company or individual retirement accounts. This apparent dilemma reflects how savings in the United States is officially measured. The primary official measure of savings, developed and maintained by the Department of Labor, was developed to measure the amount of money in the economy available for capital investment. It was not designed to measure the degree to which individuals put money into a savings account, an investment account, or an accumulating retirement-oriented account. In fact, when a consumer buys shares in a mutual fund, this is defined and tallied as spending and not as savings.

This basic measure of the U.S. national savings rate is called the National Income and Product Accounts (NIPA) (Yablonski, 2000). In the NIPA, savings is simply the difference between income and spending, all at the macro, aggregate level of analysis, not the individual level. (Income = salaries, interest received by the population as a whole. Expenditures = taxes paid, purchases made.)

There are at least three substantial, interrelated problems with the NIPA germane to the issues of retirement income security.

1. The measure of savings is indirect. It calculates the difference between national income and national expenditures and fails to recognize the obvious savings-oriented behavior of individual consumers, such as saving for the kids, college education, retirement, or just the proverbial rainy day.
2. There is nothing in this measure that speaks directly to the issue of retirement-oriented savings. Because traditional passbook savings accounts pay very low interest rates, most retirement-directed accumulations are done in investment and brokerage accounts rather than savings accounts.
3. Because of these complexities and distortions, the public awareness function of a good social indicator is lost. Such aggregate, capital investment indicators do not educate, inform, or encourage consumers about trends in retirement-oriented savings and investment.

Three New Monitors of Retirement Income Security

The goal of creating new measures of retirement income security is to reliably and validly monitor changes in preparedness over time. The periods of time in question are years, not decades, so that the public, financial institutions, and public agencies can see measurable progress in retirement preparedness over the next several years as middle-aged Boomers move into their retirement-age years. Keeping in mind that the function of social indicators is to capture public attention and thereby educate, and measure, I suggest three kinds of measures. Overall, these monitors reflect the fundamental proposition discussed earlier, that retirement income security is both an individual concern and a societal issue.

1. A direct individual-level measure of retirement accumulation that focuses explicitly on retirement-oriented savings and investment behavior and that also can be aggregated into national financial profiles.
2. An aggregate measure of the gap between poverty and Social Security among older citizens, monitoring patterns in how that gap can be reduced.
3. The components of an individual-level index to monitor changes in public financial literacy and retirement-related attitudes, knowledge, and behavior.

A Direct Measure of Retirement Accumulation

As noted, the official NIPA measure of American savings measures savings only indirectly, as the residual between income and expenditures. Even to the degree that it offers some index of aggregate national savings, it does not illuminate the question of retirement-directed accumulation. By contrast, several national databases are currently available that will allow us to directly monitor the retirement savings and investments of American men and women. In recent years, for example, the Internal Revenue Service has produced Public Use Samples of federal tax returns, with appropriate safeguards for anonymity, such that contributions to tax-sheltered retirement contributions can be studied over time.

A more direct set of measures can be developed from a new database developed by the Employee Benefit Research Institute and the Investment Company Institute. This database includes the account balances of millions of retirement account holders, and it includes both financial information (the
current and changing pattern of the account balances) and such basic social
indicators as age, gender, kind of job, and family structure.

**Monitoring the Income Gap Between Poverty and Social Security**

Although the analysis of pension plan contributions and IRA tax deductions monitors changes in retirement income for a majority of Americans, our focus is equally on the poorest retirees, men and women who rely primarily on Social Security but whose monthly checks may not keep them out of poverty. The initial task is to define the magnitude of the effort required, in terms of both dollars needed and persons involved. The continuing task is to monitor the degree to which the gap between poverty and the higher levels of retirement income is being reduced.

The first critical issue is to define the gap between poverty and some specified higher level of income. Although there is no one measure of income that universally defines financial well-being, to start the dialogue, we can use the official Census Bureau poverty designations of poor and near-poor. In 1998, the year for which the most complete data are publicly available, the poverty level for an older (age 65+) household was $8,836. Near-poor is defined as 200% of the official poverty level, that is, $2 \times 8,836 = 17,672$. Thus, a near-poor person (or family) is one whose income is between the poverty level and double-poverty level, that is, above $8,836 but less than $17,672 in 1998.

Although other above-poverty goals could be used, at this point, the issue is to identify the dollar levels and number of people involved in moving older men and women out of poverty to the higher threshold (defined here as 200% of poverty level). Consider the following three questions.

