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Studies on Rural Elderly Care

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A Multifocal Study of Geriatric Assessment in Rural Pennsylvania

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The Center for Rural Pennsylvania is a bipartisan, bicameral legislative agency that serves as a resource for rural policy within the Pennsylvania General Assembly. It was created in 1987 under Act 16, the Rural Revitalization Act, to promote and sustain the vitality of Pennsylvania's rural and small communities.

Copies of the individual reports are available by contacting the Center for Rural Pennsylvania, 200 North Third St., Suite 600, Harrisburg, PA 17101, telephone (717) 787-9555, email: info@ruralpa.org.

Preface

Pennsylvania has the second largest population of elderly in the nation. In 2000, for example, 16 percent of rural Pennsylvania's population was 65 years old and older, and between 1990 and 2000, the number of rural seniors increased nearly 8 percent.

As Pennsylvania's rural population ages in place, questions surrounding health care services continue to surface and call for answers. To gather data and provide information on some of these issues, the Center for Rural Pennsylvania targeted two elder-related issues, namely comprehensive geriatric assessment and long-term care, as part of its 2000 and 2001 grant programs.

In 2000, Dr. C. Virginia Palmer of Millersville University conducted a study on comprehensive geriatric assessment, which is a multidimensional medical, functional, psychosocial and environmental evaluation of an older person's problems and resources, linked with an overall plan for treatment and follow-up. The study focused on the degree to which comprehensive geriatric assessment is available in rural Pennsylvania and identified strategies for greater implementation.

In 2001, the Center for Rural Pennsylvania sponsored two grant projects on long-term care. Dr. Dennis Shea and Dr. Robert Weech-Maldonado of Penn State University conducted a comprehensive analysis of long-term care services in Pennsylvania. Their research focused on the continuum of long-term care available in Pennsylvania, service demand and supply, costs, and barriers to service delivery.

Dr. Sara A. Grove of Shippensburg University focused her study on home health care agencies and family caregivers. The project examined the sources of payment for both public and private long-term care services, future demand for long-term care services, and barriers to providing long-term care services in rural Pennsylvania.

The results of the three projects are presented in the following pages. Copies of the individual reports are available by contacting the Center for Rural Pennsylvania.

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A Multifocal Study of Geriatric Assessment in Rural Pennsylvania

With advances in health care, more individuals are living longer. The population of those aged 60 years or older continues to grow at a steady rate.

The aging process affects both the physical and cognitive abilities of these individuals and may cause difficulty in performing daily activities necessary for independent living. According to the Pennsylvania Department of Aging (1996), studies over the past 20 years have consistently shown that older people residing in rural areas are more likely to have health problems than their non-rural counterparts. These two factors, a growing elderly population and a rural elderly population with health problems, offer support for exploring the need for comprehensive geriatric assessment (CGA).

Comprehensive geriatric assessment (CGA) is a multidimensional medical, functional, psychosocial and environmental evaluation of an older person's problems and resources, linked with an overall plan for treatment and follow-up. Prior research has shown that CGA provides useful diagnostic and prognostic information that can help identify and possibly reverse some factors that render the elderly dependent on others. The Report of the Society of General Internal Medicine Task Force on Health Assessment (1988) also cites the benefits of a CGA, but states that considerations must be given to methods of paying for such an assessment. Other research identifies the need to determine who performs geriatric assessments and the training that is necessary to efficiently and expertly perform a CGA. Based on these findings, this research study focused on four main topics: identify findings in the literature regarding CGA and its benefits; identify established CGA programs in rural Pennsylvania and their characteristics; assess current health care providers in rural Pennsylvania and their expertise in CGA and the need for training; and assess a randomly selected sample of individuals aged 60 years old or older living in rural Pennsylvania to determine their knowledge of CGA and their willingness to have a CGA done.

Literature Review

To determine an operational definition of CGA and the benefits and barriers of performing CGAs, the researchers conducted a thorough literature search by using the Cumulative Index to Nursing and Allied Health Literature (CINAHL), which provides access to virtually all English-language nursing journals and primary journals from 13 allied health disciplines. MEDLINE, a database that provides authoritative medical information on medicine, nursing, dentistry, veterinary medicine, the health care system, and pre-clinical sciences was also used. Information from the literature supports the assumption that comprehensive and multidimensional geriatric assessments are the same. A comprehensive or multidimensional geriatric assessment is the collection and

analysis of data about the functioning, economic status, environmental situation, and the medical, social, and mental health of an older person. The data from the assessment are used to determine actual or potential problems for which interventions or plans of care can be developed. Several articles suggested that, ideally, an interdisciplinary team should conduct the assessment. The team would consist of a physician, a nurse, and a social worker.

According to the reviewed literature, the perceived benefits of a CGA are as follows:

- Early detection of elderly people at risk of losing their autonomy (Hyebert, 1997).
 - Implementation of an assessment and surveillance program to prevent or delay the onset of functional decline (Hyebert, 1997).
 - Reduced incidence of disabilities and the period of dependence near the end of life (Hebert, Carrier & Bilodeau, 1998).
 - Improved patient survival (Gudmundsson & Carnes, 1996).
 - Improved diagnostic accuracy by physicians (Gudmundsson & Carnes, 1996).
 - Reduced annual medical care costs (Gudmundsson & Carnes, 1996).
 - Reduced nursing home use (Gudmundsson & Carnes, 1996).
 - Reduced use of acute care hospital services (Gudmundsson & Carnes, 1996).
 - Increased use of home and social services (Gudmundsson & Carnes, 1996).
 - More appropriate drug prescribing practices by physicians (Gudmundsson & Carnes, 1996).
 - Improved patient affect, cognition, and functional status (Gudmundsson & Carnes, 1996).
- The overall benefit to the health

care delivery system is the reduction in health care spending by identifying problems and developing a plan of care for elderly individuals that will assist to keep them independent or independent with minimal assistance as long as possible.

The main barriers to conducting a CGA were the time and cost involved. According to the literature, a CGA can take as long as 2.7 hours to complete. Other barriers were the need to have the appropriate assessment instruments available and the knowledge to use them correctly. One study found physicians using assessment instruments incorrectly, thus altering the validity of the assessment findings.

The literature described CGAs, which were not comprehensive, being conducted in the waiting room of physician's offices and senior centers. It also described CGA assessments being done in clinical settings, such as a physician's examination room, hospitals, nursing homes, and in the elderly person's home.

Several funding sources for the provision of CGAs were identified. One project had received a grant from the Robert Wood Johnson and John A. Hartford Foundations. Universities and private philanthropy provided other funding support. The Program of All-inclusive Care for the Elderly

(PACE) was financed through pooled capitated payments from Medicare and Medicaid. The reviewed literature did not identify any funding from private insurance companies.

The literature identified physicians, nurses and social workers as the health care providers who have the expertise to conduct CGAs. These individuals can use various assessment instruments to evaluate an elderly individual.

GA Programs and Their Characteristics

To identify CGA processes and characteristics and to assess expertise in CGA and the need for provider training, the researchers surveyed health care providers. The researchers compiled the names and addresses of health care providers from telephone books, hospital directories, newspapers, health maintenance organization provider lists, and the Pennsylvania Department of State Bureau of Professional and Occupational Affairs.

A list of all the Area Agency on Aging directors from Pennsylvania's 42 rural counties was also compiled.

A survey was mailed to 1,660 health care providers, including 1,072 physicians, 547 nurse practitioners, and 41 agency directors. While 448 surveys were returned, the researchers found 103

TABLE 1: SURVEY PARTICIPANTS

Professional Groups	Sample Size	Percentage of Total
Total	345	
Nurse Practitioner	134	38.8%
Physician	186	53.9%
Physician Assistant	1	0.3%
Registered Nurse	6	1.7%
Social Worker	7	2.0%
Other	11	3.2%

to be ineligible. The response rate was 29 percent.

A breakdown of providers who participated in the study is provided in Table 1 on page 6. The range in age of the total sample was 27 to 75 years. One hundred and fifty-nine, or 46.1 percent, of individuals were male and 186 or 53.9 percent were female. The total number of years in their current position ranged from 0 to 50 years. The range in years of providing care in rural Pennsylvania was 0 to 50 years. The range in years of providing care to elderly individuals was 0 to 60 years. Based on these findings, it was concluded that the sample consisted of individuals who had a depth of experience in caring for rural elderly individuals.

Ninety-nine respondents indicated that health care providers or agencies in their area performed CGAs. While some responses could not be used, others indicated that Offices of Aging and home care agencies were providing CGAs. Eight providers of CGA, other than home care agencies and Offices of Aging, were identified and evaluated by the primary investigator. The providers were located throughout the commonwealth. (See Table 2 below.)

Six of the eight providers of CGA were affiliated with hospitals. Lutheran Affiliated Services and Willow Valley were not affiliated with hospitals and were described as independent corporations. The longest established program, which had been in existence for 14 years, was affiliated with the Altoona Hospital. The majority of programs used a team of health care providers to conduct the assessment. One program used only a physician, and if necessary the physician would consult other health care providers to assist with the assessment. Some of the individuals who were identified as conducting the assessments were psychologists, psychiatrists, social workers, discharge planners, case managers, art therapists, pharmacists, dietitians, nurses, physicians, and nurse practitioners.

The population served by these providers were individuals 60 years of age or older who had physical or mental impairments and were referred by physicians, family members, and staff of local agencies. Only two programs did any formal marketing. All the other programs relied on word of mouth for advertising.

Several of the programs had an

individual who would triage the cases referred to the program. Only those individuals who were appropriate for the CGA program were seen. The other individuals were referred to other appropriate agencies.

Most programs conducted assessments at the agencies, but several programs conducted assessments in the patient's home if necessary. Families were asked to accompany the patient and were involved in the assessment process. The programs were not designed to handle crisis situations. The majority was consulting in nature, and therefore did not provide any direct care. The assessments took an average of three hours to conduct and included a variety of tools. The team members decided what tools to use. Several of the programs were booked with appointments for six weeks.

After the assessment, a conference was usually conducted with a member of the assessment team, the patient and the family. A written report was provided to the family and patient and, if requested, sent to the primary health care provider. The individuals interviewed stated that Medicare paid for the assessments, and in some cases, family members paid.

All of the CGA providers described in this study are excellent examples of how CGA can benefit patients, their families, and the community. Based on the information collected from the telephone interviews, any of these programs could serve as possible models for replication.

TABLE 2: PROVIDERS OF COMPREHENSIVE GERIATRIC ASSESSMENT

Name of Agency	City	County
Altoona Hospital	Altoona	Blair
Bendum Geriatric Center UPMC	Pittsburgh	Allegheny
Hershey Medical Center	Hershey	Dauphin
Knapper Clinic	Danville	Montour
Lutheran Affiliated Services	Cranberry Township	Butler
Pathways	Altoona	Blair
Willow Valley	Willow Street	Lancaster
York Health Center for Aging	York	York

Providers' Expertise and Training Needs

Survey respondents indicated that nearly 50 percent of their caseloads were persons aged 60 years or older. When looking at the data by professional group, the sample size must be considered. The groups of nurse practitioners (133) and physicians (183) have a large enough sample to permit statistical analysis. The other groups, which included a physician's assistant, six registered nurses, seven social workers and 11 others, were too small, so the analyses were based on the data of the total sample and the groups of nurse practitioners and physicians.

Thirty-eight (11 percent) of the health care providers responded that they were not knowledgeable about CGAs. Three hundred and six of the respondents (89 percent) indicated that they were either slightly knowledgeable (24.4 percent), knowledgeable (45.1 percent), or very knowledgeable (19.5 percent) about CGAs. (See Table 3 below.)

The 306 individuals who indicated that they had some knowledge were asked to indicate how they became knowledgeable. Their

responses are in Table 4. The most often cited method for becoming knowledgeable about CGA was "on the job training" (66.3 percent). The physicians learned CGA through "continuing education programs," "on the job training," and "residency programs," while the nurse practitioners learned CGA during their educational process. Seventy-three percent (n = 115) of nurse practitioners learned about CGA while studying for their degree, and 69.6 percent (n = 115) learned by college courses. In comparison, 43.4 percent (n = 166) of the physicians learned about CGA while studying for their degree, and 4.8 percent (n = 166) learned by college courses. The methods of learning that were most popular for the physicians were "continuing education programs" (65 percent) and "on the job training" (56.6 percent). These findings suggest that the physicians learned about CGA after their formal education was completed, but the nurse practitioners learned during their formal education.

Overall, 83 percent received their training in Pennsylvania. About 86 percent of the nurse

practitioners and 80 percent of the physicians were trained in Pennsylvania. From these responses, there is evidence that health care providers in Pennsylvania have access to education about CGA.

All respondents (N = 345) were asked what type of educational programs would be beneficial for health care providers to become knowledgeable about CGA. The survey question listed five methods, including web-based course, CD-ROM course, video course, self-directed module course, and educational workshop, and the response option "other." Educational workshops received the highest percent of responses (82.9 percent), followed by self-directed module course (48.1 percent), web-based course (37.7 percent), video course (34.5 percent), CD-ROM course (33.3 percent) and other (11.9 percent).

Only 25.1 percent of the respondents perform CGAs regularly, 26.7 percent perform them occasionally, and 48.2 percent never or rarely conduct CGAs. More nurse practitioners (55.7 percent) than physicians (47.9 percent) occasionally or regularly performed CGAs.

A cross tabulation of knowledge

TABLE 3: KNOWLEDGE ABOUT COMPREHENSIVE GERIATRIC ASSESSMENT

		Total Sample	Nurse Practitioner	Physician	Physician Assistant	Registered Nurse	Social Worker	Other
Sample Size		344 (missing 1)	134	185 (missing 1)	1	6	7	11
Knowledge about CGA								
	Not Knowledgeable	38 (11.0%)	19 (14.2%)	19 (10.3%)	0	0	0	0
	Slightly Knowledgeable	84 (24.4%)	38 (28.4%)	43 (23.2%)	0	2 (33.3%)	0	1 (9.1%)
	Knowledgeable	155 (45.1%)	55 (41%)	93 (50.3%)	1 (100%)	0	2 (28.6%)	4 (36.4%)
	Very Knowledgeable	67 (19.5%)	22 (16.4%)	30 (16.2%)	0	4 (66.7%)	5 (71.4%)	6 (54.5%)

TABLE 4: METHODS FOR BECOMING KNOWLEDGEABLE ABOUT COMPREHENSIVE GERIATRIC ASSESSMENT

		Total Sample	Nurse Practitioner	Physician	Physician Assistant	Registered Nurse	Social Worker	Other
Sample Size		306	115	166 (missing 1)	1	6	7	11
Became knowledgeable about CGA by:								
	Studying for your degree	159 (52%)	84 (73%)	72 (43.4%)	0	1 (16.7%)	0	2 (18.2%)
	College Courses	96 (31.4%)	80 (69.6%)	8 (4.8%)	0	1 (16.7%)	3 (42.9%)	4 (36.4%)
	Residency Program	83 (27.1%)	5 (4.3%)	78 (47%)	0	0	0	0
	Internship	58 (19%)	23 (20%)	32 (19.3%)	0	0	1 (14.3%)	2 (18.2%)
	Article	129 (42.2%)	56 (48.7%)	65 (39.2%)	1 (100%)	3 (50%)	1 (14.3%)	3 (27.3%)
	Cont. Education Program	176 (57.5%)	56 (48.7%)	108 (65%)	1 (100%)	3 (50%)	3 (42.9%)	5 (45.5%)
	Web-based Course	4 (1.3%)	3 (2.6%)	1 (0.6%)	0	0	0	0
	Video Course	8 (2.6%)	3 (2.6%)	5 (3%)	0	0	0	0
	On Job Training	203 (66.3%)	85 (73.9%)	94 (56.6%)	1 (100%)	6 (100%)	6 (85.7%)	11 (100%)
	Colleagues	148 (48.4%)	68 (59.1%)	66 (39.8%)	0	4 (66.7%)	4 (57.1%)	6 (54.5%)
	Other	54 (17.6%)	20 (17.4%)	28 (16.9%)	0	1 (16.7%)	3 (42.9%)	2 (18.2%)
Column totals equal more than 100% because multiple responses were accepted.								

