



U.S. Department of Health and Human Services
Assistant Secretary for Planning and Evaluation
Office of Disability, Aging and Long-Term Care Policy



PHYSICIAN PRACTICES IN NURSING HOMES: FINAL REPORT

April 2006

Office of the Assistant Secretary for Planning and Evaluation

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This report was prepared under contract #HHS-100-03-0028 between HHS's ASPE/DALTCP and the University of Colorado. For additional information about this subject, you can visit the DALTCP home page at http://aspe.hhs.gov/_office_specific/daltpc.cfm or contact the ASPE Project Officer, Jennie Harvell, at HHS/ASPE/DALTCP, Room 424E, H.H. Humphrey Building, 200 Independence Avenue, S.W., Washington, D.C. 20201. Her e-mail address is: Jennie.Harvell@hhs.gov.

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U.S. Department of Health and Human Services
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April 4, 2006

Prepared for
Office of Disability, Aging and Long-Term Care Policy
Office of the Assistant Secretary for Planning and Evaluation
U.S. Department of Health and Human Services
Contract #HHS-100-03-0028

The opinions and views expressed in this report are those of the authors. They do not necessarily reflect the views of the Department of Health and Human Services, the contractor or any other funding organization.

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EXECUTIVE SUMMARY

INTRODUCTION

The Assistant Secretary for Planning and Evaluation (ASPE) contracted with the University of Colorado Health Sciences Center (UCHSC) to examine and describe models of physician practices in nursing homes; the financing arrangements and payment rates associated with these models; and determine what is known about the impact of physician practice models on the quality of care received by nursing home patients and on the quality of care provided in nursing homes.

In the first phase of this project, the UCHSC completed a literature review related to physician practice patterns in nursing homes, including the: requirements related to such practices; extent to which medical schools prepare physicians to practice in nursing homes; level of physician practice and specialization in providing services in nursing homes; barriers to physicians practicing in nursing homes and innovative physician practice arrangements in nursing homes.

The second phase of the study, which is presented in this report, was designed to further explore several issues that were not adequately addressed in the literature. Using information learned during the first phase, discussions were held in nursing homes and with key stakeholders in certain areas of the country to better understand the use and impact of various physician practice arrangements in nursing homes. This report summarizes discussions with stakeholders throughout the country in an attempt to identify obstacles and promising approaches to successful physician practices in nursing homes; synthesizes themes that recurred during the discussions; presents issues for further consideration; and offers potential areas for future research on physician practice in nursing homes.

METHODS

A purposeful sample of eight facilities was selected for case studies of physician practice models. The objective of the purposeful sampling methodology was to select varied examples of physician practice models in a range of markets and facilities. No attempt was made to select a representative sample from which to draw statistical inferences.

Market, Facility and Practice Models of Interest

The literature review identified multiple market, facility and practice model characteristics related to access to and quality of nursing home physician care. Market characteristics included: (1) managed care penetration, (2) rural location, (3) geographic region, and (4) litigious environment. Facility characteristics included: (1) ownership and (2) size. Practice model characteristics included various types of physician

specialization in nursing home care including practices that: (1) emphasize geriatrics and teaching, (2) limit physician practice to only nursing home patients, (3) integrate mid-level providers, (4) limiting the number of physicians in the care of patients in one facility (including the use of closed panel physician groups), and (5) include a variety of other physician practice models.

Stakeholders of Interest

Stakeholders targeted for discussions in each nursing home included: (1) a physician, (2) the nursing home administrator, (3) the medical director, (4) the director of nursing, (5) a social worker, and (6) one stakeholder for each facility who was identified by other respondents as an employee who would add valuable information to the discussions because of their unique perspective on physician care in the facility. Once a facility agreed to participate, a representative from each of the vocational disciplines was contacted by e-mail, telephone or fax to arrange individual stakeholder discussions.

Creation and Administration of the Discussion Guides

Discussion guides (Appendix A) were created to assist interviewers gather information from stakeholders regarding physician practices in the selected nursing homes. The discussion guides focused on four areas: (1) qualifications and training of the practicing physicians and medical directors; (2) practice models and patterns used by physicians; (3) access to care associated with specific practice models; and (4) the quality of care provided in the practice models used in the facility. Six versions, one for each vocational discipline, of the discussion guides were created so that each respondent was asked a set of questions relevant to their vocational discipline.

RESULTS

Three themes emerged from the stakeholder discussions regarding physician practice in nursing homes including: (1) physician specialization in nursing home care; (2) benefits of mid-level practitioners; and (3) importance of information transfer.

Physician Specialization in Nursing Home Care

The form of physician specialization in nursing homes varied, but most stakeholders clearly valued models of care that permitted physicians to specialize in the care of nursing home residents. While the stakeholders did not have precise definitions for nursing home specialists, they generally defined physician specialists as those who spend a substantial portion of time in the delivery of nursing home care or have the majority of their patient care caseload in nursing homes.

The incentives to the physicians who specialize in nursing home care were described as: (1) a reduction in overhead expenses associated with maintaining an office practice among those who practiced exclusively in nursing homes; (2) an ability to

develop improved knowledge of regulations in nursing homes and effectively meet the needs of the nursing homes; (3) scheduling flexibility; and (4) the opportunity for long-term relationships with patients and families. Stakeholders felt that if medical students had a greater exposure to nursing home care during medical training, more physicians would select this career path. Based on the literature review, early exposure to the benefits of specializing in nursing home care can increase the number of physicians specializing in nursing home care.¹

Benefits cited by stakeholders regarding specialist nursing home physicians included: (1) greater accessibility of physicians to patients, family, and nursing home staff; (2) improved knowledge of and sensitivity by physicians to challenges faced by nursing homes (e.g., regulations regarding use of anti-psychotics); and (3) enhanced medical management of common syndromes faced by nursing home residents (e.g., falls, urinary incontinence, agitated behaviors associated with dementia). The literature review also suggested that selected outcomes are better among patients of physicians specializing in geriatric medicine.¹

Nursing home regulatory requirements are unique and unlike the requirements in other health care arenas. The respondents associated lack of knowledge about these regulations with negative effects on physician communication with the nursing staff, medication ordering practices and compliance with regulatory visits. Several respondents found the American Medical Directors Association (AMDA) certification program a valuable resource in the pursuit of information on various regulatory requirements such as the use of physical and chemical restraints and required intervals for physician visitations. Sources identified in the literature review supported early exposure during training as a strategy to increase physician experience and familiarity with nursing homes.^{2,3,4}

The stakeholders' concept of the best model of specialization differed; some stakeholders favored a mid-level provider-based model (e.g., using nurse practitioners (NPs) as is the practice in the Evercare model), others favored a closed physician practice model and still others preferred a model with physicians practicing independently in multiple facilities. The closed models provided a salary to the physicians in contrast to other models in which physicians obtained payments via billing Medicare Part B for physician services rendered to individual patients. In the literature review, selected outcomes (e.g., response to emergencies, hospitalization rates, satisfaction) were superior in mid-level provider and closed models compared to the traditional independent physician practice model.^{5,6,7}

The stakeholders differed in their opinion of how physicians should be compensated for the delivery of specialized nursing home care. Stakeholders who practiced in a model with physicians salaried by the nursing home agreed that this model afforded the physicians more time to devote to the care of the patients, but they recognized that payment to physicians under the salaried model could be less than in a model in which physicians bill Medicare Part B for their services.

Differences in opinion also were evident with regard to the ideal mixture of practice across settings of care. For example, one stakeholder felt it was essential for nursing home physicians to practice in outpatient clinics and hospitals and then follow patients from these settings to the nursing home to provide continuity of care. Others felt an office or hospital practice detracted from the physicians' ability to focus on nursing home patients because the physicians were often unavailable for calls during office hours and tended to see their nursing home patients as a last priority in evenings and on weekends. The non-physician stakeholders consistently reported difficulty communicating with physicians who care for only a very few nursing home residents because of the competing demands of physicians' clinic and hospital-based practices.

Nursing facility staff members uniformly reported a preference for physician practice models that involve regular and frequent presence in the facility. These physicians were described as having a better understanding of the pressures faced by nursing homes and improved relationships with the nursing staff and interdisciplinary teams. Social workers valued models that allowed the physicians to become nursing home specialists and respond quickly to emergency calls. Staff members, and nursing home residents and their families, uniformly were pleased with working with nursing home physician specialists. No patterns in preferences for specific models of care were observed consistently across facility types.

Although the evidence is limited, there is some literature to support that specializing in the care of patients in one care setting improves quality of care and reduces costs. For example, patients who are cared for by physicians who specialize in the hospital setting, have lower mortality rates and reduced hospital costs.² The literature also suggests that physicians who specialize in nursing home care are on-site at nursing homes more frequently, have quicker response times to emergencies, lower hospitalization rates, and reduced use of medications.^{7,8}

Stakeholders also alluded to the difficulty researchers may have in determining whether or not specialization results in better care. For example, if one utilizes a higher frequency of lab tests as an indicator of good medical care, there may be factors other than clinical acumen guiding the volume of tests. On one hand, a non-nursing home specialist may order more tests because they are not in the facility to perform an assessment and must instead rely heavily on lab tests to substitute for a clinical examination. Alternatively, a nursing home specialist physician may order more tests than non-nursing home specialists, in part, because he/she are concerned about lawsuits if tests are not ordered to support their clinical assessments. Similarly, one stakeholder commented that more visits from practitioners increased the volume of orders but it is unknown whether or not an increase in orders results in improved care. Thus, future investigations regarding the quality of care provided by specialist versus non-specialist nursing home physicians should use caution in the design of outcome variables.

Increasing Use of and Desire to Work with Mid-Level Practitioners

The literature review and most respondents indicated that mid-level practitioners have the potential to increase the quality of care provided to nursing home residents and provide an important service in nursing home physician practice models. Respondents indicated that operating an efficient, large nursing home medical practice is not possible without the use of mid-level practitioners. Mid-level practitioners were described as enabling physicians to provide more efficient care because of their ability to respond quickly to urgent care needs.

Current Medicare policy permits mid-level practitioners to alternate visits with physicians. However, a concern expressed by several respondents was that physicians relied too heavily on the mid-level practitioners and participated less in the care of patients when a mid-level practitioner was involved.

An additional concern expressed by respondents and reinforced by the literature was that while the overall supply of NPs has increased in the past decade, there are not enough geriatric-trained mid-level practitioners to meet the demand for these practitioners in nursing homes.^{8,9} Reasons for this shortage are not well understood, but they may parallel the reasons cited in the literature and offered by respondents regarding the lack of geriatric-trained physicians (e.g., minimal exposure to nursing homes during training).