1. What is the average dollar amount necessary to move one older person from poverty to near-poverty? (a) $8,836 = poor, that is, 100% poverty level, for an older household in 1998. An older person with this income or less is defined as poor. (b) $17,672 = near-poor, that is, 200% of (a). An older person whose income is above (a) but less than (b) is near-poor. (c) $8,836 = average per-person dollars needed to move an older person from the (a) 1998 poverty level up to (b) near-poor.

2. What is the demographic magnitude of raising the older population from poor to near-poor?

3. What is the role of Social Security in facilitating such a move? The concern with old-age poverty focuses attention on those older men and women for whom Social Security is their only or their largest source of money income. In 1998, 40% of men and women age 65 and older relied on Social Security for at least 80% of their annual income (Federal Interagency Forum on Aging-Related Statistics, 2000). So, to what degree will their Social Security benefits raise these people above the poverty level? The average Social Security
benefit for persons age 65 and older in 1998 was $8,869—basically the same as the old-age poverty threshold of $8,836. The answer is that, on average, Social Security payments alone will not move these lowest income elders much closer to the near-poor $17,672 threshold.

The numbers in Table 1 are the 1998 population data for old-age poverty, using the official 100% threshold of $8,836 as the definition of poor. Because poverty is differentially distributed within the older population, the separate age-group poverty profiles are also listed.

These numbers are read as follows: Of the 32,394,000 older Americans in 1998, 10.5%, or 3.4 million, had an annual household income that was at or below the official old-age poverty line of $8,836. The complexity of the task is shown by the fact that although the 75+ age group is smaller, its higher poverty rate produces a larger number of persons below the poverty line. (For the real calculations, separate tables would be calculated for one- and two-person households, linked to the one- and two-person household poverty rates.)

In broad outline, the 1998 data initially suggest that 3.4 million persons age 65+ are candidates for being raised from below the poverty level of $8,836 to a higher level. If that higher level is defined as the official near-poverty threshold of $17,672, then an additional $8,836 in retirement income per poor, older person is needed. Because annual Social Security payments are, on average, near the poverty level, current Social Security benefit levels are not likely to raise many poor elderly above the poverty level.

These numbers are speculative and suggestive. There are at least three (and no doubt more) limitations to this numerical illustration.

First, official poverty rates and average Social Security payments are different for one- and two-person older households. The analysis that will be done in support of a true index measure requires poverty data, population numbers, and Social Security benefits data linked and categorized by age and household size. Nonetheless, the numbers shown here can be used to start the conceptual discussion and map the analytic process.

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Total Number of People (N)</th>
<th>Poverty (%)</th>
<th>Poverty (N)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total 65+</td>
<td>32,394,000</td>
<td>10.5</td>
<td>3,401,370</td>
</tr>
<tr>
<td>65 to 74</td>
<td>17,843,000</td>
<td>9.1</td>
<td>1,623,713</td>
</tr>
<tr>
<td>75+</td>
<td>14,551,000</td>
<td>12.2</td>
<td>1,775,222</td>
</tr>
</tbody>
</table>
Second, for most families, Social Security is not the only source of income. Indeed, a major concern of our discussion is that savings, investments, and defined-contribution pensions are becoming more and more widespread throughout the population. Even nonrich retirees have some income from these other sources. Therefore, the data needed to realistically estimate the demographic gap between one income/poverty level and a higher level must include information describing the other income of all families.

On the other hand, third, it is precisely for the poorest elderly that there is (a) less non–Social Security income and (b) a lower-than-the-national-average Social Security payment of $8,869. For these severely poor elderly, increases in Social Security and related programs will make a real contribution to ameliorating the problem.

Financial Literacy and Retirement Income Security

Parallel to monitoring changes in savings and investment behavior, trends in retirement-oriented financial literacy should also focus on development of an index that directly measures the attitudes and behavior of consumers and citizens. A comprehensive index will include:

- general consumer orientations toward retirement;
- financial literacy and knowledge;
- expectations, worries, and confidence; and
- retirement-oriented savings and investment behavior.

Fortunately, these components of a new index are already available. That is, the development of new national surveys to monitor changes in public retirement behavior and attitudes can build on substantial prior research. Examples include the following: the University of Michigan consumer research cited earlier; the Retirement Confidence Survey,\(^{10}\) sponsored by the Employee Benefit Research Institute over the past 10 years in collaboration with Greenwald Associates; the Financial Literacy 2000 (Cutler, 1997b) project at Widener University; and Myths and Realities of Aging 2000,\(^{11}\) developed by the National Council on the Aging. These and other studies have developed questionnaire items that can be adapted into a new comprehensive index (or indexes) to monitor retirement income security on a forward basis. Four examples follow.