TABLE 5: FREQUENCY OF PERFORMING COMPREHENSIVE GERIATRIC ASSESSMENT COMPARED TO KNOWLEDGE ABOUT COMPREHENSIVE GERIATRIC ASSESSMENT

	Knowledge about CGA N = 306	Slightly Knowledgeable	Knowledgeable	Very Knowledgeable
Sample Size		84	155	67
How often perform CGA				
	Never	37 (44%)	18 (12%)	7 (10.5%)
	Rarely	36 (43%)	39 (25%)	10 (15%)
	Occasionally	10 (12%)	65 (42%)	7 (10.5%)
	Regularly	1 (1%)	33 (21%)	43 (64%)

TABLE 6: REASONS FOR NOT PERFORMING COMPREHENSIVE GERIATRIC ASSESSMENTS

		Total Sample	Nurse Practitioner	Physician	Physician Assistant	Registered Nurse	Social Worker	Other
Sample Size		148	51	87	1	2	4	3
Reasons for Not performing CGA								
	Lack of Funding	46 (31%)	12 (23.5%)	33 (37.9%)	0	0	1 (25%)	0
	Lack of Time	87 (58.8%)	26 (51%)	61 (70.1%)	0	0	0	0
	Lack of Expertise	70 (47.3%)	26 (51%)	40 (46%)	0	1 (50%)	2 (50%)	1 (33.3%)
	Elderly Not Interested	19 (12.8%)	4 (7.8%)	14 (16.1%)	0	0	1 (25%)	0
	Cost Involved	31 (20.9%)	11 (21.6%)	20 (23%)	0	0	0	0
	CGA Offered by Other Agencies	32 (21.6%)	5 (9.8%)	24 (27.6%)	0	0	2 (50%)	1 (33.3%)
	Other	36 (24.3%)	19 (37.3%)	13 (14.9%)	1 (100%)	1 (50%)	1 (25%)	1 (33.3%)

Column totals equal more than 100% because multiple responses were accepted.

of CGAs and how often CGAs were performed are shown in Table 5 on page 9. Thirteen percent of individuals who were slightly knowledgeable about CGA occasionally or regularly performed the assessment. Sixty-three percent who were knowledgeable about CGA occasionally or regularly performed CGA. Of those who were very knowledgeable about CGA, 74.5 percent occasionally or regularly performed CGA.

Individuals who were knowledgeable about CGA and responded that they rarely or never performed CGA were asked why they did not perform CGAs on a regular basis. (See Table 6 above.)

The main reasons for not performing CGAs on a regular basis were lack of time (58.8 percent) and lack of expertise (47.3 percent). It was surprising to find that 48 percent of the 306 health care providers who were

slightly knowledgeable, knowledgeable, or very knowledgeable about CGA never or rarely performed the assessment. Even though they were knowledgeable about CGA, 47.3 percent indicated that they did not perform CGAs because they lacked expertise. In other words, of the health care providers who are knowledgeable about CGA, almost half do not feel they have the expertise to perform CGA. This would indicate that more training about CGA is needed for health care providers.

The third highest ranked reason for not performing CGAs was “lack of funding” (31 percent). The option selected least often by the total group (12.8 percent) was “elderly not interested.”

According to these findings, time, expertise, and funding are three essential factors that determine if CGAs are performed on a regular basis. The CGA takes

several hours to perform and is best done by a team of health care professionals with expertise. Based on information in the literature and from the eight CGA programs evaluated for this study, a CGA should not be a part of a brief routine office visit but should occur in addition to a routine office visit.

Resident Assessment

Trained interviewers at the Millersville University Center for Opinion Research conducted a telephone survey of 1,001 individuals from the state’s rural counties. The response rate was 72 percent.

The individuals participating in the study were asked questions about their age, gender, socioeconomic class, county of residence, health status, and knowledge of and experience with CGAs. If they did not know what a CGA was, the interviewer explained the term to them using the operational defini-

tion as defined in this study. They were also asked to indicate their willingness to participate in a CGA program based on a five point Likert-type scale.

Respondent characteristics

The sample was predominantly white individuals. Fifty-four percent were married and 32 percent were widowed. Forty-one percent were 65 to 74 years of age, 38 percent were 75 years and older and 21 percent were between 60 and 64 years of age. Forty-three percent of the sample was male and 57 percent was female.

The majority of individuals classified themselves as middle (57 percent) or working (22 percent) class individuals. Almost half of the sample lived in rural counties in central Pennsylvania (47 percent), and almost half indicated they had graduated from high school (48 percent). Ninety-two percent had a family doctor whom they used regularly. The average length of time this individual had been the family doctor was 11.5 years. Sixty-five percent of those interviewed traveled one to 15 miles to see the family doctor.

Self-reported health status

The majority of the individuals were in either excellent (17 percent) or good (53 percent) physical health. To determine their mental health, the interviewers asked the respondents if they were feeling down, depressed, or hopeless. Eighty-three percent were not bothered by these feelings. The majority had not been hospitalized (80 percent) or treated as an outpatient (71 percent). Sixty-four percent went to their doctor at other times than when they were sick.

Awareness of CGA

Eighty-eight percent of the sample never had a CGA. Nearly 31 percent of rural elderly claim to be familiar with the term “geriatric assessment.” Recognition of the term is related to a number of variables according to standard bivariate cross-tabulation. Although levels of awareness differ significantly between many of the independent variables, these relationships are quite weak.

Likelihood of having a CGA performed

Of the elderly Pennsylvanians surveyed, only about 11 percent said they are “very likely” to have a CGA performed if it were available to them. Another 19 percent would be “somewhat likely” to have a CGA performed were it available. Sixty-two percent said they were unlikely to have a comprehensive geriatric assessment done. Eighty-eight percent said they would not be willing to pay for a CGA, and 73 percent would not be willing to pay even if health insurance would pay 80 percent of the expense. If a CGA were done, respondents would prefer to have it done at a physician’s office (85 percent), the nearest hospital (83 percent), their home (59 percent) or a senior citizen center (50 percent).

Conclusion

The findings of this study have been reviewed to determine the need to establish CGA programs in rural Pennsylvania, identify models for CGA programs, and assess the knowledge of health care providers and individuals 60 years of age or

older about CGA and its benefits.

There were conflicting findings about the need to establish more CGA programs in rural Pennsylvania. According to the elderly surveyed, 62 percent indicated they would be unlikely to have a CGA done. This finding does not support the need to develop more CGA programs. In contrast, the information from the eight established CGA programs revealed a need for such programs to be developed.

After reviewing the data collected, the researchers proposed the following reasons to explain why the elderly individuals surveyed were unlikely to have a CGA done. The findings reflected that two out of three individuals interviewed were not familiar with the term “geriatric assessment. It could be concluded that this lack of knowledge might have contributed to their lack of enthusiasm to have a CGA done, even though there was not a statistically significant relationship between these two factors.

Another reason rural elderly in this study were unlikely to get a CGA done could be their health status. The majority was in fair, good, or excellent health. It could be speculated that if they were in poor health, they might be more likely to have a CGA done. The term “geriatric” might also have a negative impression for some elderly. It could be equated with being ill and deter this healthy elderly group from seeing the benefits of a CGA. Health fairs and programs to improve one’s life are usually well attended by the elderly. If these events were called geriatric fairs and programs to

improve one's geriatric life, the terminology might discourage elderly individuals from attending such events. A more appropriate and positive term for CGA would be "comprehensive health assessment."

Seven of the eight providers of CGA identified in this study are located in the southern part of the state. The other provider is located in the north-central part of the state. Because of the small number of CGA programs identified and their location, many elderly do not have access to CGA programs. In order for all rural elderly to have access, more CGA programs need to be provided.

The review of literature found the benefits of CGA to be greater than the disadvantages. CGA was viewed as being beneficial in decreasing health care spending by identifying any mental or physical problems elderly individuals might be having, and developing a plan of care that would assist in keeping elderly individuals independent or independent with minimal assistance for as long as possible. The evaluation of the eight providers of CGA concurred with the literature and revealed that the individuals they served had physical or mental impairments, and this was one of the main reasons they had been referred to the CGA program.

When asked about the identified outcomes of a CGA program, three of the eight providers of CGA stated it assists with resource planning, education of elderly regarding their health and medications, family relief, filling the gap between living independently and institutionalization, and improving health of the elderly. These responses were similar to the advantages of CGA identified in the literature review. None of the

CGA programs, however, could identify a formal way of how they evaluate outcomes.

Several articles identified CGA as being done by only a physician, but the majority of the articles support the recommendation of using an interdisciplinary team to conduct the CGA. The literature identified physicians, nurses and social workers as the health care providers who have the expertise to conduct CGAs. The eight CGA programs evaluated for this study identified a variety of individuals who conducted CGAs depending on the patient's needs, but most programs used an interdisciplinary team. This information correlates with the findings in the literature. Based on the findings from the mail survey, almost 50 percent of the health care providers indicated that they lacked expertise in conducting CGAs, and that this was one of the reasons they did not perform CGAs. These findings would support the recommendation that for CGAs to be done correctly, it needs to be done by an interdisciplinary team of specially trained individuals.

The literature identified many places for the CGA to be done. The CGA providers interviewed stated that their assessments were conducted at the agency, which was located in or near a hospital. Several providers would do assessments at the patient's home if it were necessary. These findings correlate with the findings of the telephone survey. The majority of the elderly individuals surveyed indicated they would prefer to have a CGA done in the physician's office or nearest hospital.

The findings of this study also identified time as an important factor when considering CGAs. The literature lists various amounts

of time for a CGA depending on how in-depth it is but indicates that a CGA could take approximately three hours. This time frame was supported by the information collected from the CGA providers.

The literature also lists time as a deterrent to performing CGAs. When asked to identify reasons for not performing CGAs, approximately 59 percent of health care providers cited the lack of time. It may be concluded that CGAs done in a short period of time may not be complete, and therefore not beneficial. But if done in a lengthy amount of time, they may not be affordable or practical. The CGA needs to be done in a long enough period of time to collect sufficient information, but not so long that it becomes expensive and impractical. It should not be expected that a CGA be done during a regular office visit.

Expertise must also be considered when evaluating the time needed to do a CGA. If health care providers are experts in performing the assessment, they will probably perform a CGA in less time than a novice. It would therefore be cost effective to have health care providers who have expertise in this area conduct the CGAs. It might also be speculated that only 25 percent of the health care providers in this study conduct CGAs on a regular basis because they view it as being time consuming, and they lack expertise. Their lack of expertise may also contribute to the amount of time it takes to perform a CGA.

Funding is another important aspect of CGA programs. The literature identifies several sources for funding, the majority of which was provided by one-time sources. The CGA providers interviewed

stated that Medicare and family members of the elderly paid for the CGAs. They also stated that additional funding was needed to expand their current programs. One in three health care providers (31 percent) selected lack of funding as a reason for not performing CGA. When the rural elderly were asked if they would pay for a CGA, eight in 10 said they would not. When given the scenario of health insurance paying for 80 percent of the cost, seven in 10 elderly still indicated that they would not pay for a CGA. Based on these findings, it would be beneficial to conduct a cost benefit analysis and also explore options other than one-time sources and direct pay to cover the costs of a CGA.

According to the findings, CGA programs are only available in some areas of rural Pennsylvania. The programs that do exist demonstrate their success by being in demand without formally marketing their services. Following are some reasons for their success:

- Use an interdisciplinary team of experts.
- Conduct the CGA at the agency instead of the primary care provider's office.
- Use a variety of assessment instruments as appropriate for the elderly individual.
- Provide consultation and not service.
- Meet with elderly individual and the family.
- Develop a plan of care that incorporates services that are provided in the elderly individual's community.
- Collaborate with the primary health care provider if necessary or requested by the elderly individual.

For new CGA programs to develop in areas that do not have this service, some agency or individual must identify the need. It would be best to work within an already established organization, such as a hospital, college or university, or any of the various community agencies or groups. A task force may help develop, plan, and implement a needs assessment study, and funding would have to be secured for the study. The needs assessment should be of the elderly population and the agencies, health care providers, and others who would be referring individuals to have a CGA done. Based on the conclusions of this study, the needs assessment might be more accurate if the CGA was called a comprehensive health assessment. If the findings support the need for a CGA program, the next step would be to determine if multidisciplinary professional resources exist, so a team of experts could be identified.

Recommendations Clearinghouse for CGA programs

One of the focuses of this study was to identify established CGA programs in rural Pennsylvania and their characteristics. No central listing of CGA programs existed, so the researchers compiled a list with the help of the survey respondents. While this question did generate results, it would be advantageous if there were a statewide clearinghouse that listed CGA programs and relevant information about the programs. This information would be readily available and help in determining program, education, and funding needs. It would also promote information sharing and networking

among providers, the identification of additional research needs, and the systematic identification of program outcomes. Currently, the CGA programs are not under the auspices of any division of local or state government that would facilitate the establishment of such a clearinghouse. The state department that would be most appropriate to provide this oversight would be either the Department of Aging or Health.

Collection of health care provider and agency information

A very labor intensive process was used to compile a list of health care providers, who cared for the elderly population from 42 rural counties of Pennsylvania, since there was not one source for the names and addresses of rural health care providers. The Pennsylvania Department of State's Bureau of Professional and Occupational Affairs does supply lists of advanced practice nurses, registered nurses, physicians, and social workers, for a fee. This information may be sorted by counties, zip codes and license name, but it could not be determined if these professionals cared for the elderly population or if they were active or retired. Some mail surveys from this research were returned because the health care providers did not care for the elderly or were retired. A more accurate way of obtaining a list of active health care providers from the 42 rural counties of Pennsylvania who care for the elderly population is needed. This information would expedite future research studies and needs assessments. For the health care professionals, the clinical specialty could

easily be obtained by having them indicate their area of clinical specialty on their license application form. This information could also be obtained on license renewal forms by including a question on clinical specialty areas. Included with this question would be a list of clinical specialty areas and the “other” option. This is how this categorization is currently done on membership forms for professional organizations.

Acquiring a list of agencies that serve the elderly population living in rural Pennsylvania is more complex since there is no central office or department that collects this information. The local Area Agency on Aging might best acquire a list of such agencies. This list would need to be reviewed and updated annually or biennially.

Statewide coordination of CGA programs

Based on the findings of this study, CGA programs fall outside the oversight of local, county and state government. Program planning and implementation are not the responsibility of any specific individual or agency. It was therefore surprising to find the eight CGA programs identified in this study to be homogeneous when looking at who performed the CGA, where the assessment was done, and what the assessment involved.

In order for these programs to be recognized and to benefit from various funding sources, it would be best if a plan for appropriate oversight were developed. The two state departments that would be most likely to provide this

oversight are the Departments of Health and Aging.

In order for all elderly individuals, their families, and rural communities in Pennsylvania to benefit from CGA programs, there should be a lead agency to oversee these programs. This lead agency would provide assistance in the areas of program development, research, communication, outcome assessment, funding, education of consumers and professionals, advertising, and resource allocation. This would necessitate the identification of an overall coordinator.

The coordinator would be responsible for the leadership needed to stimulate the development of networks or partnerships in local rural communities, which will ensure the availability of CGA programs to all, regardless of ability to pay or geographical location. This individual would be responsible for encouraging the development of CGA programs in underserved areas of the state.

Outcome assessment

Enough cannot be said about determining the outcomes of new and existing programs. The eight CGA programs included in this study were excellent service providers, but could not readily answer how their program’s outcomes were measured. In order to prove a program’s worth, it is necessary to formally measure outcomes. This will assist in the planning and implementation of

new programs and expansion of current programs related to CGA. This information is also valuable when securing funding for additional staff and other resources.

Education

This study also explored how health care providers learned about CGA and which methods would be beneficial in educating others about CGA. The findings identified a need for the medical school curricula to be evaluated for theory that addresses CGA. According to the physicians who responded to the survey, only about half learned about CGA while studying for their degree. The Pennsylvania State Board of Medicine may want to share this finding with schools of medicine, so curriculums can be reviewed for the inclusion of CGA and associated information.

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Long-Term Care Services in Pennsylvania

The last 15 years have been tumultuous for long-term care. Market and policy changes have led to fundamental shifts in the industry with important impacts on patients and providers. The 1990s were a period of intense change in long-term care. Rapid growth in home health, assisted living and skilled nursing facility expenditures, continued demographic aging, significant changes in funding methods, and startling new research on mortality and morbidity combined to raise significant questions about the future of long-term care.

Today, the industry offers a wider range of care options than ever before, raising additional questions about consumers' abilities to access appropriate quality care at an affordable cost. This changing landscape challenges state governments, who remain the chief driver of long-term care policy.

To understand the implication of these changes for Pennsylvania, and especially for critical segments of the state such as rural consumers and providers of long-term care, the Center for Rural Pennsylvania challenged researchers to study long-term care services in the state. To summarize the implications of the changes, the researchers surveyed nursing homes, home health agencies, and assisted living facilities to compile information on costs, services available, service barriers, and other key information.

The researchers then analyzed the survey data to develop a descriptive profile of county long-term care providers, identify barriers to providing long-term care services, and assess providers' strategic responses to the changing long-term care environment. They also linked these data to other state and federal data sources to identify areas where services are not matched to needs. Finally, the researchers conducted an analysis of the long-term care literature to understand other issues relevant for consumers and policy-makers.