Information Exchange -- Knowledge About Nursing Home Operations

Stakeholders and the literature review suggest the need for enhanced communications and/or information exchange between physicians and nursing home staff, across settings of care and across providers of care (e.g., communications among physicians, nursing homes, and laboratories).¹⁰

Issues and requirements that, in some instances, are unique to the nursing home setting and in other instances common across the health care continuum characterize medical service delivery in nursing homes. Persons treated in nursing homes often are severely functionally and cognitively impaired and/or medically complex, requiring intervention by interdisciplinary teams with substantial family/informal caregiver involvement.^{11,12,13} The literature provides evidence that transitions to and from nursing home care are a common occurrence and a major source of medical errors in relation to medication administration, advanced care directives, allergies, and delivery of essential services.¹⁴ An AMDA survey of 3,000 sequential admissions to skilled nursing facilities from 25 different hospitals found the following: 22% of transfers had no formal summary of information; legible summaries were available only 56% of the time; secondary diagnoses were missing in 30% of transfers; test results were omitted in 31%-67% of transfers, advance directives and code status were absent in 81% of transfers; and a legible phone number for the transferring physician was present in only 33% of transfers.¹⁵

The stakeholders also expressed similar concerns with respect to transitions from hospitals to nursing homes. They noted that transferring accurate medical information from one care setting to another is time-consuming and often inaccurate. This is because physicians often are not caring for patients across care settings, and there is no standardized process or standard set of information transferred across care settings to communicate health information. As observed by the stakeholders, nursing homes often are separated geographically from hospitals, diagnostic services, and physician offices, creating communication barriers that contribute to medical errors. A common theme that emerged from discussions with stakeholders was the need for physicians to receive accurate and complete information regarding nursing home patients. Information transfer between hospital and nursing home stays were described as cumbersome and wrought with inaccurate and incomplete transfer of information. In most cases, the nursing facilities did not have computerized health information beyond the software used to record information for the Minimum Data Set. All stakeholders agreed that electronic medical records would vastly improve quality of care by reducing the inefficiencies involved with duplicating documentation that has occurred in other care settings and tracking down information.

ISSUES REQUIRING FURTHER CONSIDERATION AND FUTURE RESEARCH

The case presentations (Appendix B) provide examples of facilities with varied physician practice models and the issues related to each of these models. Several of these models offer promising approaches for improving physician care in nursing homes. This information could be useful when considering ways to promote effective and efficient medical service delivery to nursing home residents, to researchers in designing future studies examining physician practices in nursing homes, and to nursing homes and physicians in designing and implementing effective efficient physician practice models in nursing facilities.

Issues Requiring Further Consideration

Several overarching issues that arise from the literature review and stakeholder discussions that merit further consideration include availability of mid-level providers in long-term care (LTC). The literature review and stakeholder informants consistently suggested that mid-level providers are useful in extending medical services to nursing home residents and in promoting higher quality medical care to nursing home residents. However, these sources also discussed the limited supply of these mid-level providers. Other issues included physician training in geriatrics and nursing home care; and the need for incentives for enhancing physician care through pay-for-performance.

Availability of Mid-Level Providers in Long-Term Care

One strategy that has demonstrated success in attracting advanced practice nurses to LTC is the teaching nursing home concept in which schools of nursing

establish affiliations with LTC facilities providing an advanced practice degree program for nurses with an emphasis in LTC. Funding specialty and advanced practice internship and residency programs for post degree recipients may also increase the availability of advanced practice nurses to nursing home care and help to provide a career ladder for nurses interested in positions of greater responsibility.

Physician Training in Geriatrics and Nursing Home Care

Strategies to stimulate physician practice in nursing homes may include modifications of the Medicare Graduate Medical Education program to provide direct and indirect funds to teaching hospitals in exchanges for placing an emphasis on training in nursing home care and/or geriatrics. Another approach may be to modify Medicare physician payment rules/methods to encourage physicians to provide services in nursing homes. Public Health Service training grants may also be structured in a manner that encourages medical education in geriatrics and nursing home care. Favorable student loan repayment programs for physicians who devote a significant proportion of their practice to nursing home care may also be established. Medical education could also incorporate exposure to nursing home patients for all internal medicine and family practice physician training programs.

The literature indicated few physicians are trained to provide care in nursing homes yet the literature and stakeholder informants indicate that when appropriately trained in the care of nursing home residents, physicians have an ability to effectively manage the frail, elderly population and improve outcomes. Stakeholders suggest that physicians who specialize in nursing home care are more proficient in understanding nursing home regulations and therefore are better able to respond to the medical needs of patients. However, the limited supply of physicians who are adequately trained to care for nursing home patients remains a challenge.

Incentive Payments for Medical Practices in Nursing Homes

Increasingly, purchasers of health care are interested in value-based purchasing. Recently legislation has been enacted to establish various pay-for-performance incentive programs to promote specific outcomes for physician practices. However, pay-for-performance incentive programs do not address clinically relevant outcomes for the frail institutionalized elderly.

Future Research

Currently, research is not available on features identified by stakeholders as important components of nursing home physician practice models. Specifically, the literature does not quantitatively or qualitatively address: (1) the efficacy of nursing home specialization, (2) effective strategies for information exchange between nursing homes and physicians or (3) methods to study physician payment incentives in nursing homes. Study designs are proposed for these topics. Recommendations related to specific research activities that would advance our knowledge related to physician

practice in nursing homes include: (1) physician specialization in nursing home care and its impact on quality and costs; (2) health information transfer using technology across providers and settings when caring for nursing home patients; and (3) pay-for-performance incentives for physicians providing nursing home care.

Physician Specialization in Nursing Home Care

To study the effect of physician specialization in nursing homes an investigation could determine the extent to which quality indicators, influenced by physician practice, and avoidable hospitalizations are associated with the degree to which: (1) nursing homes are staffed by physicians who spend the majority of their practice caring for nursing home care patients (facility-level); and (2) a physician's practice is devoted to caring for nursing home residents (physician-level).

Health Information Transfer

Research could identify the issues that support or create barriers for information exchange and strategies that could facilitate information exchange, including electronic information exchange. The investigation would involve a literature review, stakeholder discussions and case studies examining how LTC organizations receive information, what information they receive when they serve patients that are treated by physicians and in hospitals that have the capacity to exchange health information electronically, and the factors that promote or inhibit electronic information exchange. ASPE is funding a study on health information exchange with post-acute and LTC settings.

Pay-for-Performance

A study could be developed under either Section 646 of the Medicare Modernization Act to establish a pay-for-performance demonstration program or, under an expanded demonstration program, to create physician incentive payments to promote high quality medical management by physicians and/or physician practice groups that include physician extenders on behalf of medically fragile nursing home patients. In developing pay-for-performance measures for nursing home care, the unique characteristics of nursing home residents and the environment of the nursing home must be taken into consideration. Such measures will apply specifically to the care of nursing home residents and not to a physician's outpatient population.

A study to pay for physician performance in skilled nursing facilities and nursing homes could test the effects of incentives for physicians (and their mid-level providers) to play a more active role in the care of their skilled nursing facility and nursing home residents. Process performance measures for physician and mid-level provider care in nursing homes could include timeliness of visits, responsiveness to phone calls from nursing home staff, and transfer of necessary information between a physician and nursing home staff. Outcome performance measures would need to target aspects of nursing home care over which the physician has the most influence. For example, use

of unnecessary or inappropriate medications, untreated depression and pain, and rates of potentially avoidable hospitalizations might be considered.

Medication data available under the Medicare Part D program could be used to evaluate physician prescribing for nursing home and skilled nursing facility residents and whether unnecessary medications or inappropriate medications were used. Hospitalization for potentially avoidable causes, such as urinary tract infections, respiratory infections, sepsis, wound infections, and conditions such as congestive heart failure where monitoring and early response might avoid the need for hospitalizing a resident, are potential performance measures for physician care. However, physicians are not solely responsible for hospitalization of nursing home residents, and thus these measures should be risk adjusted for resident as well as facility characteristics that research has found to be associated with preventable hospitalization rates (such as nursing home staffing).

Following standard treatment approaches for problems such as pain and depression also can be used as physician performance measures. If such conditions have been identified, treatment is appropriate. However, for some conditions following standard treatment guidelines typically used in outpatient medicine may not be the most appropriate treatment intervention for the elderly nursing home patient.

I. INTRODUCTION

PURPOSE

The Assistant Secretary for Planning and Evaluation (ASPE) contracted with the University of Colorado Health Services Center (UCHSC) to examine and describe models of physician practices in nursing homes; the financing arrangements and payment rates associated with these models; and determine what is known about the impact of physician practice models on the quality of care received by nursing home patients and on the quality of care provided in nursing homes. In addition, the UCHSC was asked to advance research designs that could be used to better understand major issues that emerge with different physician practice arrangements in nursing homes.

In the first phase of this project, the UCHSC completed a review of the literature related to physician practice patterns in nursing homes, including:

- Federal, state, and other requirements related to such practices;
- The extent to which medical schools and other programs prepare physicians to practice in nursing homes;
- The extent to which physicians practice and specialization in providing services in nursing homes;
- Barriers to physicians practicing in nursing homes including reimbursement rates, scope of non-reimbursed activities, and impact on malpractice premiums;
- Alternative physician practice arrangements in nursing homes in Medicare fee-for-service and managed care, including the use of physician extenders; and
- The impact of such arrangements on quality and costs.

The second phase of the study involved case studies to further explore several issues that were not adequately addressed in the literature including the:

- Amount, duration, and scope of physician (and/or non-physician provider) visits to nursing homes;
- Perceived impact of physician (and/or non-physician provider) visits to nursing homes;
- Any issues/concerns that arise from the physician practice models and financing arrangements;
- Impact of physician services on the medical care of residents; and
- Use of health information technology (HIT) (including electronic medical records) to support information exchange between physicians and clinicians practicing in hospitals (and other settings) and clinicians in nursing homes.

BACKGROUND

Changes in Medicare payment policy (e.g., implementation of the acute care inpatient prospective payment policy) and in the availability of long-term care (LTC) alternatives (e.g., the growth in the assisted living industry) have led to a nursing home population that is increasingly frail and medically complex.^{16,17} With almost two million Americans currently residing in nursing homes and an expected increase to almost five million by 2030, the need for physicians to practice in nursing homes will increase dramatically.¹⁶

Physicians are responsible for the medical care for all nursing home residents. The increase in medical complexity of nursing home residents suggests the need for greater involvement of physicians to oversee medical care. However, the literature provides limited information about specific models for the delivery of medical care to nursing home residents that will help meet the needs of a growing and increasingly medically complex and frail nursing home population.

Federal regulations specify that physicians oversee the medical care for all residents of nursing homes and that they participate in the design of care plans for nursing home residents based upon the residents' current clinical conditions. Physicians are also required to evaluate and manage new medical conditions or symptoms. How physicians provide such oversight is not well described in the literature. The few studies available on physician practices in nursing homes suggest that physician presence is limited and that the majority of nursing home visits are made by a limited number of physicians.³ In a 1997 survey completed by the American Medical Association, most physicians reported spending no time in treating nursing home patients (77%); and among physicians who did practice in nursing homes, most reported spending two hours or less per week caring for their nursing home patients.³ This lack of physician presence is reflected in many of the individual resident reports of dissatisfaction. Unattended symptoms, which include the failure to provide physician services for a change in condition, was the tenth most common complaint in 2000, up 44.4% from 1996.¹⁸

Against the backdrop of sicker patients needing more physician care is a physician workforce in nursing home care that may be shrinking. In a survey of physicians who provided nursing home care, 50% indicated that they planned to decrease their involvement in the care of nursing home residents.¹⁹ Physicians planning to reduce their nursing home caseloads cited poor reimbursement by Medicare Part B for their services; a high volume of telephone calls from the nursing homes; onerous paperwork; and lack of physician authority in nursing homes as reasons for leaving the nursing home environment.¹⁹

Section II of this report describes the methods that were used to select facilities and the market areas of interest. The Methods Section also describes the types of stakeholders with whom discussions were held and the type of information that was

solicited from these stakeholders. Appendix A includes a copy of the discussion guides used for these discussions.

Section III provides an overview of the findings that emerged from the case study and discusses the three primary issues that arose during discussions with informants. Appendix B summarizes the findings for each facility included in this study.

Section IV of this report discusses the issues and areas for possible future research related to physician practice in nursing homes.

III. METHODS

A purposeful sample of nursing facilities in selected markets was targeted to examine various physician practice models. No attempt was made to select a representative sample from which to draw statistical inferences.