*How important is money in the decision to retire (compared to other factors)?* An example of an important general orientation toward the role of money in the retirement decision process is illustrated by responses to the
following NCOA *Myths and Realities of Aging 2000* question: How important do you think each of the following items (will be/was) in your decision to retire? Seventy percent of the 18-to-54-year-olds, but only 41% of older retirees, said that accumulated savings would be, or was, a very important part of their retirement decision, a substantial future-oriented difference (see Table 2).

**What sources of money will be important in retirement?** The NCOA survey documents important differences between current and future retirees (see Table 3). These results accurately mirror the decades-long transition in the United States from traditional employer-provided defined-benefit pensions to defined-contribution pensions. Two thirds (42% + 22%) of the younger respondents identify income sources for which they hold personal financial decision-making responsibility.

**Personal financial confidence in your future retirement.** *Financial Literacy 2000* asked respondents a very direct question: When you think about retirement, are you confident that you will have enough income when you retire, or are you concerned that you may not have enough income when you retire? Although half (50%) of the public is confident (vs. 46% concerned), Boomers are noticeably less confident (42%) than either younger adults (18 to 24: 57%) or pre-retirees (55 to 64: 52%). And, not unexpectedly, among lower income Boomers, confidence is even lower (34%) (see Table 4).
Financial consumer confidence: Mutual funds. Given these low levels of confidence, monitoring of trends should identify the potential causes of these feelings of low confidence and high concern. One explanation is that a general lack of future retirement confidence is caused, or influenced, by low levels of specific financial consumer confidence. In this regard, our final example considers financial literacy and mutual funds.

Mutual funds have become a critical element of institutional and personal retirement planning. After all, mutual funds were invented to simplify investment choices, spread risk through diversification, and empower the individual consumer to buy into the professional investment expertise of specialists. The Financial Literacy 2000 project included a basic information question, “Mutual funds require you to invest a minimum of $1,000 each time you add to your account, true or false?” and a confidence question, “How confident are you that you know enough to make a good decision on purchasing shares in a mutual fund?” (Cutler, 1997a) (see Table 5).

Consumer confidence is two to three times lower than basic knowledge (a pattern seen for both higher and lower income respondents), suggesting that financial literacy involves more than just a set of facts. When mutual funds confidence is compared to a range of financial and nonfinancial consumer decisions, the need for improvement, and for monitoring that improvement, is seen even more clearly. Boomer confidence in purchasing the following items is as follows:

<table>
<thead>
<tr>
<th>Table 4. Boomer Concern About Retirement Income Sufficiency (in percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confident</td>
</tr>
<tr>
<td>Higher income boomers&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Lower income boomers&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> Plus or minus $50,000 annual income.

<table>
<thead>
<tr>
<th>Table 5. Boomer Financial Literacy About Mutual Funds (in percentages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mutual Funds</td>
</tr>
<tr>
<td>Higher income boomers&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Lower income boomers&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
</tbody>
</table>

<sup>a</sup> Plus or minus $50,000 annual income.
• a television 81%
• an automobile 65%
• a mortgage 57%
• life insurance 56%
• a home computer 46%
• mutual funds 29%

For all of these examples, more meaningful information will come by way of fuller analysis of the data in terms of income groups, retirement plans, and more specific age categories. Where these are cross-sectional one-time measurements, trends in responses to these kinds of questions will be the essence of the monitoring function.

The INVESCO Lectures in Retirement Income Security

My final task in this inaugural INVESCO lecture is to offer suggestions for the next four lectures. My job today has been to set the stage, to document the several pieces of the retirement income security challenge, and to describe promising directions for the development of an index or indexes by which change and progress can be monitored. In suggesting these four topics, however, I would quickly add that as part of this critical intellectual process, there must be substantial fact-finding, analysis, and (above all) continued practitioner/academic interaction in the months between the lectures.

Lecture #2: The Experience of “Other Systems”

As someone trained in political science, my first thoughts are to look to the experiences of other countries. Countries are laboratories for examining the operation of social policies, including retirement systems. Political scientists have developed research models for comparing national systems that will produce the most useful laboratory-like comparisons. One strategy is to compare countries that are very different from one another to observe if their fundamental national differences are reflected in their retirement practices. The alternative strategy is to compare very similar countries (e.g., Sweden vs. Norway vs. Denmark) and see the degree to which national similarities produce similar retirement systems (Przeworski & Teune, 1982). More generally, in response to their own patterns of population aging, several countries are debating the public merits of defined-contribution versus defined-benefit
pensions, and they are considering the privatization of parts of their public pension systems.