Data Collection and Analysis

To conduct the study, the researchers mailed surveys to the administrators of all 2,790 licensed, long-term care organizations in Pennsylvania. In total, 1,168 responses were received, for a response rate of 42 percent.

To analyze the data, the researchers compared the survey responses to questions on barriers to long-term care and strategic behavior across the different provider types. They also compared the rural/urban dimension to identify differences in problems and (attempted) solutions across provider types, locations, and different provider types within locations. The researchers also merged data collected from the survey with other data sources to describe and analyze long-term care at the county level. The chief purpose of the rural/urban data analysis was to understand some of those factors that generate differences in demand and supply in urban and rural areas and whether the data on demand and supply indicate a "gap" between the current situation and the needs of the residents in the county. The underlying goal of long-term care policy should be to have market and policy work so that demand and supply meet the long-term care needs of older residents.

The first step in the analysis was an examination of the differences in urban and rural areas in factors that influence the current state of demand and supply. Rural areas are different than urban areas. They have lower incomes, different health needs, and different labor markets. Understanding which of these differences might be responsible for differences in long-term care supply and demand is the goal of this stage of the data analysis.

There is another issue to address, however. Previous studies of long-term care, especially nursing home care, suggest that public policies have often generated excess demand in long-term care markets, a gap between the needs and demands of residents and the existing supply. Thus, it was important to identify gaps between demand and supply in urban and rural areas. To get at this issue, the final part of the data analysis uses econometric modeling to create a county-level estimate of services demanded and to compare that to supply to identify areas where demand and supply were not in concert.

Results

Long-term care services include a wide range of services that address the health, personal care, and social needs of individuals who lack some capacity for self care (Kane & Kane, 1982). Two fundamental aspects highlight societal concerns about the present state and future situation of long-term care. The first aspect is the often-cited aging of the population, which many expect to place increased demands on Pennsylvanians and Americans for support for long-term care.

The second critical aspect is the fragmentation and segmentation among the sources expected to supply services to meet the expected growing need. Long-term care is provided in a range of settings depending on the availability of informal caregiving, the needs and preferences of the individual, and reimbursement policy, among other factors (Stone, 2000). Informal caregiving by family and friends constitutes the primary form.

Formal or paid providers include nursing homes, home health agencies, and assisted living facilities. There are significant differences in terms of licensing, regulation, and financing among formal providers. The wide array of providers, both formal and informal, and the different ways they are treated by government agencies and third-party payers contribute to consumer confusion and dissatisfaction and uncertainty about access, cost, and the quality of the current and future long-term care system.

Demand for long-term care services

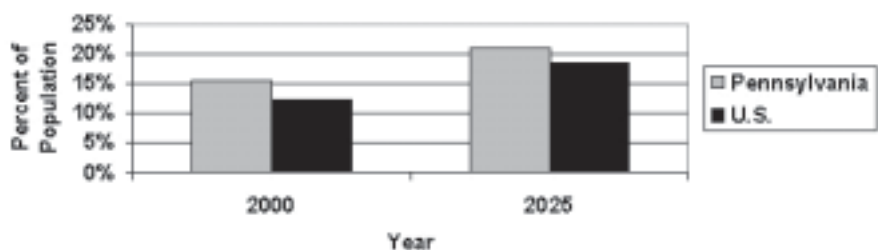
Demand for long-term care services depends on a variety of factors, including the age of the population, population health status, wealth and income, and insurance coverage.

Age

The need for long-term care increases with age. Among those aged 85 and over, 21 percent were in nursing homes in 1995 and another 49 percent had activities of daily living (ADLs) limitations (Stone, 2000). It has been projected that the number of elderly will double by year 2020, and the number of persons over 85 will quadruple (Pratt, 1999b). These demographic factors may drive increased demand for long-term care in the U.S. and Pennsylvania.

Compared to other states, Pennsylvania is ahead of the curve in terms of its age demographics. Census Bureau data indicate that, in 2000, Pennsylvania's population of those age 65 and older constituted not quite 16 percent of the population, compared to the national 12.4 percent (U.S. Census, 2002). By the year 2025, Pennsylvania's 65 and older population is expected to increase to more than 20 percent of the total population (U.S. Census, 1997). By 2025, 18.5 percent of America's population is projected to be age 65 or older (U.S. Census, 2000). While Pennsylvania's current higher level of older persons and slower growth rate mean that it may not face as swift a change in demographics, the state will still continue to have a

Percent of Population Age 65 and Older in 2000 and 2025 for Pennsylvania and the U.S.



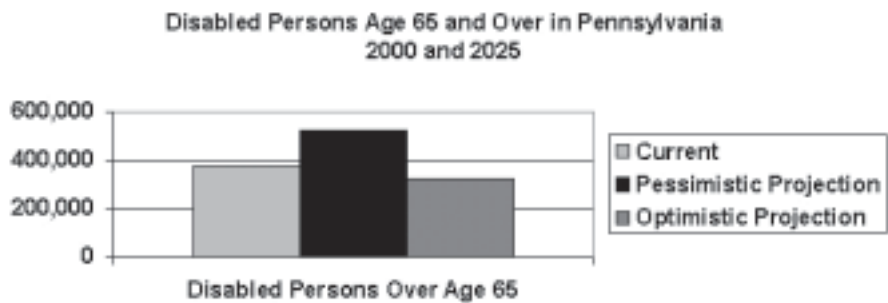
higher than average proportion of its citizenry age 65 and over in need of long-term care services.

Age, however, is only one of several factors that will impact current and future demand for services. Several additional factors are important for determining the overall level of long-term care.

Elderly population health

One of the most critical and controversial factors expected to influence future long-term care demand is the level of morbidity or health in the elderly population (Crimmins et al., 1997; GAO 1994; Rice, 1996; Manton, 1997). Simply stated, if increased length of life is not matched by improvements in the health and reductions in disability among the older population, then society will be faced with a sizable cohort of older, disabled persons in need of long-term care. On the other hand, if the health of the elderly as an age group improves and morbidity and disability are reduced as longevity is increased, then cohorts of older persons in the future will be healthier than current elderly. If the size of the older population doubles, but only half as many are in poor health and need care, then demand for services will almost certainly not increase as much as the growth in population.

This potential improvement in health and reduction in disability, known as the “compression of morbidity,” since it implies that more of the poor health associated with aging will be compressed into the last few years of life, is important for understanding future long-term care demand. Studies that assume little or no “compression of morbidity” as the baby-boomers age typically project that approximately double the number

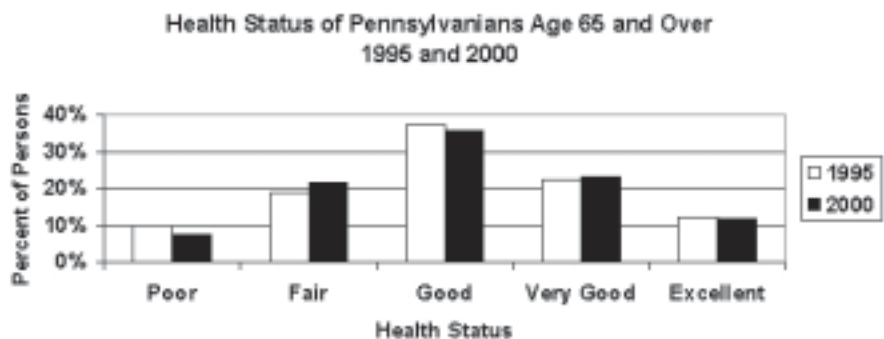


of current disabled elderly will be present in 2025 to 2040, compared to the present period, representing about one-quarter of the total elderly or 20 to 30 million persons (Rice, 1996; Kunkel and Appelbaum, 1992; Manton 1997).

Earlier studies of morbidity trends based on data mostly from the 1980s seemed to suggest that these pessimistic projections of high levels of demand were likely, since they showed little morbidity compression. More recent studies, especially those of Manton (1997, 2000), suggest that morbidity compression began to gather momentum in the late 1980s and 1990s and found that disability prevalence dropped dramatically, so that there were even fewer disabled elderly individuals in 1999 than in 1982. For example, Manton’s most recent research indicates that males, currently age 65, would spend fewer than two years disabled in the community, while prior estimates suggested

that they would spend seven years disabled in the community. The decrease would reflect time spent active (non-disabled) in the community rather than an increase in institutionalization. These studies suggest that even if these morbidity improvements ended now, the number of disabled elderly in 2030 would be close to 15 million. If they continued at the same rate as they occurred in the 1990s, the number of disabled elderly would be under 10 million.

What would this mean for Pennsylvania? Current national estimates of the prevalence of disability and the size of the 65 and older population of the state suggest that the state has approximately 375,000 persons over age 65 in need of long-term care. Assuming that the state’s trends in disability prevalence continue to drop at the rate that the national prevalence rates did in the Manton studies, Pennsylvania in 2025-2030 will have approximately 325,000



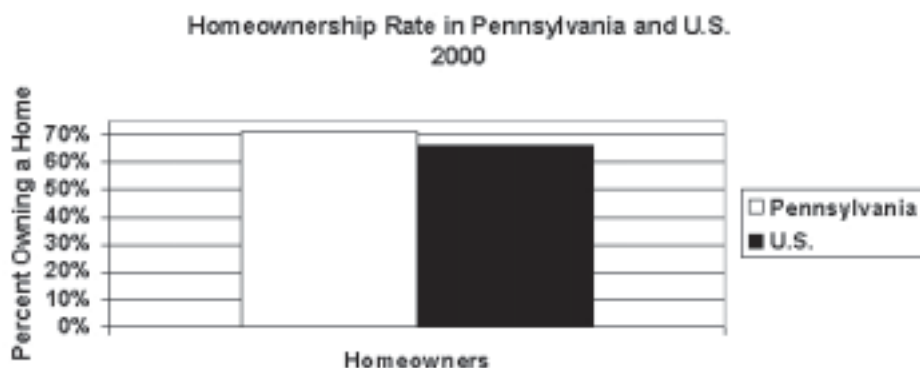
disabled persons age 65 and over.

While using national data to determine the health and disability of the elderly may not be a reliable guide for Pennsylvania, the Centers for Disease Control (CDC) Behavioral Risk Factor Surveillance System indicates that the proportion of older Pennsylvanians who report themselves to be in fair or poor health is similar to the national estimate in 2000 (29 percent versus 28.2 percent) and that Pennsylvania's trend in health status of the elderly shows no substantial deviation from the national trend (U.S. Department of Health and Human Services, 2002).

It is far too early to tell whether or not morbidity will continue the downward trend established in recent years. Even assuming it does, Pennsylvania will face, at best, only a moderately decreased need for long-term care. The research does serve to remind policy-makers, however, that long-term care needs arise from the combination of age and morbidity and that trends in both should be monitored carefully to avoid both over-reactions and under-reactions to potential long-term care needs.

Economic well-being of the elderly

The economic situation of the elderly is another factor that can play a substantial role in impacting the future of long-term care. Current studies and future projections suggest that older persons are, on average, in relatively strong financial shape and that the economic status of the elderly will continue to improve (Hurd, 1989; Crystal and Shea, 1990; Manches-



ter, 1997). For example, median income among households headed by a person age 65 and older rose 18.3 percent from 1983 to 1998, while median net worth rose 42.5 percent for the same age group. Even among persons age 77 and over, income and wealth growth in the 1990s has been relatively strong, with median income growing almost 40 percent and median net worth growing by more than 67 percent (Wolff, 2002).

One of the most important elements of wealth for understanding the future demand and supply of long-term care is housing wealth. At the most basic level, housing wealth represents almost half of the total wealth of persons nearing retirement (Smith, 2002). Expanding ways to allow individuals to tap that wealth as a source of paying for long-term care would represent a substantial increase in private sector sources of funds for long-term care costs.

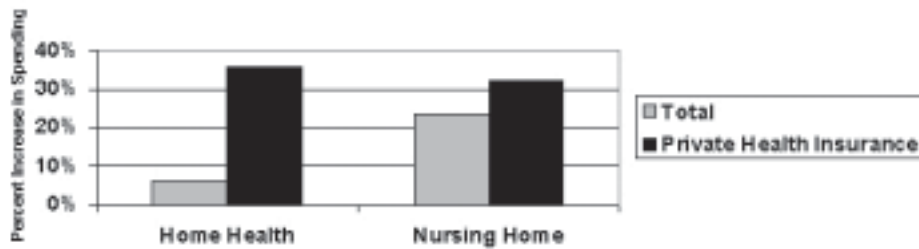
Also, as Stone (2001) notes, housing is one of the essential elements of long-term care. Long-term care requires that adequate housing be available for the needs of older persons in declining health, either in the community or in institutional settings. And most Americans prefer to receive long-term care in their home (Me-

chanic, 1987). High levels of home ownership in an area suggest that demand for long-term care will be more heavily weighted towards home- and community-based services, rather than institutional settings.

Therefore, home ownership is a critical element of wealth for long-term care, since it represents both a major component of total wealth (and potential funding for long-term care) among older persons, and it tends to influence the types of long-term care services (home- and community-based versus institutional) desired by older persons. In recent years, home ownership in the U.S. has reversed an earlier decline in the 1990s and reached historically high levels with 68 percent of Americans now owning a home (Strickland, 2002). Pennsylvania exceeds the national average with more than 74 percent of Pennsylvanians owning their own home (U.S. Bureau of the Census, 2002).

Despite these positive trends, it is important to note that in the same 1983 to 1998 period, income and wealth growth among those approaching retirement age (age 47 to 64) was more modest. Median income for households headed by a person in this age group grew just 14 percent, and median net worth grew just over

Increases in Spending on Long-Term Care in Total and from Private Health Insurance 1995-2000



10 percent. Surprisingly, median net worth actually declined by almost 10 percent among this age group in the 1990s. Slower income and wealth growth among this group may portend rougher economic times for older persons in the future (Wolff, 2002).

In addition to the slower growth in income and wealth, inequality in income and wealth was growing among persons age 47 to 64. While conventional wisdom once held that elderly persons were almost all poor, it is now recognized that there is substantial diversity and inequality in the economic circumstances of the elderly (Crystal 1982, Crystal and Shea 1990, Smith 1997). This inequality calls for creativity and innovation in public policy since one-size-fits-all policies cannot address the problems. Even as the average income and wealth of the elderly as a class grows, there are likely to be significant pockets of need.

Both the slower growth in wealth and its greater inequality may be exacerbated, in part, by changes in the pension system. Pensions, in addition to savings, are a critical leg of the three-legged stool (pensions, savings, and Social Security) of economic resources of the elderly. The pension system in the 1980s and 1990s has shifted

dramatically from defined benefit (DB) to defined contribution (DC) plans. Among all persons 47 and over, nearly 22 percent fewer held a DB plan in 1998 compared to 1983. The percentage of persons with a DC pension plan rose by almost 40 points. Overall, however, the percentage of persons with any pension plan rose less than 1 percent during this period (Wolff, forthcoming). In addition to unanswered questions about the long-run returns from DC plans and their effects on inequality compared to DB plans, DC pension plans hold risks for individuals in ways that DB plans do not.

It is certainly not surprising to find that there is a clear and strong association between economic well-being and health among the elderly. Smith (1999) provides a comprehensive assessment of the relationship between health and economic status. Prior work clearly shows that mid-life health events have a significant impact on the ability of older persons to accumulate savings for retirement (Smith, 1998). Thus, policies that examine demand and financing of long-term care have to begin by considering events that inhibit personal saving for long-term care prior to age 65. These might include pension, insurance, and

work policy, especially for those who develop disabilities prior to age 65.

Long-term care insurance

The failure of long-term care insurance to grow rapidly and become an important aid to financing long-term care remains an issue for long-term care policy. While studies from the Health Insurance Association of America show that the

number of policies sold is growing at a rate of 20 percent per year, several recent studies have called for new policies to advance the long-term care insurance market (Stone, 2001; Pauly 2001; Murtaugh, 2001). Still, from 1995 to 2000, private health insurance payments for home health care rose by 36 percent while total home health spending rose just 6 percent; private health insurance payments for nursing home care rose 32 percent, exceeding the rate of overall nursing home spending growth. Thus, private health insurance payments now represent 12 percent of total spending for home health and nursing home care (Center for Medicare and Medicaid Services, 2002).

State and federal policy makers continue to seek ways to stimulate the market, although the problems are many. Perhaps the most significant and stubborn problem for both insurance and long-term care, in general, is the lack of knowledge on the part of the population. As Mechanic (1987) noted, nearly 80 percent of the population at that time believed that long-term care was already paid for through Medicare. Recent studies (Gough, 1999) indicate similar beliefs persist. Policies that try to address the financing of long-term care without first

removing this lack of understanding of the issue will face an uphill climb.