Eight facilities were selected for case studies of physician practice models. This section describes methods used to: (1) select market, facility and practice model characteristics, (2) select stakeholders, and (3) create and administer the discussion guides. A summary of the facility and market characteristics of each selected facility can be found in Table 1.

SELECTION OF MARKET, FACILITY AND PRACTICE MODEL CHARACTERISTICS

The literature review identified multiple market, facility and practice model characteristics related to access to and quality of nursing home physician care that we considered in selecting facilities and stakeholders. In addition, the Technical Advisory Group (TAG) members reviewed these characteristics and described innovative physician practice models to target.

The following market characteristics were considered in selecting sites:

- Managed care penetration -- The literature suggested differences in access to and quality of physician services in nursing homes related to coverage by a managed care or fee-for-service plan. Further, managed care has disparate incentives for nursing homes due to the nature of capitated payments. We examined nursing homes in two different managed care environments. First, a nursing home that was populated primarily with health maintenance organization (HMO) patients. Secondly, a nursing home that had a significant proportion of patient in Evercare, a specialized capitated payment model designed specifically for the institutionalized elderly.
- Rural location -- Concerns identified in the literature and raised by the TAG regarding access to care and the availability of specialized nursing home/geriatric physicians led us to consider facilities in rural/semi-rural communities.
- Geographic region -- The majority of published literature on physician practice in nursing homes relies on research in two states, New York and California. While these are the most populous states, we intentionally chose facilities spread across the entire United States.

- Litigious environment -- Recent literature suggests along with increases in the price of medical malpractice insurance, physicians are more likely to be listed as defendants in lawsuits against nursing homes than previously reported. The availability and cost of malpractice insurance for physicians who practice in nursing homes has been identified as a concern among physicians and so we targeted a facility in Florida, a state with high rates of malpractice claims.

The following facility characteristics were considered in selecting sites:

- Ownership -- We intentionally selected facilities to represent the three primary types of nursing home ownership: non-profit, for-profit, and government owned.
- Size -- Nursing homes vary widely in the number of residents they house and we attempted to choose nursing homes with disparate bed sizes.

Both the literature and TAG members suggested the potential for a relationship between physician specialization and the quality of nursing home care. Specialization was often defined in different ways. Practice models were identified that represented the primary definitions of specialization. The following types of practice model specialization in nursing home care were considered in selecting sites:

- Geriatrics/teaching -- This practice model placed a strong emphasis on teaching and education in geriatrics. Three facilities were selected that use this model.
- Nursing home only practice -- This model is one in which the nursing home is served by a physician practice devoted entirely to nursing home care. We included one facility in which the practicing physicians care only for nursing home patients.
- Limiting physician practitioners -- A prior research study suggested closed panel facilities (i.e., facilities that generally limit attending physicians to those that are salaried by the facility) provided higher quality care. Alternatively, some facilities limit physician privileges to a small set of community physicians. One facility that employs its own physicians and another facility that limits the number of attending physicians were included in this study.
- Other varied physician models -- In this model many physicians practice in the facility and each physician cares for a panel of residents ranging from a few to dozens of residents. No physician practice is devoted entirely to nursing home care.

Participants of the project TAG provided referrals for two of the study sites with the characteristics of interest. Subsequent referrals for study sites with the market, facility and/or practice model characteristics of interest came through LTC practitioner contacts and Internet research on specific models of physician service delivery in nursing homes.

SELECTION OF STAKEHOLDERS

Stakeholder Disciplines

We identified stakeholders in each nursing home representing five specific disciplines and one variable staff member. Based on input from the TAG, each discipline was chosen based upon their participation in or unique view on the physician/patient relationship in nursing homes. Stakeholders included:

1. A physician with patients in the nursing home.
2. The nursing home administrator who is responsible for providing privileges for physicians to practice in their nursing home and also has final responsibility for care received by their residents.
3. Medical directors who, often practice as attending physicians in the nursing home they serve. They may also provide medical care that supplements the care from a patient's primary physician, or may be responsible for disciplining physicians who do not meet an acceptable level of care.
4. The director of nursing who observes physician practice and may have the most direct contact with physicians and closest observation of their patient interactions.
5. Social workers who may receive any complaints patients have regarding their physician care and may act as liaisons between physicians and patients or family members.
6. A stakeholder for each facility was identified by other respondents as an employee who would add valuable information to the discussions because of their unique perspective on physician care in the facility. These included nurses, nurse practitioners (NPs), a dietitian, an admission coordinator and staff development personnel. The study team designated these respondents as "wild card" employees.

Stakeholder Recruitment

Once investigators were able to confirm a facility's participation, individual stakeholders were identified and discussions were arranged. Stakeholders were contacted by e-mail, telephone or fax. Limitations to the recruitment process included non-response by several employees and low levels of technology available in facilities. Many facilities did not have e-mail addresses for their employees or voicemail boxes for individual staff members.

In cases where stakeholders in a facility were not available or willing to participate in the discussion, we sought an alternate from the facility. Specifically, in Facility 7, the

nurse manager had extensive knowledge about a variety of physician practice patterns within the facility and was substituted for the physician interview in this facility.

In the cases where a suitable replacement was not available within the original facility being studied, we either located a participant who worked in a facility with the characteristics of interest or did not have responses from these respondent groups. Specifically:

- In Florida, a physician from the original study facility (Facility 5) was not available. A topic of interest in this facility was how nursing home physician practice patterns are affected by living in state with a high rate of lawsuits directed against nursing homes. As a replacement, we recruited another physician who practices in nursing homes in Florida for the discussion.
- In Facility 1 (a facility in North Dakota), attempts to contact the medical director and a physician respondent in this facility were unsuccessful. Thus, a medical director and physician respondent are not included in responses from the Facility 1. Discussions with the remaining respondents are retained in this report because these respondents add important information regarding nursing home physician practices in semi-rural regions.

CREATION AND ADMINISTRATION OF THE DISCUSSION GUIDES

Creation of Discussion Guides

Discussion guides were devised to gather information pertaining to physician practices in the selected nursing homes (Appendix B). To create the discussion guides, each of the investigators drafted sample questions thought to be relevant to and illustrative of physician practice patterns in nursing homes. The identified issues were then compared to identify major themes, redundancies, and crosscutting themes. Specifically, the discussions sought information in four areas: (1) qualifications and training of the practicing physicians and medical directors; (2) practice models and patterns used by physicians; (3) access to care associated with specific practice models; and (4) the quality of care provided in the practice models used in the facility.

Two types of discussion guides were then created to assist interviewers gather a consistent set of information from each stakeholder. The pre-discussion guide asked stakeholders' about the length of time they had worked in the nursing home industry, the training required to work in their current position and several questions about characteristics of the facility in which they worked. Stakeholders were instructed to complete the pre-discussion guide and fax it back to the investigators.

Discussion guides used during telephone discussions with the selected stakeholders addressed issues relevant to the vocational discipline of the stakeholder. For example, the discussion guide for the director of nursing asked questions that would

only be relevant to his/her interactions with physicians as the director of nursing, whereas the discussion guide for a social worker asked a different set of questions relevant to the interactions social workers have with physicians in nursing homes. The wildcard discussion guide was designed after each of the specific discussion guides was designed. Investigators included a variety of issues that were relevant to experience with physician practice patterns. Because the wildcard could be any staff member working at the facility with knowledge of physician practice patterns, no questions were specific to any one discipline.

The discussion guides were pilot tested with each of the selected stakeholder disciplines at a local nursing facility located in Denver, Colorado, and were revised based on recommendations that emerged from the pilot. Some examples of revisions to the stakeholder discussion guides included placing questions regarding credentials and facility description in the discussion guide completed before the actual discussion. This was done to individually tailor each discussion, enable research staff to be more personable with the stakeholders, and ensure that questions were not repeated. Pilot testing resulted in including a statement at the beginning of each discussion to provide study background and, funding information, and a brief summary of anticipated results. Additionally, a clause was added that stated each discussion would be recorded for accuracy of transcription. In addition, some items that were identified as irrelevant or lacking in clarity were deleted or clarified. Staff in ASPE then reviewed the stakeholder discussion questions for approval.

Administration of Discussion Guides

After initial contact with the stakeholders was made, the study abstract was shared along with the pre-discussion guide. Once the stakeholder returned the completed pre-discussion guide, a telephone discussion was scheduled. (Copies of the stakeholder pre-discussion and discussion guides are presented in Appendix A.) Telephone discussions lasted 30-90 minutes. During the discussions, no attempt was made to reconcile conflicting information from different respondents selected for the targeted facility.

STUDY LIMITATIONS

The limited number of sites and difficulties encountered in the process of recruiting stakeholders limit the extent to which one can generalize these findings to all nursing homes; however, several consistent themes emerged. As in much qualitative research this was a purposeful sample to examine specific practice models and markets. Thus, the study sites may be systematically different from the average nursing home due to both the sampling criteria and the selection bias between nursing homes that agreed to participate and those that declined. Primary reasons that facilities refuse to participate in the study included time and availability of staff; abundance of paperwork; facility in the middle of the survey process; key staff in training; and the belief that the facility would have little or no beneficial information to add to the study.

TABLE 1. Facility, Market and Physician Practice Model Characteristics

	Nursing Home 1: Minot, ND	Nursing Home 2: Alma, MI	Nursing Home 3: San Diego, CA	Nursing Home 4: Durham, NC	Nursing Home 5: West Palm Beach, FL	Nursing Home 6: New Hope, MN	Nursing Home 7: Rochester, NY	Nursing Home 8: Houston, TX
MARKET CHARACTERISTICS								
High Managed care penetration rate (>50% enrollment)			X			X		
Rural	X	X						
Geographic Regions (CMS Region)	VIII	V	IX	IV	IV	VI	II	VI
Litigious environment					X			
FACILITY CHARACTERISTICS								
Ownership	For-profit, Corporation	Non-profit, Private	For-profit, Corporation	Non-profit, Corporation	For-profit, Corporation	Non-profit, Corporation	Government, County	For-profit, Partnership
Size (average 100-120)	Average	Above Average	Above Average	Above Average	Average	Very Large	Very Large	Average
PHYSICIAN SPECIALIZATION PRACTICE MODELS								
Geriatrics/teaching		X		X			X	
Nursing home only								X
Closed Panel Model -- Staff Physicians							X	X
Limit Number of Community-Based Physicians				X				
A variety of other physician practice models	X		X		X	X		

III. RESULTS

This project involved discussions with stakeholders from eight nursing facilities representing different physician practice models. The physician practice models reported at each of the targeted facilities appear to be shaped by several factors, including whether the facility is located in an area with a high managed care penetration rate; the facility's geographic location (i.e., rural/urban); and the pervasiveness of liability concerns in the selected facility. The summary of discussions for each stakeholder as the selected facilities is found in Appendix B.

The case presentations provide examples of facilities with varied physician practice models and the issues related to each of these models. This information can be used when considering ways to promote effective and efficient medical service delivery to nursing home residents; researchers in designing future studies examining physician practices in nursing homes; and by nursing homes and physicians in designing and implementing effective efficient physician practice models in nursing facilities.