Other countries, however, are not the only systems that should be examined. Systems within the United States also should be included in the comparative analysis, for example, such large systems as TIAA-CREF, the oldest defined-contribution pension system in the United States. Because TIAA-CREF has been polling its members for more than 25 years, it has substantial data that could be used to model a national Retirement Income Security Index. Other national systems include the military and federal civil service retirement systems. Finally, the 50 states offer yet another set of laboratories for comparing varieties of pension systems, including the 50-state government-employee systems and hundreds of education, public safety, and municipal worker systems that also could be examined.

Lecture #3: The Social Policy Context

The third lecture should focus on the social policy realities that proposals to improve retirement income security will surely encounter. Many pension systems have contractual obligations and actuarial assumptions that may not be easily changed. Defined-contribution and defined-benefit pensions are intertwined in a complex web of tax laws and regulations. Part of the argument is ideological: Some experts say that tax incentives for retirement saving do nothing more than allow rich people to shift their investments from taxable to tax-sheltered accounts, with no new savings really taking place. Other estimates show billions in net new investments and savings as a consequence of increases in pension contribution limits. Part of the issue is philosophical: What should citizens be required to do about their personal financial future, versus what they should be encouraged to do? What is a nation’s social and moral responsibility if some citizens simply choose not to save for their old age? Or, what if they give it a decent try, but bad luck and poor judgment leave them with insufficient retirement resources? The social policy discourse should be a central part of the INVESCO lectures.

Lecture #4: The Empirical Indexes

There are several indexes that need to be developed to monitor changes in retirement income security. The fourth INVESCO lecturer should begin now to develop the conceptual profile and methodologies needed to test alternative index measures. As mentioned earlier, there are several specialized databases from which the requisite bits of data can be drawn. Additionally,
Census Bureau and Department of Labor agencies and Web sites include hundreds of data files that can support the index development tasks.

It would be especially useful to design indexes that use factors and variables already present in various financial, demographic, and polling data archives, such as the older age poverty and Social Security comparisons noted above. In this way, the index can be computed retrospectively as well as prospectively. We can then not only monitor the basic trends in retirement income security but also correlate the index with a variety of other events over time in the social, political, and financial landscape.

**Lecture #5: Monitoring Progress in Retirement Income Security**

I am purposely suggesting a generic title for the fifth lecture, clearly subject to change and interpretation. The suggestion is simply that the fifth lecture will be the occasion to reflect on the importance, development, and impact of the new index measurements.

The public impact of this work, however, will not happen automatically. As discussed in the second section, social indicators do more than just indicate. They do not have to be passive reflections of what is happening, but they should also be used to stimulate discussion, raise awareness, and inform and educate both the public and the (private and public) policy makers. Thus, the fifth INVESCO lecture should also strategize on how to publicly proclaim the results of the analysis and the monitoring efforts.

Thus, building on the fourth lecture’s report of the development and dissemination of the INVESCO Index of Retirement Income Security, we envision the fifth lecture concluding in the following ways.

The index tells journalists that empirically monitored trends in retirement security is a continuing, regular story. This means that journalists can anticipate it, schedule background interviews, and plan human interest sketches around it.

In turn, these stories communicate to the public that retirement investing and planning represents an important part of their lives, their thinking, their planning, and their behavior.

The index tells politicians that this is a significant piece of the policy environment. They have to be concerned about it—what happens if the trend looks bad or good. Speeches will be made for inclusion in the Congressional Record so that reprints of the speeches can be printed and mailed to constituents.

Politicians will debate the index on the Sunday morning talk shows. Public television will develop a documentary that includes the *National Retire-
ment Income Security Quiz. Presidential candidates will call for it to be reformed. CNBC's Squawkbox will link it to major increases in day-trading. Jay Leno will make jokes about it. And, The Wall Street Journal editorial page will criticize it for promoting socialism. Measures of success!

Notes


2. Thanks to Professor Richard Rose, Director of the Public Policy Institute, Strathclyde University, Glasgow, Scotland, for introducing me to the DIPPIES idea.

3. Fronstin reports that total assets held in individual retirement accounts at the end of 1997 amounted to $1.9 trillion. Further, the 1997 amount predates more recent changes such as higher limits for family contributions and the then-new Roth IRAs. See Fronstin (1998).