Excess demand and long-term care

The potential growth in demand for long-term care from demographics, income growth, and insurance growth could exacerbate a situation of excess demand that has long plagued the long-term care industry. Many previous studies (Nyman, 1985; Reschovsky, 1996; Nyman, 1994; Nyman, 1988) indicated that the combination of demand stimulated by the presence of Medicaid coverage and supply restricted by Certificate of Need (CON) programs generated a situation in which long-term care, or more specifically, nursing home care, was in permanent excess demand, with the number of persons seeking care far exceeding the available supply.

Such a condition may have many pernicious effects, especially in the presence of other market and policy conditions. Excess demand can lead to restricted access for low revenue (e.g., Medicaid) and high cost (e.g. heavy care need) individuals. Excess demand also relaxes the market pressure on facilities to provide high quality care and to restrain price increases.

Other events and policies, however, may already be addressing these issues. Prospective, case-mix adjusted payments systems that have now become widespread in long-term care alter the incentives to restrict access and seem to have improved access for heavy-care patients (Davis et al. 1998, Grabowski, 2001), although the cost savings

sometimes attributed to these payment methods may be overstated because they do not adjust for impacts on quality (Chen and Shea, 2002). Prior research even suggests that Pennsylvania was not one of the states where excess demand was a significant problem (Swan and Harrington, 1986). Increasing supply and funding for home health, assisted living and other substitutes for nursing home care appear to be providing competition to nursing homes and reducing excess demand (Bishop, 1999; Grabowski, 2001).

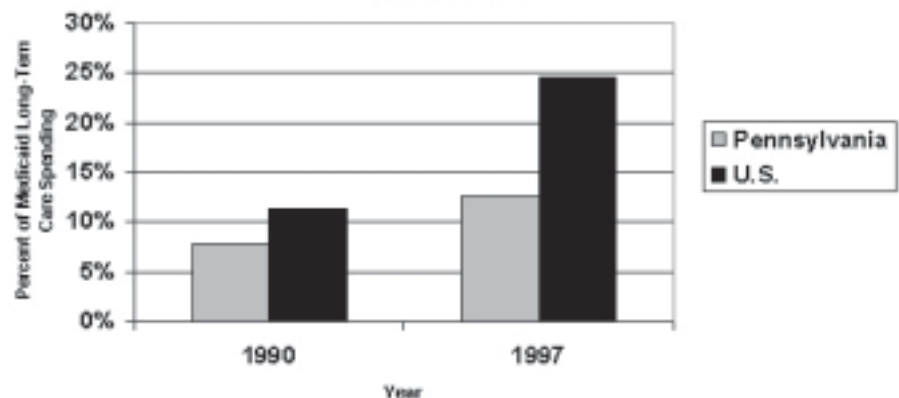
Home- and community-based services

One critical policy issue regarding the demand and financing of long-term care is the extent to which policy should try to stimulate community-based alternatives to institutional based long-term care. While Pennsylvania provides some alternatives through programs such as OPTIONS and the 60+ waiver program, many other states have expanded services more rapidly. In 1990, Pennsylvania spent 7.8 percent of its Medicaid long-term care funds on community-based services, while nationally, the average state spent 11.3 percent of

Medicaid funds in this way. By 1997, Pennsylvania was still spending just 12.5 percent of its Medicaid long-term care budget on community-based care, while nationally, the average state was spending almost 25 percent of its Medicaid long-term care funds this way (Miller et. al., 1999).

An ongoing concern with expanding public or private coverage of community-based care is the perception that costs will expand rapidly and cost savings from institutionalizations that are prevented, delayed or shortened will be small. In fact, several studies have aggressively tried to identify potential cost savings from community-based care and found little evidence it exists (Kemper, 1987 provides some overviews). Ongoing research in this area has begun to identify particular aspects of delivering community-based care with the greatest potential to result in cost savings. For example, Greene et al. (1993) finds that registered nurse services deter nursing home entry by those in wheelchairs; home health aide services reduce institutionalization of those with cognitive impairments; and personal care aides and housekeeping services reduce the

Spending on Community Based Long-Term Care in Pennsylvania and the U.S. 1990 and 1997



admission risk of those with functional disabilities. Reschovsky (1998) looks at targeting nursing home subsidies and suggests that informal caregivers are not likely to abandon their roles and institutionalize family members because of long-term care subsidies. He argues that demand for nursing home care is insensitive to price because of consumer resistance to institutional care. So, even large subsidies, he claims, will only increase the use of nursing homes by a small amount. Furthermore, nursing home care is inferior with respect to income. In other words, as consumer incomes increase, demand for nursing home care declines, because high-income consumers prefer less restrictive settings. Thus, subsidies for nursing home care that target those with few other alternatives (e.g., those with no nearby informal helpers and high levels of disability) are the most efficient use of funds. These and other studies indicate that we are beginning to understand how to effectively target services and funds to needs in ways that minimize costs for taxpayers.

Supply of long-term care services

Long-term care organizations are facing rapid environmental changes as they try to supply care to older persons (Pratt, 1999c). Major changes include the implementation of the Balanced Budget Act in 1997, the growth of managed care, the increased number of nursing home alternatives, the formation of integrated delivery systems, and the shortage of paraprofessionals.

The Balanced Budget Act of 1997 (BBA) established a pro-

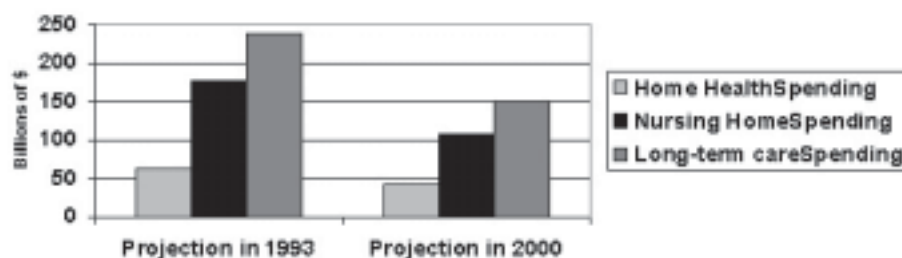
spective payment system (PPS) for Medicare reimbursement of nursing homes (skilled nursing facilities) effective July 1, 1998; for home health agencies in 1999; and for acute rehabilitation in 2000 (Gill & Rovinsky, 1998). While all of these payment systems have been implemented slowly, they are nonetheless having an impact on long-term care providers. While nursing home and home health costs increased about 15 to 20 percent per year in the early 1990s, in more recent years cost increases have dramatically slowed or even reversed. In 1993, the federal government was projecting that home health care costs in 2003 would exceed \$62 billion and that nursing home costs would exceed \$176 billion. The current projection for home health

mentation, enhanced the cost control features of PPS in long-term care settings.

BBA affects the home health industry particularly, since approximately 66 percent of its revenues are from Medicare (Ondek & Gingerich, 1999). Rural home health agencies are expected to be more vulnerable to BBA than urban agencies since they depend more on Medicare revenues and provide disproportionately more skilled nursing visits (Nyman & Dowd, 1991).

Nursing homes also are being affected by BBA. Medicare resources to nursing homes are being reduced at the same time demand from private residents is declining (Bishop, 1999). In the last year, several nursing home chains filed for Chapter 11 bankruptcy

Projected Long-term Care Spending in 2003
1993 Estimate and 2000 Estimate



spending in 2003 has been reduced to \$43 billion, while the nursing home cost projection has been reduced to \$107 billion, a collective reduction of almost 30 percent (Beck and Chumbler, 1997; Heffler et al., 2001).

The implementation of PPS in each setting provides strong financial incentives to minimize the cost and length of stay for each care setting. Certain features, including basing payments on data from a few years prior to imple-

protection (Reuters Health, 2000). However, analysis by the Medicare Payment Advisory Commission (Medpac) indicates that there has only been a 1 percent decline in skilled nursing facilities (SNFs) after BBA (there has been a much larger decline in hospital based SNFs) (Medpac, 2002). The BBA has had significant impacts on rural nursing homes, in particular. Research prior to BBA shows mixed evidence on the adequacy of Medicare payments. Some studies indicate that most SNFs

are underpaid when they receive their average cost for care provided to Medicare beneficiaries, and the differential is greater for rural SNFs (Bishop & Dor, 1994). Other research indicates Medicare and Medicaid paid the marginal costs of patient care (Nyman, 1994). Since PPS payments are based on 1996 costs, it is likely that urban-rural differentials persist.

In an effort to diversify their payer mix, many long-term care providers have entered into managed care contracts. Managed care is growing increasingly important as a source of referrals for long-term care organizations (Pratt, 1999a). It is a major catalyst for growth in subacute care in many markets, with nursing homes emerging as a major competitor (Taylor, 1994). This trend will continue if the presence of managed care in the Medicare market resumes its increase. In 1998, six million Medicare beneficiaries (16 percent of beneficiaries) were enrolled in Medicare HMOs (HCFA, 1998).

Urban long-term care facilities are likely to have more relationships with managed care organizations than rural facilities (Guihan, Erdman, Munroe, & Hughes, 1999). Many rural areas lack experience with managed care. The small populations of rural areas make risk contracts difficult to implement (Beaulieu, 2000). Rural facilities are often disadvantaged in terms of the geographic proximity to other providers. In addition, rural areas have a smaller pool of providers with which to become involved.

The success of managed care depends, in part, on how well providers integrate service delivery across providers and settings (Guihan, Erdman, Munroe, &

Hughes, 1999). The implementation of PPS and growth of managed care provide financial incentives to minimize the cost and length of stay for each care setting. These changes require coordination of care across different delivery settings so that it is provided in the least costly, most appropriate setting available, increasing the need for integration among health care providers (Gill & Rovinsky, 1998). This has resulted in the development of integrated delivery systems and other interorganizational relationships to coordinate services across the continuum of care, from primary to long-term care.

Interorganizational relationships (IORs) have been defined as “the relatively enduring transactions, flows, and linkages that occur among or between an organization and one or more organizations in its environment” (Oliver, 1990: 241). Given the rapid change and increased complexity in the health care environment, organizations are increasingly forming linkages or relationships with other organizations (Shortell and Kaluzny, 1997). Developing and maintaining IORs has become an important component of the strategy of health care organizations with several potential benefits: improved financial performance, access to resources and new markets, innovation, and organizational learning (Rakish, Longest, and Darr, 1992; Shortell and Kaluzny, 1997). IORs represent a continuum from “tightly coupled” arrangements, such as ownership, to “loosely coupled” arrangements, such as affiliations. These different structural configurations represent varying degrees of control, autonomy and resource commitment (Zajac and D’Aunno, 1997).

IORs may be classified as either lateral or integrative (Zuckerman, Kaluzny, and Ricketts, 1995). In lateral IORs (sometimes also referred to as horizontal integration), linkages form horizontally between similar types of organizations in order to obtain economies of scale or monopoly power. An example of a lateral IOR is a hospital alliance, such as Premier Health or the Voluntary Hospitals of America (VHA). In integrative IORs (sometimes called vertical integration), linkages are formed vertically between buyers, suppliers, and customers to achieve market and strategic advantage. For example, an integrated postacute care system represents linkages across different types of postacute care providers: subacute, rehabilitation, skilled nursing care, and home health care (Currie, 1996).

The current long-term care system is highly fragmented (Currie, 1996). Chronic disease management requires the coordination of services spanning different delivery settings, levels of care, and types of providers. IORs of long-term care providers contribute to increased postacute care integration and may facilitate the formation of care continuums in the long-term care sector (Evashwick, 1999).

There is a dearth of empirical research examining IORs between postacute care providers. In a study of rural nursing homes in Pennsylvania, only 18 percent maintained agreements with home health agencies to guarantee services to residents discharged to their homes (Brannon, Dansky, Kassab, & Gamm, 1996). The most prevalent type of interorganizational linkage was that involving the transfer of patients

between nursing homes and hospitals. Although only 12 percent of rural nursing facilities in Pennsylvania were actually part of a local hospital system, many had formal referral agreements to manage the flow of patients between organizations. Rural administrators may be less willing to coordinate services if they perceive less competition than their urban counterparts. However, there is some evidence that occupancy rates are declining in rural nursing homes, and service integration may be essential to financial viability (Redford, 1997). The number of unoccupied nursing home beds in the community is positively associated with decreased participation in interorganizational networks (Guihan, Manheim, & Hughes, 1995).

As the long-term care environment becomes more turbulent, nursing homes are likely to diversify services to improve performance. For example, the existence of independent living and personal care homes on a nursing home campus provides opportunities for a continuum of care at one location (Aaronson, Zinn, & Rosko, 1995). This is an attractive option for rural areas, as building assisted living facilities in the same location as an existing nursing facility allows for shared use of laundry and food facilities and staff (Egger, 2000).

As the continuum of care evolves, nursing homes are facing ever-increasing competition from home health agencies, assisted living facilities, and hospitals. Nursing homes are losing their prominence in long-term care. Nursing home use by the elderly declined from 1987 to 1995, while occupancy rates for nursing homes fell from 92 percent to 87 percent

in this period (Bishop, 1999; Stone, 2000). Competition among long-term care providers is even keener in states that promote community-based providers as an alternative to nursing home care. Pennsylvania offers a comprehensive package of aging services and programs funded with lottery revenues. One of these programs, OPTIONS (Community Based Long Term Care), provides a range of services to help senior citizens and disabled individuals remain at home. These include adult day care, case management, home health, and family caregiver support.

Assisted living is the fastest growing segment of long-term care. Despite its rapid growth, a recent national study indicates that assisted living is still not a complete substitute for nursing home care (Hawes, Rose, & Phillips, 1999). First, assisted living is often not affordable for moderate and lower income elderly. The average monthly rate for a high privacy unit was \$1,800 in 1999. In most states, Medicaid does not fund assisted living. Second, people with functional decline have limited access to assisted living. The majority of the facilities offer little assistance beyond aid with medications and basic personal care. In addition, most do not accommodate individuals with severe physical disabilities or cognitive impairments. If less severely impaired individuals are now seeking long-term care at home or in assisted living, this may help explain why the level of acuity of nursing home residents has been increasing, while the census has been declining.

Home health care developed in response to the financial incentive to discharge patients earlier. Recent studies are inconsistent on

rural/urban differences in home health care use. Several studies have found that urban residents are more likely to be home health patients than their rural counterparts (Kenney & Dubay, 1992; Nyman, Sen, Chan, & Commins, 1991). However, other studies have found greater use of home health care in rural areas (Kenney, 1993; Dansky, Brannon, Shea, Vasey, & Dirani, 1998). These conflicting results may be due to the fact that long-term care research has typically focused on only one type of service use, ignoring substitution effects.

Despite these recent nursing home substitutes, research has shown that rural areas have a larger number of nursing home beds per capita than urban areas (Peek, Coward, Lee, & Zsembik, 1997). Likewise, older adults who live in rural areas are more likely to experience a nursing home admission than their urban equivalents. This may be due to the smaller number and narrower range of long-term care options available in rural areas. It has been suggested that rural elders may even be subject to “over-institutionalization” in nursing facilities based on a higher rural to urban bed ratio (Brannon, Dansky, Kassab, & Gamm, 1996). In addition, rural communities face greater demand for intermediate institutional care due to the difficulties in delivering home- and community-based care in remote areas.

The future availability and supply of informal caregiving also will affect the demand for formal long-term care. Approximately two-thirds of noninstitutionalized, disabled elderly relied on informal care from family, primarily wives or daughters (Stone, 2000). As people have fewer surviving

children and female labor participation grows, the supply of informal caregiving may decline. However, a recent study by Lakdawalla and Philpson (1999) suggests that spousal caregiving may grow because male life expectancy is growing faster than female life expectancy.

Even absent any growth in demand or shortfall in informal supply, there are several workforce strains on the long-term care industry. A recent Department of Health and Human Service's report suggested nursing homes need to hire a minimum of 280,000 additional RNs, LPNs and nurses' aides to reach current recommended staffing levels (Cohen-Mansfield, 1997).

Nurses are the primary professional provider of long-term care. However, the major paraprofessional provider is the certified nursing assistant, or home health aide, who provides most of the personal care and assistance with ADLs (Stone, 2000). Currently, the shortage and high turnover rate of paraprofessional workers has been described as a crisis for long-term care providers (Stone, 2000). This shortage is expected to continue as the pool of middle-aged women available to provide low-skilled personal care services declines.

Differences in job satisfaction have been observed between nurses working in rural and urban hospitals (Coward et al., 1992). However, nurses working in rural and urban long-term care facilities have indistinguishable levels of job satisfaction (Coward, et al. 1992).