CHARACTERISTICS OF FACILITIES AND PHYSICIAN RESPONDENTS

Facility Characteristics

The facilities varied in the number of physicians who care for patients, the amount of time each physician spends in the facility and the number of patients followed (Table 2). In the facilities selected for this case study, the number of beds ranged from 106 to 566 and the number of physicians seeing patients at each selected facility ranged from two to 50 physicians. One facility sent laboratory studies and patients who needed X-rays to a hospital located one block from the facility; however, the majority of facilities used a mobile service to perform laboratory studies and X-rays in the facility. None of the facilities reported using a fully integrated electronic medical record. Two of the facilities had relationships with a university training program, and each facility had a unique combination of skilled nursing, custodial, intermediate, and specialized care units (e.g., dementia and palliative care). While only one facility had been involved in a lawsuit, all of the facilities were concerned about the growing number of legal cases against nursing homes. All facilities utilized their medical directors to provide some level of direct physician care, at least in emergencies.

Generally, facilities reported that the medical director's role was primarily as a consultant, but also included quality improvement, quality assurance, training, and acting in a dual role as an attending physician. Four facilities consulted regularly with their medical directors on patients for whom the medical director was not the attending physician. All of the medical directors had an added certificate of qualification in geriatrics, and six of the eight medical directors were also certified medical directors.

Seven facilities reported that mid-level practitioners (such as physician assistants (PAs) and NPs) care for patients in the facility either as salaried employees of the nursing home or in partnerships with physicians. The one facility that did not have a mid-level provider is part of a corporation that is promoting the hire of mid-level providers as full-time employees and is anticipating adding at least one mid-level provider in the near future.

Physician Practice Characteristics

Physician characteristics and practice patterns in the nursing homes were very diverse (Table 3). The percentage of time physicians devote to the care of nursing home residents ranged from 10% to 95% of their medical practice, and the average number of hours the physicians care for nursing home patients each week varied from five to 60 hours per week. The number of nursing homes served by each physician ranged from three to ten and the physicians interviewed care for up to 300 nursing home residents regularly.

The characteristics of the facilities and physician respondents for this study are presented in Table 2 and Table 3.

MAJOR THEMES

Three issues emerged across stakeholder discussions regarding physician practice in nursing homes. These issues were the:

1. Value of physician specialization in nursing home care;
2. Benefits of mid-level practitioners; and
3. Importance of information transfer.

These issues are discussed below.

Physician Specialization in Nursing Home Care

The form of physician specialization in nursing homes varied, but most stakeholders clearly valued models of care that permitted physicians to specialize in the care of nursing home residents. The stakeholders did not have precise definitions for nursing home specialists. However, they generally defined physician specialization as physicians who spend a substantial portion of their time in the delivery of medical care to nursing home residents or have the majority of their patient caseload in nursing homes.

The benefits to the physicians who specialize in nursing home care were described as: (1) a reduction in overhead expenses associated with maintaining an office practice; (2) an ability to develop improved knowledge of regulations in nursing homes and effectively meet the needs of the nursing homes; (3) scheduling flexibility; and (4) the

opportunity for long-term relationships with nursing home patients and families. Stakeholders felt that if medical students had a greater exposure to nursing home care during medical training, more physicians would select this career path. Based on the literature review, early exposure to the benefits of specializing in nursing home care can increase the number of physicians specializing in nursing home care.¹

Other benefits cited by stakeholders regarding specialist nursing home physicians included: (1) accessibility of medical staff to patients, family and nursing home staff; (2) improved knowledge of and sensitivity by physicians to challenges faced by nursing homes (e.g., regulations regarding use of anti-psychotics); and (3) enhanced medical management of common syndromes faced by nursing home residents (e.g., falls, urinary incontinence, agitated behaviors associated with dementia).

Nursing home regulatory requirements are unique and unlike the requirements in other health care arenas. The respondents associated lack of knowledge about these regulations with negative effects on physician communication with the nursing staff, medication ordering practices and compliance with required regulatory visits. Several respondents found the American Medical Directors Association (AMDA) certification program to be a valuable resource for information regarding regulatory requirements such as the use of physical and chemical restraints and required intervals for physician visitations. Sources identified in the literature review supported early exposure during medical training as a strategy to increase physician experience and familiarity with nursing homes.^{2,3,4}

The model of physician specialization preferred by stakeholders varied. Some stakeholders favored a model that coupled physicians with mid-level providers (i.e., Evercare), others favored a closed physician practice model and still others preferred a model where physicians practice independently in multiple facilities. The closed models provided a salary to the physicians in contrast to other models in which physicians independently billed Medicare Part B. In the literature review, selected outcomes were superior in mid-level provider and closed models compared to the traditional independent physician practice model.^{5,6,7}

Proponents of the salaried-model indicated that this model afforded the physicians more time to devote to the care of the patients, but could be less financially lucrative to physicians in comparison to a model in which physicians independently bill Medicare Part B for their services. Stakeholders also reported that as the number of physicians practicing in a facility increased, communication challenges between the nursing home and attending physicians increased. As the number of physicians increase nursing home staff must remember and use each physician's preferred method of communicating (e.g., fax, telephone, e-mail, etc.) for different types of medical information (e.g., making available lab results, general medical questions, emergent situations).

Differences in opinion also were evident with regard to the ideal mixture of physician practice across settings of care. For example, one stakeholder felt it was

essential for nursing home physicians to practice in outpatient clinics and hospitals and then follow patients from these settings to the nursing home to provide continuity of care. Others felt an office or hospital practice detracted from the physicians' ability to focus on nursing home patients because the physicians were often unavailable for calls during office hours and tended to see their nursing home patients as a last priority in evenings and on weekends. The stakeholders consistently reported difficulty communicating with physicians who care for only a very few nursing home residents because of the competing demands of their clinic and hospital-based practices.

Facility staff members uniformly reported a preference for physician practice models that involve regular and frequent physician presence in the facility. These physicians were described as having a better understanding of the pressures faced by nursing homes and improved relationships with the nursing staff and interdisciplinary teams. Social workers valued models that allowed the physicians to become nursing home specialists and respond quickly to emergency calls. Staff members, and nursing home residents and their families, uniformly were pleased with working with nursing home physician specialists. No patterns in preferences for specific models of care were observed consistently across facility types.

Although the evidence is limited, there is some literature to support that specializing in the care of patients in one care setting improves quality of care and reduces costs. For example, patients who are cared for by physicians who specialize in the hospital setting, have lower mortality rates and reduced hospital costs.² The literature also suggests that physicians who specialize in nursing home care are on-site at nursing homes more frequently, have quicker response times to emergencies, lower hospitalization rates and reduced use of unnecessary medications.^{7,8}

Stakeholders also discussed the difficulty researchers may have in determining whether or not specialization results in better care. For example, if one utilizes a higher frequency of lab tests as an indicator of good nursing home care, there may be factors other than clinical acumen guiding the volume of tests. On one hand, a non-nursing home specialist may order more tests because they are not in the facility to perform an assessment and must instead rely heavily on lab tests to substitute for a clinical examination. Alternatively, a nursing home physician may order more tests than non-nursing home specialists, in part, because he/she are concerned about lawsuits if tests are not ordered to support their clinical assessments. Similarly, one stakeholder commented that more visits from practitioners increased the volume of orders but it is unknown whether or not an increase in orders results in improved care. Thus, future investigations regarding the quality of care provided by specialist versus non-specialist nursing home physicians should use caution in the design of outcome variables.

Increasing Use of and Desire to Work with Mid-Level Practitioners

The literature review and most respondents indicated that mid-level practitioners have the potential to increase the quality of care provided to nursing home residents and provide an important service in nursing home physician practice models.

Respondents indicated that operating an efficient, large nursing home medical practice is not possible without the use of mid-level practitioners. Mid-level practitioners were described as enabling the delivery of more efficient care because of their ability to respond quickly to urgent care needs. However, a concern expressed by several respondents was that physicians relied too heavily on the mid-level practitioners and participated less in the care of patients when a mid-level practitioner was involved.

An additional concern expressed by respondents and reinforced by the literature was that there are not enough geriatric-trained mid-level practitioners to meet the demand for these practitioners in nursing homes.⁸ Reasons for this shortage are not well understood, but they may parallel the reasons cited in the literature and offered by respondents regarding the lack of geriatric-trained physicians (e.g., minimal exposure to nursing homes during training).

Information Exchange -- Knowledge About Nursing Home Operations

Stakeholders and the literature review suggest the need for enhanced communications and/or information exchange between physicians, nursing home staff, and across settings and providers of care (e.g., communications among physicians, nursing homes and laboratories).¹⁰

Medical service delivery in nursing homes is characterized by issues and requirements that, in some instances, are unique to the nursing home setting and in other instances common across the health care continuum. Persons treated in nursing homes often are severely functionally and cognitively impaired and/or medically complex, requiring intervention by interdisciplinary teams with substantial family/informal caregiver involvement.^{11,12,13} The literature provides evidence that transitions to and from nursing home care are a common occurrence and a major source of medical errors in relation to medication administration, advanced care directives, allergies, and delivery of essential services.¹⁴ An AMDA survey of 3,000 sequential admissions to skilled nursing facilities from 25 different hospitals found the following: 22% of transfers had no formal summary of information; legible summaries were available only 56% of the time; secondary diagnoses were missing in 30% of transfers; test results were omitted in 31%-67% of transfers, advance directives and code status were absent in 81% of transfers; and a legible phone number for the transferring physician was present in only 33% of transfers.¹⁵

The stakeholders also expressed similar concerns with respect to transitions from hospitals to nursing homes. They noted that transferring medical information from one care setting to another is time-consuming and information exchanged is often inaccurate. This is because physicians often do not follow their patients across care settings. As observed by the stakeholders, nursing homes often are separated geographically from hospitals, diagnostic services, and physician offices, creating communication barriers that contribute to medical errors. In addition, physicians often do not care for patients across care settings, and there is no standardized process or agreed upon set of information to support transfers across care settings.

A common theme that emerged from discussions with stakeholders was the need for physicians to receive accurate and complete information regarding nursing home patients. Information transfer between hospital and nursing home stays was described as cumbersome and wrought with inaccurate and incomplete transfer of information. In most cases, the facilities did not have computerized medical records beyond the software used to record information for the Minimum Data Set (MDS). All stakeholders agreed that electronic medical records would vastly improve quality of care by reducing the inefficiencies involved with tracking down and recording information at times of transfer and discharge.