4. The Employee Retirement Income Security Act of 1974 significantly reduced the minimum vesting period for most pensions; that is, employers could no longer require 20 or 25 years of work before pension benefits were owned by the employee. See Schulz (1995).

5. Defined-contribution pensions are much more portable than defined-benefit pensions, and they are thus more attractive to the modern high-tech employee. In most Individual Retirement Accounts, for example, the money can remain in the same bank or brokerage account even as the worker moves from company to company. Additionally, the relatively simple deposit of a defined-contributed amount into such an account also makes defined-contribution plans easier to administer, which contributes to their attractiveness to employers. For additional comparison see Cutler (1996).

6. A more graphic presentation of these National Council on Aging data can be found in Smith (2000).

7. The Investment Company Institute reported that from January through June 2000, the net new cash flow into stock mutual funds in the United States (new purchases minus redemptions) was $212.5 billion. The total for money market mutual funds was $11.6 billion. The total holdings of mutual funds in all categories (stocks, bonds, and money market) at the end of June 2000S was $7.1 trillion. Although some of the stock fund dollars are no doubt speculative investments, many of these billions function as retirement- and future-oriented set-asides and investments, that is, savings. See Investment Company Institute (2000).


9. In fact, official poverty levels are defined for different-size households; only one-person and two-person households are used for age 65+ households. In 1998, the official poverty level was $7,836 for a one-person older household and $9,836 for a two-person household. Although this discussion uses the simple unweighted average of $8,836 to illustrate the measurement concept, empirical estimates would combine the appropriate age-specific and household-size-specific poverty rates and population numbers.

10. The home page of the Retirement Confidence Survey (RCS) Web site includes an index of reports and results from the annual RCS surveys from 1991 to 1999. Available at: www.ebri.org/rcs.index.htm

12. For example, see the regular issues of The Participant: Quarterly News From TIAA-CREF and the quarterly TIAA-CREF Research Monitor for current and trend studies of the individual attitudes and aggregate behavior of TIAA-CREF participants.

References


*Article accepted May 1, 2001.*

Neal E. Cutler, Ph.D., holds the Boettner/Gregg Endowed Chair in Financial Gerontology at Widener University in Chester, Pennsylvania. For more than 25 years, his demographic and survey research has focused on the impact of aging, including middle-aging, on issues of finance, health, retirement, and family. He is also Director of Survey Research for the National Council on Aging with responsibility for the Myths and Realities of Aging project. He is an associate editor of the *Journal of Financial Service Professionals* and on the editorial boards of *The Gerontologist* and the *American Journal of Alzheimer’s Research*. *His newest book, Advising Mature Clients: The New Science of Wealth Span Planning, will be published by John Wiley in 2002.*
INDEX

to

JOURNAL OF

APPLIED GERONTOLOGY

Volume 20

Number 1 (March 2001) pp. 1-136
Number 2 (June 2001) pp. 137-256
Number 3 (September 2001) pp. 257-376
Number 4 (December 2001) pp. 377-512

Authors:

ARCURY, THOMAS A., see Quandt, S. A.
BANE, SHARE DECROIX, see Bull, C. N.
BEAULIEU, JOYCE, GRAHAM D. ROWLES, and LINDA C. KUDER, “Current Research in Rural Models of Integrated Long-Term Care,” 379.
BEAULIEU, JOYCE, see Kuder, L. C.
BELL, RONNY A., see Quandt, S. A.
BERNARD, MIRIAM, CHRIS PHILLIPSON, JUDITH PHILLIPS, and JIM OGG, “Continuity and Change in the Family and Community Life of Older People,” 259.
BOLDA, ELISE J., and JOHN W. SEAVEY, “Rural Long-Term Care Integration: Developing Service Capacity,” 426.
BRAUN, KATHRYN L., see Browne, C. V.
BRITT, TERI, see Schraeder, C.
BULL, C. NEIL, see Bane, C. N.
COBURN, ANDREW F., “Models for Integrating and Managing Acute and Long-Term Care Services in Rural Areas,” 386.

The Journal of Applied Gerontology, Vol. 20 No. 4, December 2001  508-511  
© 2001 The Southern Gerontological Society

508

FRLICH, JULIE, see Saucier, P.

HAYS, JUDITH C., see Turner Goins, R.

HOBBS, GERRY, see Turner Goins, R.

HOYT, DAN A., see Whitbeck, L. B.

ISHIKAWA, HISANORI, see Shibusawa, T.


KELNER, MERRIJOY, see Wellman, B.