Survey of Long-Term Care Providers

To further understand the current state of long-term care in Pennsylvania, the researchers surveyed all three types of long-term care facilities in the state: nursing homes, home health agencies, and assisted living or personal care facilities. As much as possible, the researchers used a similar survey instrument to enhance the ability to make comparisons across the facilities and across urban and rural counties. Forty percent of all long-term care organizations in the state responded to the survey.

Facility characteristics

In general, the results show that rural long-term care organizations have been in operation for fewer years than their urban counterparts, with a one-to four-year difference in average years in operation. Rural nursing homes (NHs), home health agencies (HHAs) and assisted living facilities (ALFs) are more likely than urban organizations to be for-profit (nonprofit and county homes and agencies are grouped together in the analysis). Rural NHs have a very similar patient age profile as nursing homes in urban areas, while both home health and assisted living facilities vary a bit in rural areas compared to urban areas. Rural HHAs generally have more patients under age 65. Rural ALFs tend to have older patients than their urban peers.

One important facility characteristic is the chain and health system membership of the long-term care organization. A chain operates two or more long-term care organizations of the same type, while a

health system includes several different types of health care organizations such as a hospital, nursing home, and several physician offices.

Rural organizations of all types are less likely to be a member of a chain. Rural NHs are more likely to be a member of a health system. This result is slightly altered if we use the rural-urban continuum, where completely rural organizations are usually more likely to be in a chain and a system member, while urban non-metro organizations are less likely to be in a chain or health system. Thus, there appears to be some differences between organizations that are in more rural areas, compared to non-metro areas.

Within rural areas, NHs and HHAs are, not surprisingly, substantially older than ALFs, with approximately 25 to 30 years in operation for the former two and just 12 for the latter. More than four-fifths of rural ALFs are for-profit, while the same is true for just two-fifths of rural NHs and rural HHAs. As would be expected, rural NHs treat the oldest group of patients, followed by rural ALFs and rural HHAs. It is important to note, however, that while rural NHs and ALFs count a larger percentage of persons over age 85 as part of their resident population, rural HHAs are treating almost six times more persons over age 85 during the course of a year. HHAs treat a larger volume of older persons over a shorter period of time.

Approximately one-third of rural NHs have a chain affiliation, which is much more common among rural NHs than rural HHAs or ALFs. Membership in a health system is most common among

rural HHAs, with 37 percent having such a membership, compared to just less than 25 percent of rural NHs and about 8 percent of rural ALFs.

It is an unfortunate fact that there is very little information on long-term care markets in the U.S. Because much of the information on long-term care institutions is collected by a variety of state, federal, and local organizations with little coordination in data collection, very few sources include detailed patient data, such as is typically found in hospital discharge data. As a result, research on long-term care markets has been difficult. Using data from several sources, the researchers offer the following glimpse at long-term care markets in Pennsylvania's rural counties.

The median number of nursing homes in rural counties is four, with a median of 400 beds across all facilities. The median occupancy rate in counties was just over 87 percent. Pennsylvania's rural counties have a median of one home health agency with approximately 60,000 home health visits. The median number of assisted living facilities is eight, with a median of 265 assisted living beds. The median assisted living occupancy rate was just over 81 percent.

The median number of persons age 65 and over in these rural Pennsylvania counties is nearly 8,000 persons. Unfortunately, data sources do not reveal whether most consumers of long-term care services in rural areas come from those same rural areas. Two recent studies suggest this is the case, at least for nursing homes. McAuley et al. (1999) examined data on nursing homes and resident admissions for Virginia. They

found that 4.4 percent of nursing home admissions came from out of state, 11.2 percent from a non-adjacent county within the state, 15.9 percent from an adjacent county, and 68.5 percent from the county location of the nursing home. A study of Medicare patients in New York found that "On average, nursing homes in rural counties had markets similar in size to their counties as a whole." (Zwanziger et al., 2002, p.62). Although that study found that defining nursing home markets by county could result in significant errors, especially in urban areas, it also indicated that few residents cross county lines in choosing a nursing home.

Environmental perceptions

As part of the survey, organizations answered several questions about the environment in which they are currently operating. As noted in the literature review, long-term care providers have been subject to enormous pressures in recent years and few studies of how they perceive these changes in the environment have been conducted. Organizations rated the level of competition in their environment and indicated whether they see opportunities or threats in these changes. In a second set of questions, the respondents identified the main barriers or threats to their organization.

In comparison to their urban peers, rural NHs see more competition in their current environment, while rural HHAs and ALFs see about the same levels of competition as urban facilities of the same type. All three types of rural facilities identified fewer opportunities in the changing environment and rural ALFs also reported greater levels of threat. In examin-

ing opportunities, the major significant differences are between ALFs and HHAs in both urban and rural settings. In general, rural long-term care providers seem somewhat more negative in their view of the changing environment than urban providers, though not dramatically so.

Across the rural long-term care spectrum, nursing homes and HHAs perceive the greatest competition, while HHAs perceived greater opportunities and fewer threats. Rural ALFs perceived lower competition than other rural providers, but also fewer opportunities.

Despite these differences in overall environmental perceptions, all long-term care providers were remarkably consistent in their identification of the main barriers or threats to providing access to good long-term care in the state, namely workforce issues. Rural and urban nursing homes both identified shortages of RNs, LPNs and CNAs as their chief barrier. Rural and urban ALFs identified labor costs as the chief barrier, as did rural and urban HHAs. Urban home health agencies and rural ALFs each identified government regulation as a barrier.

Long-term care providers are increasingly caught between payers' concerns about cost control and quality and staffing issues. A growing body of evidence indicates a very clear connection between staffing levels and quality of care. A major study of this issue conducted by researchers for the Health Care Financing Administration (now the Centers for Medicare and Medicaid Services) showed major quality deficiencies in facilities where there were fewer than 20 minutes of registered nurse care per



resident, 45 minutes of combined registered nurse and licensed practical nurse care per resident and two hours of nursing assistant care per resident each day. That study recommended those amounts as the absolute minimum staffing level. It further offered higher staffing levels of 27 registered nurse minutes per resident and one hour of combined registered nurse and licensed practical nurse per resident to prevent less serious quality problems. With the nurses' aid requirement, this would suggest a minimum of approximately three hours of nursing care per resident day. The National Citizens' Coalition for Nursing Home Reform has taken this study and other studies and developed a Consumer Minimum Staffing Standard. Their standard would require 4.13 hours of nursing care staff per resident day, including a minimum of 1.2 hours of RN or LPN care per resident day (Abt Associates, 2001; National Citizens' Coalition for Nursing Home Reform, 1998).

While Pennsylvania has developed minimum staffing standards that are quite detailed, the current state standards fall short of these current recommendations. Pennsylvania requires a minimum of 2.7 hours of direct care staff per patient per day. The staff may be registered nurses, licensed practical nurses or nurse aides. Thus, Pennsylvania's current standards for care fall short of levels now

demonstrated to be connected to quality care.

The dilemma for providers and policy-makers, of course, is that increased staffing requirements face two major roadblocks. As the survey indicates, providers are already having enormous difficulty recruiting and retaining existing staff. Nationally, the nursing shortage is significant. Mandating increased staffing in the current labor market would make the nursing crisis worse. Furthermore, it is questionable whether current Medicare and Medicaid reimbursement levels are consistent with these increased staffing levels.

There are a few areas where rural facilities perceive slightly greater barriers than urban facilities. For nursing homes, rural organizations identified competition from other NHs and substitution from other long-term care organizations, hospital expansion into long-term care, CNA shortages, and regulation as greater barriers than did urban NHs. Rural HHAs identified shortages of RNs and LPNs as greater barriers than did urban HHAs. Finally, rural ALFs listed competition from other ALFs, hospital long-term care expansion, and regulation as greater barriers than did urban ALFs.

Relationships with managed care

While managed care has not become a centerpiece of long-term care, it is likely to become more important in the future. While some long-term care providers in rural Pennsylvania lag behind their urban peers in developing managed care relationships, they are not

ignoring the development. In fact, overall, rural NHs and HHAs are slightly more likely to have some form of managed care relationship in their plans. Although rural NHs are less likely to have an established managed care relationship, they are almost twice as likely to be entering in negotiations to do so. In contrast to nursing homes and HHAs, ALFs are much less likely to be involved in managed care in both urban and rural areas.

Within rural areas, rural HHAs are more likely to have an established managed care relationship than are rural NHs, while both HHAs and NHs are more likely than rural ALFs to do so. Overall, however, there is little difference between rural HHAs and rural NHs in their managed care activities.

One of the important trends of the last few years has been the placement of nursing home quality information on the web by both Medicare and other sources. With this increased focus on quality of care, long-term care providers need to have a management strategy to assure and improve quality. This can strap resource-poor rural providers.

In the survey, however, rural long-term care providers are only slightly less likely than urban

facilities to practice quality assurance (QA), which are activities undertaken to assess quality, and quality improvement (QI), which are activities undertaken to improve quality. For both nursing homes and home health agencies, 80 to 90 percent of facilities engage in these activities. QA and QI practice among urban and rural ALFs is substantially lower, with only about half engaged in such activities.

Within rural areas, almost 90 percent of HHAs engage in QA and QI. Slightly more than 75 percent of rural NHs practice QA and QI, while fewer than 50 percent of rural ALFs do so.

One of the major environmental changes for nursing homes and home health agencies has been the implementation of a Medicare prospective payment system (PPS). As a result of these changes, NHs and HHAs have found an important share of their revenue stream changed from a facility-specific, retrospective cost-based system to a prospective, case-based regional system. The systems provide strong incentives for cost efficiency by pushing much of the risk for cost overruns onto the providers. In addition, however, changes in Medicare payment for hospitals were placing pressures on providers to provide more care for more severely ill patients.

In the survey, rural NHs and HHAs answered questions on the changes subsequent to PPS.

In comparison to urban NHs, rural NHs were slightly less likely to eliminate or add staff positions and slightly more likely to substitute one category of staff for another. Rural HHAs were more likely than urban HHAs to add new positions, but less likely to

engage in the other staffing changes and to reduce nursing hours and visits.

Within rural areas, rural HHAs were more likely than rural NHs to reduce staff. Rural NHs were more likely to use staff substitution or to increase positions than rural HHAs. The differences here are probably related to the much greater importance of Medicare payments for HHAs compared to nursing homes.

Both rural NHs and HHAs were less likely than urban providers to indicate that patient acuity or severity increased after PPS, although the differences were small. Rural NHs were much more likely than rural HHAs to indicate that patient acuity has increased after PPS.

One last question asked to long-term care providers concerned investments made as a result of PPS. Specifically, the providers were asked if they had invested in new information systems (IS), sought out consulting, or cross-trained employees. These investments were quite common across all providers in all communities.

Rural NHs and HHAs were slightly less likely than urban NHs and HHAs to invest in IS or seek out consultants. Overall, rural NHs were more likely than rural HHAs to engage in all three types of investments, with the biggest difference being in the use of consultants. Almost half of rural NHs used consultants, while fewer than one-quarter of rural HHAs did so.

County Level Descriptive Data on Demand and Supply

In addition to the survey, the researchers combined data from several secondary sources to examine demand and supply of long-term care in Pennsylvania at the rural and urban county level.

Nursing home care

Rural counties differ significantly from urban counties in three areas with respect to nursing home care.

A significantly higher percentage of the total rural nursing home staff are registered nurses (RNs) (12 percent rural versus 1 percent urban). Rural nursing homes also have a slightly lower total of RNs per nursing home resident. The third significant difference is in the Herfindahl index, a common measure of market competition. The Herfindahl is the sum of squared market shares of the firms. In this case, the market is defined as the county. Ideally, the market would be identified through patient origin data, but for most long-term residents, the patient's county of origin is the county where the nursing home is located, so the measure should not be substantially biased (Grabowski, 2001).

Higher values of this index are associated with less competitive markets. While excessive competition is often thought to have negative effects in health care, much recent evidence has revealed that lack of competition in health care can have negative effects as it does in the rest of the economy. In uncompetitive health care markets, consumers will face higher prices and poorer quality.

Therefore, policy-makers must be alert in health care markets to both excessive and inadequate competition.

Most guidelines for competition in healthcare focus on maintaining a Herfindahl index that is below .18 (the index is sometimes multiplied by 10,000, making the cutoff for possible monopolistic problems at 1800). Results for this study indicated the Herfindahl for nursing home care in urban areas in Pennsylvania is .12, while for rural areas it is .36. The level of competition is significantly lower in rural areas compared to urban areas, and this level of competition in rural areas is above the range where issues of monopoly power become a concern for market regulators.

Home health care

The results for home health care also show significant differences between urban and rural counties. First, rural counties have fewer home health agencies per county. The typical urban county has more than 11 home health agencies, while the typical rural county has fewer than two.

Rural and urban counties also differ in their payer mix – or the percentage of patients paid for by various insurers and other sources. Rural home health agencies have a much higher percentage of patients who are covered by Medicaid or make out-of-pocket payments compared to urban home health agencies. Urban home health agencies derive a much larger share of their payments from the Medicare program. Since these payment sources differ in their payment levels (Medicare generally being the highest and Medicaid

the lowest), this result suggests the possibility for revenue problems in rural home health agencies.

The analysis also shows that, similar to nursing home care, home health markets are much less competitive in rural areas. The home health Herfindahl index in rural counties in Pennsylvania is .56, significantly higher than the urban Herfindahl of .34. These indices indicate a lack of competition between home health agencies in both urban and rural counties. Again, these levels of monopoly power are often considered excessive in most areas of health care.

Assisted living care

In terms of assisted living care, several important differences related to the demand and supply in rural and urban counties were uncovered. The first set of differences fall in the area of payment sources. A significantly greater percentage of assisted living care payments in urban areas are through self-pay, rather than other (often public income) sources. Approximately 66 percent of urban assisted living residents are self-pay, while just over 60 percent of assisted living patients in rural areas fall into this category.

The second set of differences relates to staffing. ALFs in rural areas have a higher percentage of staff who are licensed nurses and a lower percentage who are certified nurses' aides compared to ALFs in urban areas. Within the licensed nurse category, however, ALFs in urban areas have a higher percentage of staff who are RNs and a lower percentage who are LPNs.

The final difference echoes those of the other two provider types; rural areas have much lower levels of competition, again reaching a level that typically indicates that competition is inadequate. The level of competition between ALFs in rural areas, however, is somewhat better in comparison to the other long-term care areas. The rural Herfindahl for assisted living is .21, not quite as high as that found in the other two provider types, but still higher than levels typically believed to begin to raise issues of monopoly power. In addition, this level is significantly higher than the value found in urban areas (.06).

Summary of data

The results of this research tend to reflect a common bind regarding long-term care that often presents itself in rural areas. The comparison indicates that rural areas typically have greater percentages of their long-term care paid for by Medicaid or other public income sources. In general, older rural residents have lower incomes, less wealth, and less comprehensive health insurance than urban residents. This combination means that demand for formal long-term care will typically be lower in rural areas, even when need is similar to or greater than that found in urban areas. While public subsidies may reduce these demand differences, they often will not eliminate them.

Lack of sufficient demand may inhibit supply. For all three provider types, highly uncompetitive markets characterize rural areas. Lack of competition can have several important responses that exacerbate long-term care market

problems in rural areas. For example, excessive market power among long-term care providers would typically lead to higher prices for services and/or poorer quality. In either case, both would lead to lower demand in rural areas.

Another possible response is that excessive market power in an output market, such as providing nursing home, home health, or assisted living services, may lead to excessive monopoly power in input markets, such as markets for employees in long-term care. Just as some health care observers worry that excessive concentration in managed care markets may lead to inadequate capitation rates for physicians, lack of long-term care competition may depress long-term care compensation.

Low payments may be more of a concern, because they, too, may have a feedback to demand. Lower payments to staff would typically be expected to lead to lower quality staffing. To the extent that this leads to lower quality of care, it too can result in lower demand.

While certainly more detailed analysis is required, long-term care in rural areas of Pennsylvania may be suffering from what might be called “thin market syndrome.” While rural residents have many of the same needs for long-term care, lack of demand, resulting from general differences in rural economies that are not fully addressed by income support and health insurance policy, might lead to supply that, while adequate to meet effective demand, falls short of need. That lack of supply can actually lead to an even greater gap between market demand and supply and population need,

because it drives up prices and reduces quality, both directly and indirectly through effects on input or labor markets.

Solutions to this problem are not simple. Since the fundamental problem may be lack of demand, it might be argued that policy should simply expand income and insurance coverage in rural areas. However, appropriately directing subsidies to rural residents in need of long-term care is difficult and doing so in a way that does not discriminate against persons based upon place of residence may not be possible. However, creative methods of doing so should at least be explored. Stimulating general economic development in rural areas would certainly help over the long term, but such a diffuse policy may also be inadequate, unfocused, and too slow.