TABLE 2. Facility Characteristics

	#1 -- Semi-rural Location	#2 -- Open Practice	#3 -- Managed Care	#4 -- Limited Physician Pool	#5 -- Litigious Environment	#6 -- Evercare	#7 -- Closed Model	#8 -- Specialist Model
FACILITY DESCRIPTIVE INFORMATION								
Number of beds	106	204	162	130	106	300	566	120
Source of X-ray services	Hospital	Mobile and within close proximity	Mobile	Mobile	Mobile	Mobile	Mobile	Contract/ Mobile or send to hospital
Source for laboratory studies	Hospital	In facility	Mobile	Mobile	Mobile	Mobile	Mobile	Accessible from contracting agency within 2 hours
Electronic medical records	No	Yes, but not using currently	No	No	Currently patient information sheet, MDS and nursing assistant flow sheets are electronic. Facility is in the process of implementing a computerized medical record system.	No	No	No
Non-physician stakeholders consult with medical director regarding patients of other physicians	Occasionally	Yes	Yes	Sometimes	Only in Emergencies	Yes	Yes	Yes, but orders written by primary physician
Mid-level practitioners (NPs and PAs)	Not currently but plans to add mid-level practitioners	Yes	Yes, employed by physicians	Yes, employed by the facility	Yes, employed by physicians	Yes, employed by physicians	Yes, employed by facility	Yes, employed by physicians
Medical director credentials	Certificate of Added Qualification in Geriatrics	Certificate of Added Qualification in Geriatrics and Certified Medical Director	Certificate of Added Qualification in Geriatrics and previously a Certified Medical Director (has not renewed certification)	Geriatrics fellowship, Certificate of Added Qualification in Geriatrics since 1994; Certified Medical Director; Certified in Hospice and Palliative Medicine	Certificate of Added Qualification in Geriatrics; Certified Medical Director; Certified in Hospice and Palliative Medicine	Certificate of Added Qualification in Geriatrics and Certified Medical Director	Certificate of Added Qualification in Geriatrics	Certificate of Added Qualification in Geriatrics; Certified Medical Director; Certified in Hospice and Palliative Medicine

TABLE 2 (continued)

	#1 -- Semi-rural Location	#2 -- Open Practice	#3 -- Managed Care	#4 -- Limited Physician Pool	#5 -- Litigious Environment	#6 -- Evercare	#7 -- Closed Model	#8 -- Specialist Model
Special programs/services provided by facility	Large proportion of patients skilled nursing facility patients (42 SNF of total 106 beds)	Owned by Masons as a fraternal organization and preference given to admission of Masons. Training program to recruit local residents to the nursing home field.	On-site contracted therapy department; busy skilled nursing unit; special wound care contract; accepts high acuity residents with severe wounds and high nursing needs (delirium, tube feeds, multiple wounds)	4 units independent living, independent assisted living, medical assisted living, intermediate care/skilled nursing care; on-site clinic with 2 NPs on staff and 5 physicians through university	Specialized dementia unit and skilled nursing unit with on-site team of occupational, physical and speech therapist	Specialized dementia and palliative care units	36 bed skilled nursing facility rehab unit; 72 respiratory care beds; 34 secure unit beds; physicians, and mid-level providers provided through affiliation agreement with university	Specialized dementia unit; skilled and long-term nursing care; respite care; rehab; hospice; and recover care
Number of patients social worker sees per day	25	8	10	20	---	7-8	3	10
Physician or facility involved in litigation	No	Increasing in market area	No aware of any suits	Not in last 3.5 years	More lawsuits in Florida than anywhere in country although facility in case study not currently involved in a lawsuit	No	Not physician, but facility has had some	No
Number of physicians that come to facility	20	9	20	2	20	30-50	6	3
Number of years in nursing home care	NHA 21 MD -- MeD -- SW 10 DON 16 Other --	NHA 20 MD 17 MeD 28 SW 15 DON 38 ADON 14	NHA 28 MD 4 MeD 20 SW 9.5 DON 16 SDC 13	NHA 3 MD 4 MeD 10 SW 9.5 DON 15 NP 5.5	NHA 5 MD 19 MeD 18 SW -- NP1 5 NP2 15	NHA 21 MD 17 MeD 28 SW 10.5 DON 25 RN 24	NHA 6 NM 13 MeD 22 SW 25 DON 5 Other --	NHA 7 MD 6 MeD 6 SW 1 DON 3 RD 2
Number of years at current facility	NHA 6 MD -- MeD -- SW 9 DON 9 Other --	NHA 11 MD 14 MeD 13 SW 15 DON 38 ADON 3.5	NHA 22 MD 2 MeD 20 SW 9 DON 16 SDC 2	NHA 5.5 MD 2 MeD 3.5 SW 9 NP1 4 NP 5.5	NHA 5 MD 4 MeD 4 SW -- DON 3 RN 24	NHA 4.5 MD 14 MeD 28 SW 10.5 DON 5 Other --	NHA 5 MD 5 MeD 13 SW 10 DON 5 RD 2	NHA 7 MD 6 MeD 6 SW 1 DON 3 mos 3 RD 2
PHYSICIAN SPECIALIZATION PRACTICE MODELS								
Geriatrics/teaching		X		X			X	
Nursing home only								X
Closed Panel Model -- Staff Physicians							X	
Limit Number of Community-Based Physicians				X				
A variety of other physician practice models	X		X		X	X		

TABLE 3. Physician Practice Model Characteristics								
	#1 -- Semi-rural Location	#2 -- Open Practice	#3 -- Managed Care	#4 -- Limited Physician Pool	#5 -- Litigious Environment	#6 -- Evercare	#7 -- Closed Model	#8 -- Specialist Model
PHYSICIAN PRACTICE INFORMATION								
Percentage of time physician cares for nursing home patients	70%	40%	80%	10%	40%	90%	25-30%	95%
Number of hours physician cares for nursing home patients each week	30	16	40-50	5-6	20	40	8-10	60
Number of patients physician cares for in nursing homes	200	69	150	75	200	300	120	20-250
Number of facilities where physician follows patient	3	8	7	3	4	10	1	4
PHYSICIAN SPECIALIZATION PRACTICE MODELS								
Geriatrics/teaching	X			X			X	
Nursing home only								X
Closed Panel Model -- Staff Physicians							X	
Limit Number of Community-Based Physicians				X				
A variety of other physician practice models	X		X		X	X		

IV. ISSUES REQUIRING FURTHER CONSIDERATION AND FUTURE RESEARCH

The findings from the stakeholder interviews in the context of extant literature suggest several important issues for further consideration as well as some areas for future research. In this section, we first discuss issues in three areas, followed by recommendations related to two specific research activities that would advance our knowledge related to physician practice in nursing homes. The issues to be discussed include: (1) availability of mid-level providers in LTC; (2) physician training in geriatrics and nursing home care; and (3) providing incentives for enhancing physician care through pay-for-performance.

Areas requiring further research where our findings and consensus suggest the potential to improve physician care in nursing homes include: (1) physician specialization in nursing home care and its impact on quality and costs; (2) health information transfer using technology across providers and settings when caring for nursing home patients; and (3) physician pay-for-performance incentives for care in nursing homes. These issues and research topics are discussed below.

ISSUES REQUIRING FURTHER CONSIDERATION

Availability of Mid-Level Providers in Long-Term Care

NPs and PAs have been shown to enhance the care of LTC residents,^{5,20,21,22,23,24} which was further supported by our stakeholder interviews. NPs and PAs make urgent resident visits, provide preventive care to long-stay residents, often provide specialty services such as hospice care and wound care, and help educate nursing staff working in nursing homes. Different models exist for involving mid-level practitioners in LTC either as employees of the nursing facilities or employees of physician practices. Current policy permits mid-level practitioners to alternate visits with physicians.

Given the evidence in support of the value of NPs and PAs in LTC, a major issue relates to the barriers that exist to greater involvement of mid-level practitioners in nursing home care. One such obstacle appears to be dissemination of the different types of practice models that are possible for involving NPs and PAs in LTC facilities and obtaining reimbursement for their salaries. Because of the differences in payers, nursing facilities, and markets, a single model is not optimal in all settings. For example, facilities in states with higher Medicaid rates are more able to pay for mid-level practitioners as salaried nursing home staff, whereas managed care programs can hire NPs using Medicare-risk dollars that are offset by a reduction in hospitalization of nursing home residents. Additionally, physician practice groups may be more receptive to providing medical services to nursing home residents if they are more aware of Medicare coverage rules and payment rates for NP service, and the benefits of these

NP services to both physician practices and nursing facility residents. Thus, dissemination of practice model and reimbursement information may help to stimulate providers to seek out mid-level practitioners.

Three ongoing initiatives are describing practice models of advanced practice nurses in LTC facilities. These three include: (1) a national survey, conducted in collaboration with AMDA, to determine the number of geriatric NPs caring for residents in nursing homes, and to describe the characteristics of this practice; (2) a summary of existing advanced practice nursing models in LTC, including the structure of existing practice models, types of collaboration with physicians and other health care professionals, state-to-state variation in practice acts/actual practice, obstacles to practice, reimbursement methodology and any measured outcomes,²⁵ and (3) an invitational conference/symposium sponsored by the American Association of Colleges of Nursing to disseminate information on and training material for NP and PA services in nursing homes and to provide a forum to share information and discuss strategies.²⁵ Information from these initiatives could be disseminated to nursing facilities and physician groups and also to guide recommendations regarding recruitment, training, and retention of geriatric advance practice nurses in nursing homes.

An additional barrier identified in the literature and by stakeholders relates to the size of the NP and PA workforce, and in particular the funding and training of those who are interested in LTC. Specifically, an issue is the adequacy of the supply of NPs and PAs who have been trained in either geriatrics or nursing home care. One strategy that has demonstrated success in attracting advanced practice nurses to LTC is the teaching nursing home concept in which schools of nursing establish affiliations with LTC facilities providing an advanced practice degree program for nurses with an emphasis in LTC. These affiliations have not only been shown to improve quality of care in the nursing facilities but to increase the number of advance practice nurses with experience and interest in LTC.^{26,27,28}

Physician Training in Geriatrics and Nursing Home Care

Stakeholders indicated that physicians exposed to nursing home care during their medical training were more likely to include nursing home patients in their practice. In addition, stakeholders preferred working with physicians who dedicated a significant proportion of their practice to nursing home care because these physicians were more responsive to acute changes in condition and more attentive to issues and conditions of greatest concern to nursing homes and nursing home patients. Sources identified in the literature review supported early exposure during medical training as a strategy to increase physician experience and familiarity with nursing homes, and increase the number of physicians practicing in this setting.^{2,3,4} Further, the literature indicates that physicians who specialize in nursing home care are on-site at nursing homes more frequently, have quicker response times to emergencies, lower hospitalization rates, and reduced use of medications.^{7,8}

Most physicians who train in geriatrics are exposed to nursing home care and learn about the clinical issues faced in the nursing home setting. However, only three of the nation's 145 medical schools have geriatrics departments, and less than 10% of medical schools require a geriatrics course.²⁹ In 2002, out of 7,765 accredited specialty programs, only 97 were in geriatric medicine. Of these 97 programs, there were 333 residency slots, which make up less than 0.3% of all residency slots reported by the Accreditation Council for Graduate Medical Education. Of the more than a half million licensed physicians practicing in the United States, fewer than 9,000 have met qualifying criteria in geriatrics -- which amounts to roughly 2.5 qualified geriatricians to every 10,000 older adults.

With so few trained geriatricians, most nursing home care is provided by physicians who are not geriatrics specialists. Most of the physicians who provide nursing home care as part of their practices are family physicians or internists with no specialized training either in nursing home care or in geriatrics.³⁰

Supporting nursing home education to physicians-in-training would target both medical students and resident physicians. Exposure of both medical students and resident physicians to nursing home care would have several benefits. First, this education, by virtue of exposure, would improve recruitment efforts of physicians into the nursing home workforce. Second, for physicians who do not later develop a nursing home practice, this education would improve their understanding of the challenges and limitations of providing care in nursing homes, thereby improving care transitions from acute care and outpatient settings to nursing homes.

Incentive Payments for Medical Practice in Nursing Homes

Increasingly, health care payers are looking towards value-based purchasing as a tool to improve the quality and efficiency of care.

Medicare is implementing pay-for-performance programs for physicians to support better care by sharing the savings from quality improvements to Medicare fee-for-service beneficiaries. Section 412 of the Benefits Improvement and Protection Act of 2000 mandated the Medicare Physician Group Practice (PGP) Demonstration. During this demonstration project, the Centers for Medicare and Medicaid Services (CMS) rewards physician groups that improve patient outcomes. The performance measures used in this demonstration are ambulatory care measures that measure improvements in community-based medical practices.

In addition, Section 646 of the Medicare Modernization Act (MMA) requires CMS to establish a demonstration program to improve quality of care while increasing efficiency across an entire health care system. In response to this provision, CMS has initiated a competitive process to select eight to 12 PGPs, integrated health care delivery systems, and regional coalitions to participate in this demonstration. Initial proposals for the "Medicare Health Care Quality" (MHCQ) demonstration program were received by

January 30, 2006. For the second phase, to be considered, proposals must be received by September 29, 2006.