KUDER, LINDA C., JOYCE BEAULIEU, and GRAHAM D. ROWLES, “State and Local Initiatives and Research Questions for Rural Long-Term Care Models,” 471.

KUDER, LINDA C., see Beaulieu, J.

LADITKA, JAMES N., see Laditka, S. B.

LADITKA, SARAH B., and JAMES N. LADITKA, “Effects of Improved Morbidity Rates on Active Life Expectancy and Eligibility for Long-Term Care Services,” 39.

LANDERMAN, LAWRENCE R., see Turner Goins, R.


MCCulloch, B. JAN, see Lawrence, S. A.

McDONALD, JULIANA, see Quandt, S. A.

MAEDA, DAISAKU, see Shibusawa, T.

MATHEIS-KRAFT, CAROL, see Roberto, K. A.

MONTGOMERY, RHONDA J. V., see Kosterliski, K.

OGG, JIM, see Bernard, M.

PHILLIPS, JUDITH, see Bernard, M.

PHILLIPSON, CHRIS, see Bernard, M.


ROWLES, GRAHAM D., see Beauleiu, J.

SAUCIER, PAUL, and JULIE FRALICH, “Financing and Payment Issues in Rural Long-Term Care Integration,” 409.


SCHKADE, JANETTE K., see Johnson, J. A.
SCHRAEDER, CHERYL, and TERI BRITT, “Case Management Issues in Rural Long-Term Care Models,” 458.
SEAVEY, JOHN W., see Bolda, E. J.
SHIBUSAWA, TAZUKO, HISANORI ISHIKAWA, and DAISAKU MAEDA, “Determinants of Service Awareness Among the Japanese Elderly,” 279.
TYLER, KIMBERLY A., see Whitbeck, L. B.
VITOLINS, MARA Z., see Quandt, S. A.
WEEKS, LORI E., see Roberto, K. A.
WELLMAN, BEVERLY, MERRIJOY KELNER, and BLOSSOM T. WIGDOR, “Older Adults’ Use of Medical and Alternative Care,” 3.
WELTE, JOHN W., see Reifman, A.
WHITBECK, LES B., DAN A. HOYT, and KIMBERLY A. TYLER, “Family Relationship Histories, Intergenerational Relationship Quality, and Depressive Affect Among Rural Elderly People,” 214.
WIGDOR, BLOSSOM T., see Wellman, B.
YOUNGBAUER, JOHN G., see Kosloski, K.

Articles:
“Access to Health Care and Self-Rated Health Among Community-Dwelling Older Adults,” Turner Goins et al., 307.
“Case Management Issues in Rural Long-Term Care Models,” Schraeder and Britt, 458.
“Continuity and Change in the Family and Community Life of Older People,” Bernard et al., 259.
“Current Research in Rural Models of Integrated Long-Term Care,” Beaulieu et al., 379.
“Determinants of Service Awareness Among the Japanese Elderly,” Shibusawa et al., 279.
“Effects of an Occupation-Based Intervention on Mobility Problems Following a Cerebral Vascular Accident,” Johnson and Schkadé, 91.
“Effects of Improved Morbidity Rates on Active Life Expectancy and Eligibility for Long-Term Care Services,” Laditka and Laditka, 39.
“Family Relationship Histories, Intergenerational Relationship Quality, and Depressive Affect Among Rural Elderly People,” Whitbeck et al., 214.
“Financing and Payment Issues in Rural Long-Term Care Integration,” Saucier and Fralich, 409.


“Innovative Rural Mental Health Service Delivery for Rural Elders,” Bane and Bull, 230.

“Introduction: Anguish of the Observed But Unseen,” Rowles, 139.

“Meaning and Management of Food Security Among Rural Elders,” Quandt et al., 356.

“Mental Health Care Provision for Rural Elders,” Rathbone-McCuan, 170.


“Models for Integrating and Managing Acute and Long-Term Care Services in Rural Areas,” Coburn, 386.

“Older Adults’ Use of Medical and Alternative Care,” Wellman et al., 3.

“Program Development and Innovation,” Bull and Bane, 184.

“Rural Long-Term Care Integration: Developing Service Capacity,” Bolda and Seavey, 426.

“Rural Mental Health and Elders: Historical Inequities,” Lawrence and McCulloch, 144.

“State and Local Initiatives and Research Questions for Rural Long-Term Care Models,” Kuder et al., 471.

“Utilization of Respite Services: A Comparison of Users, Seekers, and Nonseekers,” Kosloski et al., 111.