An alternative, or even complementary policy, might be to focus on stimulating supply. Supply stimulation is always a difficult proposition, because if demand is simply not present, supply stimulation can simply lead to competition that inevitably results in some suppliers failing to attract revenue sufficient to survive. However, such a policy may be successful at least in slightly improving the level of market demand and supply closer to need, while perhaps setting the stage for later developments. For example, the Federal HMO Act resulted in only mild stimulation and increases in the number of managed care organizations after its passage. However, as demand grew in the 1980s and 1990s, this mild stimulation provided the foundation for supply to respond.

Thus, one possibility to consider is to focus some mild supply

incentives on rural areas, particularly those where the mismatch between market demand and supply and need are greatest.

Gaps in Long-Term Care Demand and Supply

The preceding section introduced the idea that one problem in rural areas may be the gap between need and demand. Rural residents may have similar needs as urban residents, but lack of income, insurance, or other factors restrict their ability to demand needed services.

A second problem in long-term care may be the gap between supply capacity and demand. Normally, in a competitive market, such gaps cannot persist. If demand exceeds supply, then new suppliers enter the market and existing suppliers expand their capacity to meet the demand. Extensive studies of nursing home markets, however, suggest that gaps between demand and supply in long-term care may be persistent. The reason for this problem stems from two common features of nursing home markets. First, demand is stimulated by the presence of Medicaid, which subsidizes nursing home care. Second, many states have used certificate of need programs or bed moratoria to limit the ability of nursing homes to expand supply capacity.

This combination of demand stimulation and supply restriction can result in “excess demand,” where market demand equals or exceeds supply capacity. For many years in many states, data indicated that nursing homes operated at 95 percent or more of capacity,

often with long waiting lists, especially for Medicaid patients. In recent years, however, it appears that excess demand has lessened in some areas.

The gap between supply and demand (excess demand) and the gap between need and demand together represent the gap between the current long-term care needs of Pennsylvanians and the current supply of services to them.

To examine the gap between demand and supply, an estimate of demand for services in each county is compared to the actual supply of services in each county for each of the three types of services (nursing home, home health, and assisted living).

A key factor impacting all types of care is population. For nursing home care, the only other significant demand factor is per capita income in the county. For home health care, demand is also positively related to income, the percentage of the population that is white in the county, and the unemployment rate in the county (it's not clear why this variable would be positively related to home health care demand). It is also negatively related to the percentage of households in the county that are married families, an indicator of informal care alternatives. Finally, for assisted living facilities, the percentage of the county population that is white is related to demand.

According to the research estimates, both rural and urban counties have slight surpluses (supply exceeding demand) in nursing home care and assisted living care. In home health care, urban areas have a shortage (demand exceeding supply) while rural areas have a slight surplus.

The nursing home and assisted living surpluses are smaller in rural counties, and this is the only area where urban and rural areas are significantly different. In other words, the current data do not show a dramatic level of excess demand exceeding supply capacity in rural Pennsylvania counties. Furthermore, since the research calculations are made by comparing demand to total supply capacity, it should be kept in mind that most organizations do not prefer to operate at 100 percent of capacity. Assuming normal levels of operation at somewhere between 80 to 90 percent of capacity, it is likely that there is an effective shortage of services in rural areas.

Throughout the 1980s, many long-term care analysts argued that government policies had resulted in significant excess demand, especially in the area of nursing home care, with negative consequences for nursing home residents, including poor access for Medicaid and heavy care patients, poor quality of care, high prices, and other problems. More recent evidence suggests that growth in long-term care alternatives and changes in payment methods may have reversed that situation.

While the evidence here is not conclusive, it is supportive, in general, of that state of affairs. The research does not suggest a large excess demand problem in long-term care. However, given reasonable assumptions about the ability of long-term care organizations in the state to supply services, there appear to be shortages of nursing home and assisted living, and possibly home health care, in rural Pennsylvania.

Conclusions and Recommendations

Long-term care in Pennsylvania, as in many states, faces several critical problems now and in the future. The aging of the population, even with improved health, is likely to increase demand for long-term care services. While the private resources of older persons to meet that demand have been growing, changes in pension systems and the ability of the near-elderly to save for retirement may hinder further private spending. At the same time, the industry is beset with significant workforce problems at a time when demonstrable evidence that quality is directly related to higher staffing levels is appearing. In addition, public payment systems are moving to models that continue to place more risk on providers for cost over-runs and often are inconsistent with the staffing levels called for in regulations or indicated by evidence on quality. Public payers are strapped by the increasing costs of long-term care as revenues fail to keep pace. Rural providers, in particular, have significantly greater difficulties in staffing and often treat older, sicker, more costly patients who are more likely to be paid for by public payers with tighter payments. Furthermore, the industry is increasingly confusing to consumers because of the variety of providers addressing different segments of the population. The industry is also difficult to regulate effectively because of the differences between provider types.

Despite these pessimistic notes, there are several steps that should be considered to improve the state of long-term care in Pennsylvania.

In particular, the following actions should be considered:

- To continue to support the role of private financing in long-term care, Pennsylvania could expand access to long-term care insurance through tax credits and other means that will allow individuals to insure home-, community- and institutional-based services.
- Pennsylvania continues to lag behind other states in its use of home- and community-based services for long-term care, spending significantly less on these services as a proportion of the total state budget for long-term care. The Pennsylvania Departments of Public Welfare and Aging could seek to aggressively expand the existing Medicaid waiver programs and identify other state models of home- and community-based services.
- The Pennsylvania Departments of Health, Aging and Public Welfare could continue to expand funding to address the direct care worker shortage, targeting those areas where shortages are most acute. Existing efforts should be evaluated to identify those efforts that are most successful at recruiting and retaining long-term care workers.
- The Pennsylvania Attorney General's Office could study and monitor ongoing changes in the long-term care industry, particularly in rural areas to address the potential for market power to inhibit competition and reduce quality of care.

- The Pennsylvania Department of Health could look to expand licensure and regulation of assisted living and personal care homes, while reassessing regulations of nursing homes and home health care to ensure that a level playing field across the spectrum of long-term care is provided.
 - The Pennsylvania Department of Health, in collaboration with other state agencies and legislators, may consider Pennsylvania staffing regulations which require 2.3 to 2.7 hours of nursing care in light of recent evidence on staffing and quality in long-term care, which recommend three to four hours of nursing care per resident. Pennsylvania should also consider adopting additional National Citizens' Coalition for Nursing Home Reform standards on administration, staff education and training, and public disclosure of facility staffing. While doing so, the Department of Health could work with the Department of Public Welfare to ensure the adequacy of Medicaid payment in light of these studies.
- While these steps would only represent a beginning for Pennsylvania to address the long-term care needs of its current and future elderly, they would begin to move the long-term care system in the direction required. The future of long-term care in Pennsylvania is one that will require a concerted effort by all parties to ensure quality care for older Pennsylvanians at a cost that taxpayers and consumers can afford.

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Availability Of Long-Term Care Services In Rural Pennsylvania

According to statistics from the U.S. Census Bureau, 15.6 percent of Pennsylvania's population is age 65 or older. From 1990 to 2000, the population age 65 and older in the commonwealth increased about 3.3 percent. The most dramatic increase was among Pennsylvanians age 85 or older; from 1990 to 2000, this age group increased 38.2 percent (PANPHA, 2001).

In Pennsylvania's 42 rural counties, according to the Center for Rural Pennsylvania's 1990 definition of rural, the increase in the number of older Pennsylvanians was more pronounced. From 1990 to 2000, rural counties experienced a 9.3 percent increase in the number of residents age 65 and older. Over that same period, the number of rural Pennsylvanians age 85 and older increased 40.6 percent (PANPHA, 2001).

The aging population in Pennsylvania is expected to increase approximately 33 percent over the next 20 years. The number of persons age 60 and older is expected to grow from 2,430,821 in 2000 to 3,229,345 by 2020. Projections suggest that the percentage of Pennsylvania residents age 85 and over will increase from 237,567 in 2000 to 306,131 by 2020 or approximately 29 percent (PANPHA, 2001).

The increase in the number of older Pennsylvanians and demise of state-run hospitals for individuals in need of mental health or mental retardation services raise concerns about providing long-term care. "Long-term care" is an umbrella concept that includes the provision of a wide range of services that meet the medical, personal, and social needs of individuals. Long-term care includes institutional settings, such as nursing homes and personal care homes, and community- and home-based services, such as, home health services and community nursing programs. In addition to these "organizational care providers," the burden of caring for seniors and individuals with mental illness or mental retardation often falls on family caregivers.

Providing long-term care services for individuals in rural settings has challenged policymakers nationwide. Rural counties, because of low population density, are less likely to have a variety of long-term care options from which to choose. For example, the commonwealth's 42 rural counties have on average five long-term care nursing homes, while the 25 urban counties have on average 24 of these facilities (PANPHA, 2001). Evidence from the Robert Wood Johnson Foundation suggests that long-term care options in rural areas are fewer because of a scarcity of able caregivers for home-based services (Alper, 2000).

This report primarily focuses on community-based and in-home services available for Pennsylvanians in 12 rural counties. However, to fully understand the issue of service availability, a thorough understanding of the long-term care service network is necessary. As such, the report initially discusses the primary agency responsible for providing services: the Area Agency on Aging (AAA) and its "parent" organization, the Pennsylvania Department of Aging (PDA). The report also

reviews two programs impacting the operation of the AAAs: Adult Protective Services and the Family Caregiver Support Program.

The report also presents an analysis of three surveys conducted with various constituent groups in the long-term care services network, including organizational care providers identified as part of the aging network in the 12 counties, those associated with the mental health and mental retardation community, and individual workers in the long-term care community.

The report also includes issues raised by staff of the AAAs, organizational providers and individual workers and offers policy recommendations associated with these concerns.

The Aging Network

Current public policy affecting older Americans owes a great deal to three pieces of legislation signed into law in 1965. First, the Medicare program, designed to provide health insurance for senior citizens, was incorporated into the Social Security Act. Second, Medicaid was implemented to provide health insurance for individuals with little income. Finally, the Older Americans Act of 1965 established the Administration on Aging under the direction of the Department of Health, Education and Welfare.

While Medicare and Medicaid are important components of the long-term care landscape, it is the Administration on Aging and the expansion of services that are reviewed here. At the outset, the Act created the organizational structure for funding state social service programs for seniors. The scope of programs increased gradually, first with the passage of Title II in 1972; Title II authorized

funds for a national nutrition program for seniors. With the 1973 amendments to the Act, states were directed to establish Area Agencies on Aging to provide community-based services. The 1973 amendments and the programs initiated under the 1974 amendments to the Social Security Act in 1974 provided additional funding to states for adult protective services, homemaker services, transportation services, adult day care, job training programs, and information and referral services (Administration on Aging, 2002). The 1973 amendments and the programs initiated under the 1974 amendments to the Social Security Act form the basis of programs offered by states today.

In Pennsylvania, aging services are directed by the Department of Aging; the Area Agencies on Aging (AAA) represent the department at the county level. There are 52 AAAs serving the commonwealth. The Department of Aging does not mandate a specific structure for the AAAs; the agencies operate either as a unit of county government, a not-for-profit corporation, or as a for-profit corporation.

Regardless of their structure, the purpose of each AAA, as outlined in the State Plan on Aging, 2000-2004 is:

- To serve as a community planning agency to improve services to older people;
- To act as an advocate for the aging;
- To provide or purchase services which help elderly people remain in the community to avoid unnecessary or premature institutionalization; and
- To assist older people in remaining active citizens in their community.

The AAA offer a variety of support services to seniors within their communities.

The funding for programs and services provided by the AAA come from a myriad of sources. According to the State Plan on Aging, the Department of Aging allocates \$304 million to the AAA for delivery of services to seniors (Pennsylvania Department of Aging, 2000). Each agency receives a block grant from the Department of Aging. The Pennsylvania Lottery, created in 1971, provides support for the 52 AAAs. Lottery funds also support the PACE (Pharmaceutical Assistance Contract for the Elderly) and PACENET programs, and the Rent and Property Tax Rebate programs. Agencies that are not-for-profit organizations under the Internal Revenue Code may receive additional funding through grants from foundations. For example, the Clearfield County Area Agency on Aging received funds from the Robert Wood Johnson Foundation, a nationally recognized health care philanthropy.

Agencies determine the allocation of their resources on an annual basis. One program the agencies are mandated to provide is protective services for older adults. The Older Adults Protective Services provides assistance to those aged 60 and older who are at imminent risk of abandonment, abuse, financial exploitation or neglect. "Any person having reasonable cause to believe that an older adult is in need of protective services may report such information to the agency which is the local provider of protective services." (35 P.S. § 10225.302(a)). When the AAA receives a report of abuse or neglect, the agency must send a

caseworker to investigate the incident within 72 hours. As the number of reported incidents of elder abuse increase, counties will need to devote additional resources to the Adult Protective Services Program (Administration on Aging, 2002).

The Family Caregiver Support Program (FCSP) is a relatively recent addition to the services provided by the AAAs. When the Older Americans Act was amended in 2000, Congress established the National Family Caregiver Support Program. The program was modeled after demonstration programs from California, New Jersey, Wisconsin, and Pennsylvania. The FCSP is largely the result of the recognition that 25 million individuals are acting as caregivers in the United States each day (National Family Caregivers Association, 2000). The federal program requires states to provide: 1) information for caregivers about available services; 2) assistance to caregivers in accessing those services; 3) counseling and caregiver training; 4) respite care; and 5) supplemental services that complement care provided by the caregivers (Administration on Aging, 2002). In 2001, Pennsylvania was slated to receive \$6,097,763 to provide support to family members providing care for seniors in their homes.

Because the commonwealth permits counties to establish their AAAs through a variety of models and the agencies enjoy discretion in allocating their resources to programs, little uniformity exists in the operation of programs for seniors.

Long-Term Care Options and Network Operation

Though the primary emphasis of this report is on community-based and in-home services, it is important to recognize the impact nursing homes and personal care homes have on community-based and in-home services. Research by Harrington, Carrillo, Wallin (2000) shows the number of nursing home beds per 1,000 population is a strong negative predictor of the number of Medicaid waiver participants. A brief overview of institutional options within the commonwealth will provide more context for the discussion of services.

Nursing homes

According to the Pennsylvania Department of Health (1999), there were 793 long-term care nursing facilities in the commonwealth in 1999. These facilities had 96,696 beds licensed by the commonwealth. These nursing homes also may seek certification to serve Medicare and Medicaid patients. Statistics from the department show that there are 50.9 licensed beds per 1,000 residents age 65 and older.

Approximately 26 percent of the long-term care nursing facilities are located in commonwealth's 42 rural counties; these 205 facilities have 22,460 licensed beds or 23.2 percent of the commonwealth's total licensed beds.

Personal care homes

Personal care homes provide safe, humane, comfortable, and supportive residential settings for aged, blind, disabled, and other dependent adults who require

assistance beyond the basic necessities of food and shelter but who do not need hospitalization or long-term nursing care. The Department of Public Welfare (DPW), through its Office of Social Programs, licenses personal care homes.

The number of personal care homes licensed by the commonwealth increased during the 1980s after the inception of the licensing program. As of April 2001, DPW reported 1,944 licensed personal care homes with 78,424 beds.

Community- and home-based care services

According to data from the AARP, 86 percent of the elderly want to live the remainder of their lives in their own homes (Bergquist, 1999). As such, community- and home-based care services are important components of the long-term care landscape.

In Pennsylvania, a wide range of services falls under the label "home- and community-based services." The services include home health care, personal care, and health support services. Home health care services must be prescribed by the care recipient's physician. Personal care services provide assistance to individuals with activities of daily living (eating, grooming, bathing, toileting, and dressing). Health support services include assistance with housekeeping, laundry and grocery shopping.

In addition to these three types of assistance, transportation and home-delivered meals are included under the umbrella of "home- and community-based services." Programs offering respite care are also included.

Beyond the formal home- and community-based services provided by organizational providers or paid caregivers, Marshall Kapp (1995) suggests “[t]he majority of home care in the United States at present is provided informally.” Often, members of an individual’s family are trained by home health aides to provide particular services.

An examination of 12 Area Agencies on Aging

Initially, 12 counties representing four regions of the commonwealth as identified by the Office of Social Programs were selected based upon the growth rate of their population age 65 and older from 1990 to 1998 and the number of institutional service providers (nursing homes and personal care facilities) located within each county. No counties from the southeast region were included in the analysis since they were considered urban. Four of the counties selected were part of a multi-county Area Agency on Aging. Because it is impossible to segregate the services on a county-by-county basis, information is presented for all of the counties in each agency. Thus, the report covers the operation of aging services offered by 12 Area Agencies on Aging in 20 of Pennsylvania’s 67 counties.