CMS recently announced that it will make available the shared savings payment model and quality measurement and reporting processes used in the PGP Demonstration to second phase applicants to the MHCQ demonstration program.

Neither the PGP Demonstration nor the MHCQ demonstration programs focus on improving the medical management of patients in nursing homes. The performance measures used in the PGP Demonstration are not always appropriate metrics for the medical management of a frail institutionalized population. In addition, the statute limits the scope of the MHCQ demonstration. Specifically, Section 646 of the MMA statute defines an integrated health care delivery system as one that coordinates care through hospitals, clinics, home health agencies, ambulatory surgery centers, skilled nursing facilities, rehabilitation facilities and clinics, and employed, independent, or contracted physicians. Thus, while the MHCQ demonstration proposals could include a focus on improving the medical management of patients residing in skilled nursing facilities, these proposals cannot include incentives to improve the medical management of patients in long-term nursing facility stays.

FUTURE RESEARCH

Assessing the Impact of Physician Specialization in Nursing Homes on Quality of Care and Medical Costs of Care for Nursing Home Residents

A growing number of physicians are specializing in service delivery in nursing homes. While many of the stakeholders believe that quality of care to nursing home residents is enhanced through physician specialization, there is only limited, empirical evidence to support these views. The extent of nursing home specialization and the degree to which physicians specialize in nursing home practice (e.g., the percentage of physicians' Medicare claims made on behalf of nursing home residents) also has never been described. If specialization is found to improve quality of care, pay-for-performance incentives may be developed to expand this practice model.

A future project could examine the association between degree of physician specialization (controlling for patient, facility and market factors) and nursing home quality indicators and avoidable hospitalization rates among nursing home residents. The study will involve a facility-level analysis to determine if the quality indicators most directly effected by physician practices are different in facilities where most physicians have medical practices devoted to the care of nursing home residents. In addition, the study will involve a physician-level analysis to determine if avoidable hospitalizations for the patients of a given physician differ depending on the proportion of clinical care the physician devotes to nursing home care. Physician specialization will be measured as the percent of a physician claims made on behalf of nursing home residents. Rates and

costs of avoidable hospitalizations will be measured and compared across physicians. Physician claims will be stratified by the:

1. percent of physicians' Medicare claims for treating nursing home patients, and
2. percent of physicians' Medicare claims by number of nursing homes in which each physician saw patients.

Methods: One year Medicare Part B physician reimbursement data with one of eight billing codes unique to nursing home care will be selected for inclusion in the analysis of all data from five states.^{31,32,33} These unique codes will serve to identify physicians who care for nursing home residents. The codes will be linked to the Medicare provider number for each physician. Physicians who provided nursing home care would be stratified by quartiles based on the number of nursing home claims in the prior year as a percentage of all their Medicare Part B claims. The files then will be linked to Medicare Provider Analysis and Review hospital claims data, nursing facility attribute data from the Online Survey Certification and Reporting file, the MDS, and Area Resource File data. Facility identification numbers will be obtained from all claims and from linked MDS data, and a physician specialization index will be calculated for each facility based on the number of patients each physician cared for in a given facility, weighted by their degree of specialization (calculated using quartiles of specialization). Facilities will then be classified by the degree of physician specialization within the facility. Utilizing MDS data for diagnostic information and risk adjustment, quality indicators related to physician practice and potentially avoidable hospitalizations will be identified for all physicians and all facilities included in the analysis.

Analysis: Two analyses will be performed. One will determine the association between quality indicators that are potentially affected by physician practice models and the degree of nursing home specialization. The second analysis will determine the association between avoidable hospitalizations and the degree of nursing home specialization.

Eight nursing home quality indicators will be utilized to assess differences in quality based on the degree of physician specialization in the facility. The quality indicators will include the following: use of nine or more different medications; moderate to severe daily pain; prevalence of symptoms of depression without anti-depressant therapy; prevalence of anti-anxiety/hypnotic use; prevalence of hypnotic use more than two times in last week; prevalence of anti-psychotic use, in the absence of psychotic or related conditions; prevalence of indwelling catheters; and use of physical restraints.

Five hospital transfer measures will be utilized to assess the quality of care. The primary outcome variable for this analysis will be avoidable hospitalizations. This outcome variable will include hospitalization for: congestive heart failure, electrolyte imbalance, respiratory infections, urinary tract infections, and sepsis.³⁴ These hospital transfer measures were developed for a prior investigation involving nursing home quality related to nurse staffing ratios.

Facility-level variables in the analysis will include: size, location, rural/urban designation, ownership (i.e., for-profit chain, for-profit non-chain, government owned and non-profit), and affiliation (i.e., hospital-based or freestanding). Patient-level variables extracted from MDS will include: age, gender, ethnicity, marital status, primary diagnosis, co-morbid illnesses, body mass index (calculated from height and weight), functional status, cognitive status, length of stay and advance directives.

A series of regression analyses will be utilized to determine the contribution of physician specialization in nursing home care on quality indicators and avoidable hospitalization rates relative to patient, facility, and market-level risk factors for nursing home quality and avoidable hospitalizations. The primary outcome variables will be modeled using multilevel multinomial logistic regression. Analyses will be performed at the physician provider and facility-level to determine: (1) if quality indicators differ between facilities with physicians in different quartiles of nursing home specialization, (2) if avoidable hospitalization rates differ between physicians in different quartiles of nursing home specialization, and (3) if avoidable hospitalization rates differ in facilities with a high degree of specialization among the physicians who care for residents in the facility.

Payment will be assessed using Medicare payment amount derived from Medicare claims. For the utilization and Medicare payment analysis, only patients receiving skilled nursing facility care under the Medicare Part A benefit will be studied. Due to significant variations in Medicaid payment schemes across states, an analysis including patients receiving Medicaid is beyond the scope of the proposed analysis. Nursing home payments will be based on Resource Utilization Group categories and hospital payments derived from Diagnostic Related Group payments. Using multivariate analysis, payment will be risk adjusted for patient and facility variables that are associated with cost of care. The average daily payment for care will be calculated for a nursing home versus a hospital stay. Following a review of the average nursing home and hospital payment distributions, outliers will be removed to normalize the distribution. Total hospital costs will be calculated for all avoidable hospitalizations for each of the four physician specialization strata during the one-year time period, adjusting for case mix.

Improving Information Exchange Through the Use of Health Information Technology

Increasingly HIT is recognized as a tool that can facilitate information exchange and communication across unaffiliated settings of care and between clinicians and patients. However, even in health delivery systems that use HIT and electronic health records, sometimes these tools are not used to exchange health information across affiliated and unaffiliated providers (such as long-term care providers).¹⁰

A study could be undertaken to understand the: (1) types of health information that is needed to be exchanged between health care providers (e.g., hospitals, physicians, pharmacies, labs, etc.) and post-acute care (PAC) and LTC settings, particularly those

PAC and LTC providers that are unaffiliated with the hospital and/or physician practices, (2) mechanisms used to exchange that information (including the types of HIT being used to support the creation, storage, and exchange of needed information), and (3) factors that support or create barriers to the timely exchange of needed health information.

Methods: This investigation will integrate information from a literature review, stakeholder discussions and site visits to describe particular/common instances requiring the exchange of needed health information for persons needing PAC and LTC; the type of information needed to be exchanged; how this information is exchanged (including whether HIT is used to support the exchange), the timeliness of the information exchange, and the factors that promote or limit timely health information exchange.

Literature Review: A review of the published and unpublished literature related to information exchange needed in nursing homes will include a review of: articles on the types of information exchange needed to support care delivery to persons receiving nursing home care and home health care, what is known about the extent to which needed information is exchanged in a timely manner, the extent to which electronic health information systems are being used to produce and/or receive needed health information, and the factors that support or hinder the timely exchange (including electronic exchange) of needed information to and from PAC and LTC providers; and any regulatory, licensure, certification, and/or accreditation requirements for information exchange to and from nursing home providers.

Stakeholders Discussions: Discussions with persons knowledgeable about health information exchange and electronic health information exchange including to and from PAC and LTC settings will be conducted. Topics will include: types of health information needed to be exchange in nursing homes; extent to which HIT is being used to support the exchange of the needed information; factors that support or hinder the exchange of needed information and the options that could be considered to promote such exchange.

Site Visits: Site visits will be conducted to: (1) health delivery systems (i.e., physicians, hospitals, and possibly lab and/or pharmacy services) that use HIT; and (2) PAC/LTC providers. The PAC/LTC providers that will be included are those that:

- serve patients who are treated by physicians and in hospitals and may receive laboratory and/or pharmacy services from the selected health delivery system; and
- may or may not electronically exchange needed health information to and from the selected health delivery system.

Stakeholder discussions will be conducted to obtain information on: the hardware, software, and architecture used by the health delivery system to create, store, and exchange health information and the timing of the transmission of needed health

information to and from PAC and LTC providers; organizational, cultural, and technological barriers confronted when transmitting health information to nursing home providers and how these barriers have been addressed; and next steps that could be pursued to promote the exchange health information between PAC and LTC providers and health delivery systems that use HIT.

ASPE is funding a study on health information exchange with PAC and LTC settings.

Incentive Payments for Medical Practice in Nursing Homes

Given the quality of care issues present in nursing homes, the increasing medical complexity of nursing home patients, the limited number of physicians, NPs and PAs who practice in nursing homes, and the current focus on pay-for-performance measures in community-based practices, the study of effective physician practice in nursing homes is imperative.

A study to pay for physician performance in skilled nursing facility/nursing homes could test the effects of incentives for physicians (and their NPs and PAs) to play a more active role in the care of their skilled nursing facility/nursing facility residents. Process performance measures for physician and physician extender care in nursing homes could include timeliness of visits to skilled nursing facility/nursing facility residents, responsiveness to phone calls from nursing home staff, and transfer of necessary information between a physician and nursing home staff. Outcome performance measures would need to target aspects of nursing home care over which the physician has the most influence. For example, use of unnecessary or inappropriate medications, untreated depression and pain, and rates of potentially avoidable hospitalizations might be considered.

The current pay-for-performance demonstration models do not provide incentives for physician and/or physician practice groups that include NPs and PAs to improve the medical management of long-term nursing home residents. A study could be developed either under Section 646 demonstration program or under an expanded demonstration program to create physician incentive payments to promote high quality medical management by physicians and/or physician practice groups that include NPs and PAs on behalf of medically fragile nursing home patients. The Section 646 demonstration could include only the nursing home residents in a Part A covered skilled nursing facility stay. An expanded demonstration program could include physician and physician practice group management of all nursing facility residents. A study of physician pay-for-performance in skilled nursing facility and nursing homes could test the effects of physician incentives.

Process data could be obtained either from claims or from the nursing home. For example, timeliness of physician and physician extenders visits in accordance with federal regulations (every 30 days for the first 90 days and then every 60 days thereafter) could be obtained from billing data. However, additional information could

be obtained from the nursing home staff on whether urgent physician and mid-level provider visits were made in a timely manner. Similarly, nursing home staff could provide information on timeliness with which physicians and mid-level providers returned phone calls and whether necessary orders and other information was received from physicians in a timely fashion. These data could feed into a measure of care coordination between the physician and their group practice, and the nursing home.

Medication data available under the Medicare Part D program could be used to evaluate physician prescribing for nursing home and skilled nursing facility residents and whether unnecessary medications or inappropriate medications were used. Criteria exist for minimizing the use of medications that increase risks of falls and confusion in older persons, such as benzodiazepines, unless there is a specific diagnosis for which the medication is most appropriate. Other medications with side effects that could be replaced by a medication that is more easily tolerated in elders, as well as dosing that does not take into consideration compromised renal function in older persons could also be used for pay-for-performance.