Table 1 provides a summary of the population served by Area Agencies on Aging, the institutional services (long-term care nursing facilities and personal care homes), and the community-based services (licensed home health agencies, hospice providers, and community mental health centers) for each county included in this study. This table illustrates the diverse long-

term care networks operating in rural Pennsylvania. For example, Pike County has the most pronounced growth among residents age 65 and older in the commonwealth. Pike County has a single long-term care nursing facility, two personal care homes, and one home health agency. Pike County offers a sharp contrast to Butler County with its 13 long-term care nursing facilities and 56 personal care homes with more than 2,000 beds.

Table 1 also illustrates the low number of licensed home health agencies, hospice providers, and community mental health centers in the rural areas of the commonwealth. Counties that are located nearer to the commonwealth’s urban areas have more home- and community-based services available for their clients.

Survey Results

Three surveys were conducted to assess the perceptions of various actors in the long-term care network in the areas covered by the 12 Area Agencies on Aging included in this study. Survey I focused on the operation of organizational providers of senior services. An organizational provider is defined as any provider of services that consists of more than a single individual; organizations may be for-profit or not-for-profit and may have employees or volunteers who provide services. Survey II examined organizational providers who serve individuals in need of mental health or mental retardation services and Survey III assessed the services provided by “private duty” providers. A “private duty” provider is an individual who reported to the county AAA that he or she would be willing to

provide in-home services for individuals.

For Survey I, organizational providers were identified by the AAA and Internet resources. The organizational providers received a survey by mail in August 2001; organizations that did not respond received a postcard reminder with contact information in October 2001. Organizational providers of mental health and mental retardation services were identified through Internet resources for Survey II. Surveys were mailed to these organizations in November 2001; reminder postcards were mailed in January 2002. For Survey III, AAAs were asked if they maintained “private duty” lists to distribute upon request. Five of the 12 AAAs provided lists for this project. From the five “private duty” lists, 233 individuals were identified as individual providers. After obtaining complete addresses for these individuals, often through telephone contact with the individual, surveys were mailed. Individual providers who did not respond were contacted by phone, if possible, and reminded to complete the survey.

The following sections discuss the findings of each survey in detail.

Survey I: Organizational providers of senior services

Two hundred thirty-three organizational providers received a survey in August 2001; 49 organizational providers returned surveys for a response rate of 23 percent.

Characteristics of organizations

All of Pennsylvania’s 67 counties were served by at least one of these organizational providers.

Table 1: A Summary View of the Long-Term Care Network in 20 Counties

	Total Population 2000	POPULATION 65 YEARS OLD AND OLDER		POPULATION 85 YEARS OLD AND OLDER		LONG TERM CARE NURSING FACILITIES		Average Length of Stay (In Days)	Average Occupancy Rate
		# Persons 2000	% Change 1990-2000	# Persons 2000	% Change 1990-2000	# Facilities	Total # Beds		
Bradford	62,761	9,865	10.3%	1,205	30.0%	5	483	314	94.1%
Butler	174,083	24,821	21.2%	3,506	56.6%	13	1,636	202	89.8%
Cameron	5,974	1,180	7.8%	162	88.4%	1	40	608	81.2%
Clearfield	83,382	14,094	8.5%	1,736	47.0%	5	722	262	82.9%
Elk	35,112	6,073	8.9%	725	58.0%	2	258	266	90.3%
Fayette	148,644	26,930	3.3%	3,197	45.3%	8	710	158	84.2%
Greene	40,672	6,193	-4.7%	811	26.1%	3	252	147	89.1%
Indiana	89,605	13,323	7.4%	1,627	52.2%	6	558	177	80.5%
Lawrence	94,643	18,223	2.5%	2,228	40.7%	12	1,044	196	87.5%
Lebanon	120,327	19,696	15.4%	2,692	54.8%	12	1,370	580	93.0%
McKean	45,936	7,663	-2.8%	1,041	20.5%	6	607	402	88.9%
Perry	43,602	5,345	17.0%	542	37.2%	4	280	288	89.9%
Pike	46,302	7,017	61.1%	541	74.5%	1	80	486	80.1%
Snyder	37,546	5,275	14.3%	583	46.1%	2	241	119	89.1%
Somerset	80,023	14,436	8.9%	1,797	53.9%	7	715	241	88.3%
Sullivan	6,556	1,434	12.5%	188	9.3%	2	190	372	79.2%
Susquehanna	42,238	6,546	5.8%	776	25.8%	3	261	411	93.3%
Tioga	41,373	6,608	7.4%	780	27.9%	3	268	236	85.3%
Union	41,624	5,584	22.8%	829	54.1%	4	427	258	79.2%
Washington	202,897	36,323	1.5%	4,251	48.1%	12	1,350	106	83.3%

TABLE 1: A SUMMARY VIEW OF THE LONG-TERM CARE NETWORK IN 20 COUNTIES (CONTINUED)

	PERSONAL CARE HOMES		Largest Facility (# Beds)	Total Licensed Home Health Agencies	Total Hospice Providers	Total Community Mental Health Centers	
	# Personal Care Homes	Total # Beds					
Bradford	14	314	8	64	3	2	0
Butler	56	2,313	5	196	4	1	1
Cameron	4	53	8	20	0	0	0
Clearfield	16	655	8	121	5	2	0
Elk	4	168	8	80	4	2	0
Fayette	70	1,484	2	105	4	2	1
Greene	22	324	6	39	1	0	0
Indiana	54	1,263	1	120	2	1	1
Lawrence	18	539	8	75	3	1	0
Lebanon	21	878	8	109	1	1	0
McKean	9	294	8	112	2	1	0
Perry	3	46	8	30	0	0	0
Pike	2	98	35	63	1	0	0
Snyder	2	103	8	95	0	0	0
Somerset	31	700	4	107	2	2	0
Sullivan	1	17	17	17	0	0	0
Susquehanna	10	238	8	84	2	0	0
Tioga	13	335	5	60	1	1	0
Union	5	263	20	100	0	0	0
Washington	65	1,755	6	162	6	1	0

These organizational providers have been providing services for 11 to 20 years on average. Slightly more than half (53 percent) of the organizational providers are for-profit organizations.

On average, these organizational providers employ between 26 and 50 paid employees; however, the average number of full-time employees is between 16 and 25. Approximately four out of every 10 providers reported using volunteers to provide services; on average, the number of volunteers is between 16 and 25. Approximately 25 percent of the organizations have employees who speak a second language, most commonly Spanish.

Two-thirds of the organizations, or 67 percent, had more than 100 clients at the time of the survey. Sixteen percent of the organizational providers reported having a waiting list for their services. Hospitals and physicians were the two most common sources of referrals to these organizational providers.

Cost of services and payment of employees

Organizational providers charged their clients between \$6.90 and \$155 per hour; the maximum rate ranged between \$8 and \$185 per hour. The median rate charged was \$12 per hour.

Organizations reported a minimum wage rate ranging from \$5.15 to \$110 per hour; the maximum wage rate ranged from \$6.50 to \$110 per hour. The median wage rate paid was \$6.80 per hour.

The range of rates charged and wages paid reflect the variety of services provided by home- and community-based providers. For

example, providers with lower billing and wage rates provided personal care services, while providers who approached the maximum rates charged provided physical or occupational therapy services.

Based on the income and the expenditure information provided in the survey, organizational providers are earning between \$1.75 and \$45 per hour when comparing the minimum rate charged and minimum wage rate. Using the maximum rate charged and the maximum wage rate, organization providers are collecting between \$1.50 and \$75 per hour to cover the cost of administering services.

Services provided by organizations

Eighty-six percent of the organizational respondents were approved providers of PDA waiver services. Sixty-one percent provide personal care services. None of the organizational providers surveyed provided legal services or home modifications.

In addition to providing services for seniors, 41 percent of these organizations provide care for mentally handicapped and mentally retarded residents of the commonwealth; these 20 organizations also provide care for veterans.

Organizational provider comments

At the conclusion of the survey, the organizational providers were asked to provide their views on the issues facing the long-term care industry and the providers of home- and community-based services.

Sixteen providers offered comments and two issues

emerged: the availability of long-term care workers and the low level of payment by third-party payers.

Ten of the 16 respondents (62.5 percent) expressed concern about the low numbers of individuals interested in jobs, especially those with health care backgrounds. Four providers (25 percent) expressed concern about the reduced levels of reimbursements from third-party payers.

Survey II: Organizational providers of mental health and mental retardation services

Fifty-four organizational providers of mental health and mental retardation services were surveyed. Eighteen returned surveys for a response rate of 33 percent.

Characteristics of organizations

The respondents reported providing services to individuals in the MH/MR network in 25 counties in the commonwealth, including Allegheny, Armstrong, Bedford, Butler, Cambria, Cameron, Carbon, Columbia, Cumberland, Dauphin, Elk, Fayette, Greene, Indiana, Lebanon, McKean, Monroe, Montour, Perry, Pike, Snyder, Somerset, Union, Washington, and Westmoreland. Eighty-nine percent of these organizations have provided services for more than 20 years. All of the respondents reported being not-for profit entities.

On average, these providers have between 51 and 75 paid employees; almost 40 percent of the organizations have more than 100. Five of the 18 respondents, or 27.8 percent, use volunteers to provide services. Almost 60

percent of the organizations have employees who speak a second language, most commonly Spanish.

About 72 percent of the organizations had more than 100 clients at the time of the survey and approximately 56 percent have a waiting list for their services. The two most common sources of referrals to these organizational providers were the county MH/MR office and hospitals.

Cost of services and payment of employees

The majority, or 53 percent, of the organizational respondents based their fees on the services provided. For those organizations that reported a minimum rate charged to clients, 62.5 percent provided services for free. The maximum rate charged to clients was \$175 per hour.

Organizations reported a minimum wage rate of \$5.25 to \$10.37 per hour; the maximum wage rate was from \$12.77 to \$85 per hour.

Organizational services

Organizations were asked about the services they provide to their clients. Half of the respondents manage residential facilities, while almost 39 percent direct outpatient programs. One-third of the organizations provided respite care, while about 39 percent provided day programs for their clients. Unlike the services provided to senior clients, only one-third of the respondents reported providing personal care services. These organizations focused on coordinating social services (77.8 percent) and providing individual (50.0 percent) and family (44.4 percent) therapy. One out of every five organizations (22.2 percent) ran an

employment skills program for their clients.

Organizational provider comments

Organizational providers of mental health and mental retardation services were also asked to give their views on issues facing providers. Eleven of the respondents provided detailed comments. Three issues emerge from this set of comments: hiring and retaining direct service providers, funding for services, and finding appropriate placements for clients.

As was the case with providing long-term care services for seniors, organizational providers of mental health and mental retardation services face the same challenge of hiring and retaining direct service providers. Low wages for direct service providers contribute heavily to the problem. Beyond personnel issues involving direct service staff, two organizational providers noted that with the passage of the Health Insurance Portability and Access Act (HIPAA), organizations will need more administrative staff to meet federal reporting requirements.

More than half of the written comments addressed issues surrounding funding for mental health and mental retardation services. Organizational providers noted the funding for mental health and mental retardation services has been stagnant for more than a decade. As the state closes more facilities for the mentally handicapped and mentally retarded, the burden shifts to community resources, that as one organizational provider stated, already “are stretched thin.” Organizational providers criticized the performance of the Department of

Public Welfare for imposing more mandates while failing to provide financial support to direct service providers.

The third area of concern was finding appropriate services for their clients. Waiting lists for services, limited housing options, and the closing of more state institutions were concerns expressed by these service providers. One commented that “while we have empowered consumers, consumers might not always be well informed.” The commentator pointed to the increased advertising for prescription medications, especially those for depression, and consumers believing that these products will work for everyone.

Survey III: “Private duty” providers

Five of the 12 Area Agencies on Aging in this study maintain “private duty” lists that they distribute upon request. From the five “private duty” lists, 233 individuals were identified as individual providers. Surveys were mailed to these individuals; 47 individual providers returned surveys, for a response rate of 20 percent.

Characteristics of providers

The 47 individual providers who returned surveys provide services in the following 24 counties: Armstrong, Berks, Cambria, Centre, Clinton, Cumberland, Dauphin, Fayette, Indiana, Jefferson, Lancaster, Lebanon, Lehigh, Lycoming, Northampton, Northumberland, Perry, Pike, Snyder, Somerset, Sullivan, Susquehanna, Union, and Westmoreland. The majority of individual providers (59.6 percent) cared for persons in only a single county while another 23.4 percent

cared for persons in a two-county area.

Ninety-three percent of the respondents were female. About 39 percent of the caregivers were between the ages of 55 and 64, and 15 percent were age 65 or older. Only 6.5 percent of the respondents were under age 35. Almost 24 percent of the respondents had provided services for 16 years or more, while 26 percent had provided services for 11 to 15 years.

Services provided by individuals

Individual providers were presented a list of services commonly associated with providing care to senior citizens. These services ranged from providing personal care, including bathing, dressing, eating, grooming, and toileting, to providing home maintenance such as plumbing and lawn care. Caregivers were also asked if they ever felt uncomfortable in providing any of these services.

More than 80 percent of caregivers reported providing assistance with the following: cooking (93.6 percent); performing household chores (93.6 percent); walking (91.5 percent); getting in and out of bed (91.5 percent); dressing (91.5 percent); doing laundry (91.5 percent); eating (89.4 percent); bathing (89.4 percent); toileting (89.4 percent); cleaning up after an accident (89.4 percent); and grocery shopping (83.0 percent). The services least frequently performed by caregivers included: electric, plumbing or carpentry services (12.8 percent); mowing the lawn (23.4 percent); giving injections (31.9 percent); assisting with banking (51.1 percent); assisting with a catheter or colostomy bag (55.3 percent); and distributing medicine (74.5 percent).

Only nine of the 47 respondents reported being uncomfortable with performing any of the services listed in the preceding paragraph. The most common tasks that caused the caregiver to feel uncomfortable were: toileting (five respondents); cleaning up after an accident (three respondents); and assisting with a catheter or colostomy bag (two respondents).

Among the 47 care providers, 25.5 percent provided care for mentally handicapped individuals and 27.7 percent provided care for mentally retarded individuals. Approximately 21 percent of the individuals reported providing care for veterans, while 19 percent indicated they would provide care for other populations in need.

Patterns of caregiving

Caregivers were asked about the number of individuals they served each week and the amount of time they provided services. Seventy percent cared for one or two individuals each week, and 11 percent cared for three individuals each week. The remaining 18 percent cared for between four and 25 individuals each week. Caregivers work 30 hours each week on average, with one caregiver providing only two hours of service each week and another providing care “24 hours a day, seven days a week” or 168 hours.

Individual providers were also asked about the number of individuals they cared for during the last year. As a follow-up question, care providers were asked how many individuals left their homes and moved to either a nursing home, personal care home, rehabilitation hospital, a relative’s home, or to another location. Slightly more than 21 percent of respon-

dents cared for two individuals during the course of the past year and 17 percent cared for three individuals. Two of the respondents reported not providing any care services during the past year, while one individual cared for 40 individuals during the last year. When examining those individuals who left their homes for another setting, the greatest number moved into a nursing home (40 percent) and the fewest moved to a rehabilitation hospital (5.6 percent).

Payment for services

Caregivers were asked if they had ever provided services for which they were not paid; about 47 percent provided unpaid services. Of these respondents, 35 percent provided services for a member of their family. Six of those, or 54 percent, cared for a parent, while the remaining five respondents cared for a daughter. In regards to this last response, it is possible that the respondents misconstrued the question and selected the response “Daughter” because it was their role in the familial relationship.

At the time the survey was completed, 68 percent of respondents charged a fee for their services. An additional 18 percent may or may not charge a fee, depending upon the care recipient. Sixty percent charged a fixed hourly rate, which varied from \$7 to \$13 per hour. The vast majority of respondents, or 79 percent, reported that none of the care recipients paid Social Security taxes on the care giver’s behalf.

Sixty-one percent of respondents earned less than \$10,000, 17 percent earned between \$10,000 and \$12,500 and about 10 percent earned more than \$25,000 a year for providing care services.

Individual provider comments

At the conclusion of the survey, the caregivers were asked to offer their views on the issues facing long-term care. Thirty-two of the 47 respondents, or 68 percent, responded and provided more varied responses than those provided by organizational providers. However, three themes emerged: keeping seniors in their own homes as long as possible; creating programs to meet the needs of care recipients; and recognizing that individuals who provide in-home care services are not motivated by financial rewards but by a sense of helping people in need.

Issues of Concern

From the survey of long-term care providers, three issues emerged that deserve thorough discussion: 1) the impact of the Medical Assistance Estate Recovery Program; 2) the shortage of workers willing to provide long-term care services in community- or home-based settings; and 3) the payment structure for long-term care services and potential changes in funding by the national government.