Physicians do influence hospitalization rates based on their decisions to visit patients in the facility and initiate treatment early when problems are first identified. Hospitalization for potentially avoidable causes, such as urinary tract infections, respiratory infections, sepsis, wound infections, and conditions such as congestive heart failure where monitoring and early response might avoid the need for hospitalizing a resident, are potential performance measures for physician care. However, physicians are not solely responsible for hospitalization of nursing home residents, and thus these measures should be risk adjusted to take into account facility characteristics that research has found to be associated with preventable hospitalization rates (such as nursing home staffing). These measures and risk adjustors are available from claims and MDS.

Following standard treatment approaches for problems such as pain and depression also can be used as physician performance measures. If such conditions have been identified, treatment is appropriate. However, for some conditions following standard treatment guidelines may not always be the most appropriate treatment intervention for the elderly nursing home patient. Management of diabetes for an elderly nursing home resident is an example of when widely accepted community-based standards of practice may contraindicated. Aggressive diabetic management to reduce hyperglycemia (high blood sugar) may not be appropriate for the nursing home patient. The long-range complications related to chronically elevated glucose (e.g., kidney failure, blindness, nerve damage) are of less concern in an elderly nursing home patient because they may take years to develop, while a single hypoglycemic episode (low blood sugar) may result in death; suggesting less aggressive management of hyperglycemia is appropriate. Thus, hemoglobin A1c is not the most appropriate performance measure for elderly diabetic persons in a long-term nursing facility stay, whereas it may be for individuals residing in the community.

Therefore, in developing physician pay-for-performance measures for nursing home care, the unique characteristics of nursing home residents and the environment of the nursing home must be taken into consideration. Such measures will apply specifically to the care of nursing home residents and not to a physician's outpatient population.

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APPENDIX A. DISCUSSION GUIDES

Stakeholder Discussion Guide for Nursing Home Administrators

Market Area Number (please circle) 1 2 3 4 5 6 7 8

Name of Facility: _____

Name of NHA: _____

Name of Interviewer: _____

Stakeholder Discussion Interview Questions

Hi, my name is (Lori-Ann, Dr. Levy, Dr. Epstein). I'm calling from the University of Colorado Health Sciences Center, Division for Health Care Policy and Research. This is a follow-up interview to the pre-interview questions you received regarding physician practice patterns several weeks ago in the mail. The University is under contract by The Assistant Secretary for Planning and Evaluation, also known as ASPE. ASPE is interested in both the access to physician services and the quality of physician services delivered to an increasingly medically complex nursing home population. We at the University are conducting stakeholder discussions pertaining to factors affecting physician practice patterns in nursing homes in order to supplement the current literature thus far identified regarding this topic. As a Nursing Home Administrator, you have been identified as someone who could offer valuable information to our investigation for ASPE. Please let me know if you have any questions or need further information at any point throughout the interview. This interview should take **approximately _____ minutes** of your time. Let me express my gratitude in advance for your donation of time to assist us in this interview process.

Qualifications, Practice Models, and Patterns

1. How accessible are x-ray and lab services in urgent care?
2. Do you have electronic medical records (EMR)? If yes, how do they assist in your interactions with physicians and delivering medical care?
3. Do you have Managed Care or Evercare patients at your facility? If yes, do you find the physicians of these patients to practice differently than the physicians of your fee-for-service patients? If yes, how?
4. If your facility employs physician extenders, how do they supplement or substitute for physician care?
5. Please describe by whom and how advance directives are discussed in your facility.
6. Ideally, how would advance directives be incorporated into the care of residents in your facility?
7. Please describe what you feel the role of advance directives in nursing homes is.

Access

8. Do you have any difficulty recruiting physicians? If yes, why do you believe it is difficult to get physicians to treat nursing home patients? If no, do you refuse privileges to some physicians? If yes, how do you decide?
9. Do you have a lot of physician turnover?
10. If your facility has high nursing staff turnover, how does this affect the nurse-physician interactions?
11. Are you aware of additional training credentials that your nursing facility physicians have, such as geriatric fellowships, etc.? If yes, do you notice differences in practice patterns among physicians with different training?
12. Have you had physicians drop patients because of malpractice concerns?
13. Do liability concerns affect the way physicians practice in your nursing facility or affect your interaction with them? If yes, do they affect your procedures for transfer/hospitalization?
14. How has physician recruitment changed over the past five years?

Quality

15. What is your role in deciding whom to admit?
16. How many hours does the average attending physician spend in the nursing facility?
17. What are your procedures if you fear a physician is giving sub-optimal care?
18. What are the reasons that residents change attending physicians?
19. How often do residents change attending physicians?
20. What is your biggest problem or concern about the delivery of physician services in your nursing facility?
21. Do you have any suggestions to improve physician care in nursing homes?
22. Other than physicians, medical directors, directors of nursing, nursing home administrators, and social workers, who else would be knowledgeable about physician practice patterns at your facility?

Stakeholder Discussion Guide for Directors of Nursing

Market Area Number (please circle) 1 2 3 4 5 6 7 8

Name of Facility: _____

Name of DON: _____

Name of Interviewer: _____

Stakeholder Discussion Interview Questions

Hi, my name is (Lori-Ann, Dr. Levy, Dr. Epstein). I'm calling from the University of Colorado Health Sciences Center, Division for Health Care Policy and Research. This is a follow-up interview to the pre-interview questions you received regarding physician practice patterns several weeks ago in the mail. The University is under contract by The Assistant Secretary for Planning and Evaluation, also known as ASPE. ASPE is interested in both the access to physician services and the quality of physician services delivered to an increasingly medically complex nursing home population. We at the University are conducting stakeholder discussions pertaining to factors affecting physician practice patterns in nursing homes in order to supplement the current literature thus far identified regarding this topic. As a Director of Nursing, you have been identified as someone who could offer valuable information to our investigation for ASPE. Please let me know if you have any questions or need further information at any point throughout the interview. This interview should take **approximately _____ minutes** of your time. Let me express my gratitude in advance for your donation of time to assist us in this interview process.

Qualifications, Practice Models, and Patterns

1. Do you have electronic medical records (EMR)? If yes, how do they assist in your interactions with physicians and delivering medical care?
2. Do you have Managed Care or Evercare patients at your facility? If yes, do you find the physicians of these patients to practice differently than the physicians of your fee-for-service patients? If yes, how?
3. What are your procedures for contacting a physician with a change in condition?
4. What are your procedures for contacting a physician with an urgent care request?
5. What happens if he/she does not respond?
6. If your facility employs physician extenders, how do they supplement or substitute for physician care?
7. Please describe by whom and how advance directives are discussed in your facility.
8. Ideally, how would advance directives be incorporated into the care of residents in your facility?
9. Please describe what you feel the role of advance directives in nursing homes is.

Access

10. In your interaction with physicians, do you believe your facility has a lot of physician turnover?
11. If your facility has high nursing staff turnover, how does this affect the nurse-physician interactions?
12. Do you think liability concerns affect the way physicians practice in your nursing facility or affect your interaction with them? If yes, do they affect your procedures for transfer/hospitalization?
13. Do concerns about lawsuits affect your procedures for contacting physicians for a change in condition?
14. Do concerns about lawsuits affect your procedures for contacting physicians for an urgent care need?

Quality

15. Do you think attending physicians at your facility hospitalize residents at different rates? Please explain:
16. Are there any other patterns that you've noticed with regard to attending physicians and hospitalization (e.g., Physicians who are frequently in your nursing home either more/less likely than physicians with a few patients to hospitalize)?
17. Have you seen changes in the patterns of hospitalization over the past five years?
18. How many hours does the average attending physician spend in the nursing facility?
19. What are your procedures if you fear a physician is giving sub-optimal care?
20. What are the reasons that residents change attending physicians?
21. How often do residents change attending physicians?
22. What is your biggest problem or concern about the delivery of physician services in your nursing facility?
23. Do you have any suggestions to improve physician care in nursing homes?
24. Other than physicians, medical directors, directors or nursing, nursing home administrators, and social workers, who else would be knowledgeable about physician practice patterns at your facility?

Stakeholder Discussion Guide for Social Workers

Market Area Number (please circle) 1 2 3 4 5 6 7 8

Name of Facility: _____

Name of Social Worker: _____

Name of Interviewer: _____

Stakeholder Discussion Interview Questions

Hi, my name is (Lori-Ann, Dr. Levy, Dr. Epstein). I'm calling from the University of Colorado Health Sciences Center, Division for Health Care Policy and Research. This is a follow-up interview to the pre-interview questions you received regarding physician practice patterns several weeks ago in the mail. The University is under contract by The Assistant Secretary for Planning and Evaluation, also known as ASPE. ASPE is interested in both the access to physician services and the quality of physician services delivered to an increasingly medically complex nursing home population. We at the University are conducting stakeholder discussions pertaining to factors affecting physician practice patterns in nursing homes in order to supplement the current literature thus far identified regarding this topic. As a Social Worker, you have been identified as someone who could offer valuable information to our investigation for ASPE. There may be a number of questions regarding hospitalization of patients, the triage system, etc. These and other similar questions are being asked in order to closely examine the physician practice patterns at your facility pertaining to both medical and mental health issues. Please let me know if you have any questions or need further information at any point throughout the interview. This interview should take **approximately _____ minutes** of your time. Let me express my gratitude in advance for your donation of time to assist us in this interview process.

Qualifications, Practice Models, and Patterns

1. What is your role as a SW in the NH facility (e.g., admissions, diagnostic MH intake, treatment, conflict resolution, transition care, etc.)?
2. Are you assigned to specific patients (i.e., Dementia Unit Patients, Urgent Care patients, etc.) or do you perform general clinical care for all patients residing in the home?
3. What is your interaction with the attending physicians in the facility? Please provide some examples (i.e., call if the patient wanted a new physician, etc.):
4. If your facility has Physician Extenders (PAs/NPs/GNPs), what is your interaction with them? Do you find that you interact more with the Physician Extenders, or with the physicians? Do you find this facilitates completing your job related tasks? Why or why not?
5. What is your interaction with the Medical Director in your facility?
6. Do you find this satisfactory? Why or why not?
7. How easy or difficult is it to set up meetings with the attending physicians?
8. How easy or difficult is it to set up meetings with attending physicians?

9. Does your facility have patients enrolled in Managed Care programs? The Evercare program? Do you notice any difference in how the Managed Care physicians and Evercare physicians practice versus the fee-for-service physicians? If so, please explain:
10. Please describe by whom and how advance directives are discussed in your facility.
11. Ideally, how would advance directives be incorporated into the care of residents in your facility?
12. Please describe what you feel the role of advance directives in nursing homes is.

Access

13. How easy or difficult is it to intervene between the attending physician and family of the patients? What is the most common reason to intervene between the physician and family?