Medical Assistance Estate Recovery Program

With the “graying of America” and the rising costs of providing care to our elderly, states have increasingly turned to estate recovery programs to reduce expenditures for long-term care services. The goal of estate recovery programs is to recover the cost of benefits for long-term care services from a recipient’s estate after the recipient has died.

Before the passage of the Omnibus Budget Reconciliation

Act of 1993 (OBRA 93), states were permitted, but not required, to have an estate recovery program. Only about one half of the states had such programs in place; Pennsylvania did not. OBRA 93 conditioned the continued receipt of federal funds upon the implementation of an estate recovery program. States were required, at a minimum, to seek recovery of the cost of Medicaid benefits from certain nursing home residents and older persons receiving home and community-based services. Further, recovery efforts were directed toward individuals who were age 55 or older when they received Medicaid. States were also required to recover from estates of those permanently institutionalized.

OBRA 93 established broad parameters for state recovery programs, giving states the option to expand on several aspects of their baseline recovery efforts. States had the option of recovering payments for all other Medicaid services provided to these individuals. Further, states were required to develop standards to waive estate recovery because of undue hardship. Finally, the legislation established a definition of “estate,” which enabled states to include any property in which a beneficiary had any legal title or interest at the time of death, including assets passed outside of probate. A state could define this property to include joint bank accounts, living trusts, life estates in real property, and real estate held in joint tenancy.

On June 16, 1994, the Pennsylvania General Assembly passed legislation permitting the Department of Public Welfare (DPW) to seek repayment of Medical Assistance from the estates of

qualifying recipients. This legislation echoed the minimum recovery program requirements set forth in OBRA 93. DPW was required to recover from the “probate estate” of a decedent the amount of Medical Assistance paid with respect to beneficiaries who were 55 years or older at the time DPW paid for nursing facility services, home- and community-based services, as well as related hospital and prescription drug services. With the approval of the Governor, DPW was permitted to expand the Estate Recovery Program to include Medical Assistance for services other than those listed in the statute. DPW could also expand the program to recover against other real or personal property in which the decedent care recipient had a legal interest at the time of death. The statute was later amended to extend liability to the estate’s executor or administrator for transferring property of the estate without first satisfying the repayment obligation.

Pennsylvania’s Estate Recovery Program has been in operation since August 15, 1994. On February 1, 2002, DPW issued final regulations for Medical Assistance Estate Recovery. Although DPW was authorized to adopt a broad estate recovery program, DPW elected to establish only the minimum program required by OBRA 93. The significant aspects of the regulations were:

- DPW announced that it would restrict its recovery efforts for the following types of assistance: nursing facility services and home- and community-based services. Adhering to the language of OBRA 93, DPW has developed four scenarios in

which it will waive claims in case of undue hardship. These scenarios involve the primary residence of the decedent, income-producing assets, expenses for maintaining the decedent's home, and small estates.

- DPW would restrict its recovery efforts to property that passes through a decedent's estate. Consequently, property held jointly with a right of survivorship and property held in trust at the time of death would generally not be subject to estate recovery.

- DPW interpreted "probate estate" in the statute to include intestate estates.

- Permanently institutionalized persons under age 55 were excluded from the recovery program. Citing subsequent federal clarification, recovery from these persons was not required if a state does not have a process for determining that persons under age 55 are permanently institutionalized. DPW did not have such a process.

The Estate Recovery Program generated approximately \$20 million in calendar year 2000. Forty-four percent of this recovered amount, which is the commonwealth's share, goes directly into the long-term care appropriation to provide home- and community-based services and nursing home services to qualified individuals. For every \$1 million recovered through the Estate Recovery Program, approximately 141 individuals are provided services in home- and community-based settings annually.

If the Estate Recovery Program provides funding for more home- and community-based services,

why is the program viewed as an obstacle by staff in the Area Agencies on Aging? The answer to this question appears to lie in the perception of the program by the care recipients and the desire, especially among older Pennsylvanians, to pass on an inheritance to their heirs.

The search for long-term care workers

The long-term care labor force – nursing assistants, home health care aides, and personal care workers – forms the centerpiece of the formal long-term care system. These frontline workers provide hands-on care, supervision, and emotional support to millions of elderly and younger people with chronic illness and disabilities. Low wages and benefits, hard working conditions, heavy workloads, and a job stigmatized by society make worker recruitment and retention difficult.

The severe shortage of nursing assistants, home health care aides, and other long-term care workers is affecting long-term care nationwide. National data on turnover rates show wide variation, depending on the source of the data. One source suggests that turnover rates average about 45 percent per year for nursing homes (PANPHA, 2002) and about 10 percent for home health programs, while other data place average annual nursing home turnover at more than 100 percent. High rates of staff vacancies and turnover have negative effects on providers, consumers, and workers. Providers' costs of replacing workers are high; quality of care may suffer; and workers in understaffed environments may suffer higher rates of injury.

Pennsylvania, like most states across the nation, is facing a crisis regarding the shortage of direct care workers in long-term care. For example, more than 77 percent of the privately-operated nursing homes, the single largest sector of industry, reported staffing shortages. Twelve percent reported severe shortages.

To address this issue, the Pennsylvania Intra-Governmental Council on Long Term Care collected data and feedback from both workers and providers in the long-term care industry. Staffing shortages were categorized as recruitment-related and retention-related. Recruitment problems appeared to be much more sensitive to the local unemployment rates and more closely tied to the levels of competition for a more limited pool of available female workers between the ages of 25 and 54. Retention problems were related to higher levels of competition, principally wage competition, between local long-term care providers. Retention problems were more closely associated with the way providers operated their businesses. Some providers simply run their operations in a way that makes working conditions more attractive and as a result, have fewer problems with retention.

While the unemployment rate and labor pool are factors beyond the control of long-term care providers, employers can address issues associated with wages. The average entry-level wage rate was \$7.29 per hour. However, providers often are unable to pay higher wages because of the reduction of the reimbursement rate paid from their two primary payers: Medicare and Medical Assistance. Employers should recognize that

for many workers, a lower wage might be acceptable if there is a change in benefits or working conditions. Long-term care workers have identified a number of non-economic needs affecting recruitment and retention, such as a sense of respect and professionalism, proper training, better hours, access to child care, difficulty of work, emotional support and appreciation.

In 2002, then-Governor Mark Schweiker announced that more than 300 organizations statewide would receive \$33 million in state and federal funds to continue Pennsylvania's efforts to improve recruitment and retention of direct-care workers. These funds would support initiatives planned and developed by local counties and human-services providers to address problems of recruiting and retaining staff in their communities. The initiatives included training, recruitment, mentoring programs, job fairs, and salary incentives. The Department of Aging received \$3.4 million annually for the next three years to award grants to AAAs throughout the state. The AAAs are to work with the organizations that provide services to the elderly and the direct care workers themselves in using these funds.

Editor's Note: In 2003, Pennsylvania, through the Department of Aging, received a grant from the Robert Wood Johnson Foundation. The \$1.4 million grant will be used over three years for direct care worker training. The department will also use \$1.5 million in Intergovernmental Transfer funding to support best-practice demonstration projects and

conduct further studies on recruitment and retention initiatives.

Payment structure and potential funding changes

Misconceptions about payment for long-term care services abound. Older adults and their families, when confronted with the need for long-term care, often mistakenly believe that Medicare will pay. In 1997, only 12 percent of Medicare's expenditures were directed toward institutional long-term care services (National Citizens' Coalition for Nursing Home Reform, 2003). Medicare's skilled nursing facility (SNF) benefit does not cover most long-term care. Medicare will pay the cost of some skilled care in certain approved circumstances and the entire cost of care for the 20 days in a skilled nursing facility. For days 21 to 100, Medicare pays all but \$99 per day. After day 100, Medicare makes no payments for long-term care. Supplemental insurance, purchased by some Medicare recipients, generally does not pay for long-term care costs over 100 days. After Medicare's limited payment, individual resources must begin to cover the cost of care in a long-term care nursing facility (PANPHA, 2002).

In addition to its expenditures for institutional long-term care, Medicare spent approximately 10 percent of its budget on home health care, including hospice services, in 1997 (National Citizens' Coalition for Nursing Home Reform, 2003). Like the limited payment for individuals in a long-term care nursing facility, payment for home health care is limited. In order to be eligible for Medicare

home health benefits, an individual "must be homebound, under a doctor's care, and need part-time or intermittent skilled nursing care and/or physical or speech therapy" (Bergquist, 1999).

When an individual's resources are depleted, Medical Assistance begins to pay for long-term nursing care. Medical Assistance pays for the highest proportion of long-term nursing care for all types of facilities in Pennsylvania (PANPHA, 2002). The state Department of Public Welfare, in conjunction with the U.S. Department of Health and Human Services, established the guidelines for Medical Assistance eligibility. Individual eligibility determinations are made by the County Assistance Offices. Individuals receiving Medical Assistance funds for long-term care services, whether they are provided in a long-term care facility or through a home health care provider, are subject to the provisions of the Estate Recovery Program discussed earlier.

The Older Americans Act (OAA) provides financial support for home- and community-based services, such as congregate and home-delivered meals and some in-home assistance. Unlike the Medical Assistance program, funds provided through OAA may serve individuals of any income level, although the funds must be targeted to persons with the "greatest social or economic need" (AARP, 2003). The AAAs may also use these funds to support their ombudsman programs.

Beyond government funding for long-term care services, individuals often use their personal savings to pay for their care. According to data from the Pennsylvania

Department of Health, individual payments account for approximately 22 percent of nursing home care. (PANPHA, 2002).

While some policy makers have suggested private insurance as a way to finance long-term care, this funding mechanism has limitations. First, insurance industry data show that purchasers of long-term care insurance “are more likely to be married, more highly educated, and wealthier” (National Underwriter Company, 2002). Second, the Bureau of Labor Statistics reports only 7 percent of all full-time employees have the option of purchasing long-term care insurance. However, for blue collar and service workers, only 4 percent are afforded the opportunity to purchase a long-term care insurance policy (U.S. Bureau of Labor Statistics, 1997). Finally, according to the Agency for Healthcare Research and Quality, “under current medical underwriting practices, between 12 percent and 23 percent of Americans would be rejected if they applied for [long-term care] insurance at age 65. These figures rise to between 20 and 31 percent at age 75” (Agency for Healthcare Research and Quality, 2003). Thus, long-term care insurance may serve only a limited group of older Pennsylvanians.

The long-term care programs receiving financial support from the national government are subject to major changes during any administration. Policymakers often are pressured to revisit the central questions surrounding the provisions of long-term care services:

- Who receives the program’s benefits?

- What benefits will be provided?
- How will the program oversee the distribution of benefits? and
- What level of government should be responsible for administering the program? (Furrow et. al, 1997)

To address the crisis in providing public funding, principally for the Medicare and Medical Assistance programs, government at all levels has systematically reduced the payments to physicians and hospitals that treat Medicare and Medical Assistance program participants. It is widely acknowledged that Medicare and Medical Assistance have reimbursed health care providers less than the cost of treatment for more than a decade (Twentieth Century Fund, 2003). Long-term care providers face the same dilemma. In 1997, Congress repealed the “Boren Amendment” which required reimbursement for long-term care services to Medical Assistance recipients to be “reasonable and adequate to meet the costs which must be incurred by efficiently and economically operated facilities in order to provide care and services in conformity with applicable state and federal laws, regulations, and quality and safety standards” (Wiener and Stevenson, 1998).

Medicare and Medicaid reform again top the list for the 108th Congress. Reform efforts attracting public attention are focused on making prescription drugs more affordable for older adults (Rovner, 2003), while the American Medical Association and other organizations representing health care providers are lobbying for reform of the regulations affecting billing and appeals associated with Medicare claims (American

Medical Association, 2003).

The restructuring of the financial components of Medicare and Medical Assistance is likely to receive greater attention in the coming legislative session. A report released by the Centers for Medicare and Medicaid Services states that while Medicare spending growth has been reduced, principally due to reduced payments for physicians’ services, Medicaid costs were expected to grow at approximately 12 percent in 2002, with the growth of spending slowing to approximately 8.5 percent in 2012 (Heffler et. al, 2003). Experts, however, recognize that the Medicare Trust Fund will be financially solvent only until 2025 at best (Pear, 2000). Given the national government’s prospective inability to provide funding for even a limited amount of long-term care services, the states will bear an increasing burden to provide services for their older adults.

Conclusions and Recommendations

The Area Agencies on Aging are impacted by structural as well as external factors in providing services for those in need of long-term care. Structural factors include: differences in agency organization (public as compared to non-profit); geographic size of the region served; and proximity to an urban center.

First, agency organization affects the scope of services provided by the AAAs. Non-profit organizations have access to additional resources through grants and donations. Furthermore, non-profit organizations may hire additional staff to meet program needs.

Second, allocation decisions are affected by the geographic size of the area in question. For example, the Area Agency on Aging for Bradford-Sullivan-Susquehanna-Tioga counties is compelled to emphasize transportation services because of its size. This is not the case for AAAs in areas where mass transportation is more readily accessible, such as in Lawrence County.

Finally, AAAs located near urban centers have more services to access. The Southwestern Pennsylvania Area Agency on Aging benefits from its proximity to Pittsburgh and is able to offer consumers more choice in the services provided. The more rural counties included in this study have fewer organizational and individual providers of home- and community-based services.

External factors impacting the operation of the AAAs include labor market conditions and public policy initiatives to strengthen programs. The AAAs are constantly responding to labor market fluctuations. While it is uniformly recognized that a shortage of workers exists in the long-term care industry, labor market swings in rural areas adversely affect low-paying occupations more than commensurate changes in urban areas. Coupling the rapid growth of the senior population in the rural areas of this study with labor market shortages, it is apparent that the long-term care industry needs some assistance.

Public policy initiatives conceived to strengthen programs often produce the opposite effect when implemented. A prime example of this phenomenon is the initiation of the Estate Recovery

Program. While the purpose of the program is to recapture revenue to support home- and community-based services, individuals in rural communities are reluctant to accept these services because of their impact on their children's inheritance.

Despite these structural and external challenges, the 12 AAAs in this study are providing a multitude of home- and community-based programs for those in need of long-term care. The question is how to improve services in these areas.

Recommendation 1:
Conduct a feasibility study assessing whether non-profit organizations are a more effective model for providing home- and community-based services.

Three of the organizations included in the study, Aging Services, Inc. of Indiana County, the Southwestern Pennsylvania Area Agency on Aging, Inc., and Challenges: Options in Aging of Lawrence County, illustrate the success of the non-profit corporation model in providing long-term care services. Each of these organizations benefits from its structure as is evidenced by the creativity exhibited in providing services. Furthermore, each of these organizations, while receiving state support, has been able to attract grant monies to enhance services.

Alternatively, the public agency model promotes more accountability, an important consideration in light of the funds expended on long-term care services. However, the low levels of funding from county sources and bureaucratic

oversight may hinder the development of innovative community-based and in-home programs. While public agencies often had more long-term employees, they also expressed more concerns about having insufficient staff to support client needs.

Recommendation 2:
Develop incentives for service providers who locate in rural areas (defined as more than 75 miles from a major population center).

Just as the Department of Aging is developing initiatives to hire and retain long-term care workers, so too does the department need to work on attracting service providers to rural areas. In cooperation with the General Assembly, the Department of Aging could work to construct tax incentives to induce long-term care service providers to rural areas. Furthermore, the Department of Aging could work with organizational providers to meet the qualifications to become providers of PDA Waiver Services.

Recommendation 3:
Continue the Department of Aging initiative attempting to attract long-term care workers. Offer greater incentives in rural areas or labor markets with low levels of unemployment.

The Department of Aging initiative is a positive step in attracting long-term care workers. However, greater emphasis needs to be placed on rural counties and in labor markets with low levels of unemployment.

As is evidenced by the 233 individuals who provide "private

duty” services in the five counties in this study, an informal economy exists in the long-term care industry. By determining the reasons for the informal economy, the Department of Aging may find ways to attract even more long-term care workers. In addition to offering tangible benefits, organizational providers, with the assistance of the Department of Aging, need to demonstrate more clearly the altruistic benefits of working with individuals in need.

Recommendation 4:
Standardize the explanation of the Estate Recovery Program used by the Area Agencies on Aging.

The Estate Recovery Program presents a significant barrier to the acceptance of home- and community-based care, especially for rural residents whose principal asset is often their home and land. Since the Estate Recovery Program is federally mandated, the best approach to addressing issues of recovery is to standardize the explanation of the Estate Recovery Program used by the Area Agencies on Aging. The standardized explanation should parallel that used by nursing homes when explaining the Medical Assistance Program to their clients. The explanation must emphasize that the Estate Recovery Program made it possible for the Agency to provide services to clients today and consequently, clients must provide for the program’s continuation.

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