Quality

14. Do you have any attending physicians you feel see too many patients? In your contact with patients, how do you feel this affects patient care?
15. Of the attending physicians in your facility, what percentage seem to have a frequent presence in the NH? How do you feel this relates to physician practice patterns?
16. How much time do you estimate attending physicians spend in the nursing home?
17. How does this affect both patient care and ease of completing your job tasks?
18. Who makes the ultimate decision to hospitalize a patient for mental health related issues?
19. What is the triage phone system in place at your facility for MH emergencies?
20. When transferring a patient or receiving one from a hospital for MH issues, do you find consistency in transfer of or receipt of MH records?
21. What is the complaint process at your facility if a patient feels the need to change physicians, complain about access, etc.? Is this the same process for family members of patients? If not, how is the process different?
22. What percentage of patients in your facility would you say are satisfied with their physician interaction? What percentage are dissatisfied?
23. Of those that are satisfied, what part of their physician interaction would you say facilitates this satisfaction?
24. Of those dissatisfied, what part of their physician interaction would you say dissatisfies them?
25. What percentage of family members of patients in your facility would you say are satisfied with the physician interaction? What percentage are dissatisfied?
26. Of those that are satisfied, what part of the physician interaction would you say facilitates this satisfaction?

27. Of those dissatisfied, what part of the physician interaction would you say dissatisfies them?
28. Other than physicians, medical directors, directors of nursing, nursing home administrators, and social workers, who else would be knowledgeable about physician practice patterns at your facility?

Stakeholder Discussion Guide for Medical Directors

Market Area Number (please circle) 1 2 3 4 5 6 7 8

Name of Facility: _____

Name of Medical Director: _____

Name of Interviewer: _____

Stakeholder Discussion Interview Questions

Hi, my name is (Lori-Ann, Dr. Levy, Dr. Epstein). I'm calling from the University of Colorado Health Sciences Center, Division for Health Care Policy and Research. This is a follow-up interview to the pre-interview questions you received regarding physician practice patterns several weeks ago in the mail. The University is under contract by The Assistant Secretary for Planning and Evaluation, also known as ASPE. ASPE is interested in both the access to physician services and the quality of physician services delivered to an increasingly medically complex nursing home population. We at the University are conducting stakeholder discussions pertaining to factors affecting physician practice patterns in nursing homes in order to supplement the current literature thus far identified regarding this topic. As a Medical Director, you have been identified as someone who could offer valuable information to our investigation for ASPE. Please let me know if you have any questions or need further information at any point throughout the interview. This interview should take **approximately _____ minutes** of your time. Let me express my gratitude in advance for your donation of time to assist us in this interview process.

Qualifications, Practice Models, and Patterns

1. Do you serve as a medical director of any facilities?
2. How many hours do you spend in your medical director role?
3. What models of physician practice have you observed in the facilities where you serve as medical director?
4. Do you see patients in your facility?.

Access

5. How did you decide to become a Medical Director?
6. Does the cost of malpractice insurance influence your care of nursing home residents?
7. Are you finding it difficult to find a malpractice insurance carrier to cover the provision of nursing home care?

Quality

8. How do you address non-compliance by physicians in your facilities?
9. Do you have difficulty finding physicians to care for residents in your facility(ies)?
10. If you don't see patients in your facility, why? And do you ever participate in the care of residents for whom you are not the attending physician? In what instances?

If the Medical Director does see patients in his/her facility:

Qualifications, Practice Models, and Patterns

1. What percentage of your time is spent caring for nursing home residents?
2. How many hours per week do you spend caring for nursing home residents?
3. On average, how many nursing home patients do you follow?
4. At how many facilities do you follow patients?
5. Please describe how the care of nursing home residents is incorporated into your medical practice (Use of Nurse Practitioners, Exclusively nursing home care, Part of a private office-based practice, etc.)?
6. Please describe by who and how advance directives are completed in your facility.
7. Ideally, how would advance directives be incorporated into the care of residents in your facility?
8. Please describe what you feel the role of advance directives in nursing homes is. What physician practice models have you observed in your community?
9. Which physician practice models do you believe result in the most effective delivery of care?
10. What characteristics of physician practice models lead to poor quality care?

Access

11. Do facility traits affect your decision to care for residents in a particular facility (ex. nurse staffing, location)?
12. Have you felt pressured to hospitalize patients by the facility for the facilities financial reasons?
13. Have you hospitalized a patient because of worries about claim denial? You knew that you would be reimbursed for necessary daily visits in the hospital?
14. Approximately how many residents do you need to follow in one facility to be cost effective?
15. What are the biggest barriers to providing nursing home care?

16. What are the rewards or advantages of providing nursing home care in contrast to hospital or office-based care?
17. What would the ideal training program for physicians providing nursing home care be?

Quality

18. Is the supply of physicians in your region sufficient to care for all of the persons living in nursing homes?
19. Is the supply of physicians willing to care for nursing home residents increasing, decreasing or remaining the same?
20. Other than physicians, medical directors, directors of nursing, nursing home administrators, and social workers, who else would be knowledgeable about physician practice patterns at your facility?

Stakeholder Discussion Guide for Physicians

Market Area Number (please circle) 1 2 3 4 5 6 7 8

Name of Facility: _____

Name of Physician: _____

Name of Interviewer: _____

Stakeholder Discussion Interview Questions

Hi, my name is (Lori-Ann, Dr. Levy, Dr. Epstein). I'm calling from the University of Colorado Health Sciences Center, Division for Health Care Policy and Research. This is a follow-up interview to the pre-interview questions you received regarding physician practice patterns several weeks ago in the mail. The University is under contract by The Assistant Secretary for Planning and Evaluation, also known as ASPE. ASPE is interested in both the access to physician services and the quality of physician services delivered to an increasingly medically complex nursing home population. We at the University are conducting stakeholder discussions pertaining to factors affecting physician practice patterns in nursing homes in order to supplement the current literature thus far identified regarding this topic. As a physician, you have been identified as someone who could offer valuable information to our investigation for ASPE. Please let me know if you have any questions or need further information at any point throughout the interview. This interview should take approximately 20-30 minutes of your time. Let me express my gratitude in advance for your donation of time to assist us in this interview process.

Qualifications, Practice Models, and Patterns

1. Please describe your nursing home practice. For example the number of beds, special units, and unique features (e.g., your facility has a 20 bed sub-acute care unit, all physicians are on staff, etc.).
2. Do you have specialized training in the care of the elderly or nursing home residents? If so, please describe.
3. Please describe how the care of nursing home residents is incorporated into your medical practice. (Use of independent practitioners or physicians assistants, Exclusively nursing home care, Part of a private office-based practice, etc.)
4. What physician practice models have you observed in your community? By practice models, how you organize your delivery of care to patients.
5. What are the good and bad features of these models in your opinion?
6. What do you believe is the ideal physician practice model for delivering nursing home care? Why?
7. Please describe by whom and how advance directives are discussed in your facility.

8. Ideally, how would advance directives be incorporated into the care of residents in your facility?
9. Please describe what you feel the role of advance directives in nursing homes is.

Access

10. How did you begin providing nursing home care?
11. Do facility traits affect your decision to care for residents in a particular facility (ex. nurse staffing, location)?
12. Does the cost of malpractice insurance influence your care of nursing home residents?
13. Are you finding it difficult to find a malpractice insurance carrier to cover the provision of nursing home care?
14. Does reimbursement for your services in nursing homes influence your practice patterns? How?
15. Approximately how many residents do you need to follow in one facility to be cost effective?
16. What are the biggest barriers to providing nursing home care?
17. What are the rewards or advantages of providing nursing home care in contrast to hospital or office-based care?
18. What would the ideal training program for physicians providing nursing home care be?

Quality

19. Is the supply of physicians in your region sufficient to care for all of the persons living in nursing homes?
20. Is the supply of physicians willing to care for nursing home residents increasing, decreasing or remaining the same?
21. Other than physicians, medical directors, directors of nursing, nursing home administrators, and social workers, who else would be knowledgeable about physician practice patterns at your facility?

Stakeholder Discussion Guide for Other Discipline

Name of Facility: _____
Name and Discipline: _____
Date: _____

Stakeholder Discussion Interview Questions

Hi, my name is (Lori-Ann, Dr. Levy, Dr. Epstein). I'm calling from the University of Colorado Health Sciences Center, Division for Health Care Policy and Research. This is a follow-up interview to the pre-interview questions you received regarding physician practice patterns several weeks ago in the mail. The University is under contract by The Assistant Secretary for Planning and Evaluation, also known as ASPE. ASPE is interested in both the access to physician services and the quality of physician services delivered to an increasingly medically complex nursing home population. We at the University are conducting stakeholder discussions pertaining to factors affecting physician practice patterns in nursing homes in order to supplement the current literature thus far identified regarding this topic. You have been identified as someone who could offer valuable information to our investigation for ASPE. Please let me know if you have any questions or need further information at any point throughout the interview. This interview should take approximately 45 minutes of your time. Let me express my gratitude in advance for your donation of time to assist us in this interview process.

Qualifications, Practice Models, and Patterns

1. How long have you been practicing in nursing home care?
2. How long have you been at this facility?
3. How does the medical director contribute to direct patient care in your facility (please circle all that apply)?

Only in emergencies
Substitutes for attending physicians
Other:
4. Does your facility employ physician extenders?
5. If your facility employs physician extenders, how do they supplement or substitute for physician care?
6. What are your credentials? Do you have specialized training in the care of the elderly or nursing home residents? If so, please describe.
7. How many beds does your nursing facility have?
8. What is your arrangement with the nursing facility?
9. What percentage of your time is spent caring for nursing home residents?

10. How many hours per week do you spend caring for nursing home residents?
11. Please describe your facility, the number of beds, special units, and unique features (e.g., your facility has a 20 bed sub-acute care unit, all physicians are on staff, etc.).
12. Roughly, what is the estimated number of patients that you see per day?
13. Do you Managed Care or Evercare patients at your facility? If yes, do you find the physicians of these patients to practice differently than the physicians of your fee-for-service patients? If yes, how?
14. Please describe by whom and how advance directives are discussed in your facility.
15. Ideally, how would advance directives be incorporated into the care of residents in your facility?
16. Please describe what you feel the role of advance directives in nursing homes is.
17. What physician practice models have you observed in your community? By practice models, how you organize your delivery of care to patients.
18. What are the good and bad features of these models in your opinion?
19. What do you believe is the ideal physician practice model for delivering nursing home care? Why?
20. What is your interaction with the attending physicians in the facility? Please provide some examples (i.e., call if the patient wanted a new physician, etc.):

Access

21. In your interaction with physicians, do you believe your facility has a lot of physician turnover?
22. Do you think liability concerns affect the way physicians practice in your nursing facility or affect your interaction with them? If yes, do they affect your procedures for transfer/hospitalization?
23. Do concerns about lawsuits affect your procedures for contacting physicians for a change in condition?
24. Do concerns about lawsuits affect your procedures for contacting physicians for an urgent care need?

Quality

25. Do you think attending physicians at your facility hospitalize residents at different rates? Please explain:
26. Are there any other patterns that you've noticed with regard to attending physicians and hospitalization (e.g., Physicians who are frequently in your nursing home either more/less likely than physicians with a few patients to hospitalize)?
27. Have you seen changes in the patterns of hospitalization over the past five years?

28. How many hours does the average attending physician spend in the nursing facility?
29. Do you have any attending physicians you feel see too many patients? In your contact with patients, how do you feel this affects patient care?
30. Of the attending physicians in your facility, what percentage seem to have a frequent presence in the NH? How do you feel this relates to physician practice patterns?
31. What is your biggest problem or concern about the delivery of physician services in your nursing facility?
32. Do you have any suggestions to improve physician care in nursing homes?
33. Other than physicians, medical directors, directors of nursing, nursing home administrators, and social workers, who else would be knowledgeable about physician practice patterns at your facility?

APPENDIX B. CASE STUDY FINDINGS BY FACILITY

FACILITY 1 -- THE SEMI-RURAL PHYSICIAN PRACTICE MODEL

Facility 1 is a 106 bed, for-profit chain facility located in Minot, ND. Stakeholder discussions included discussions with the nursing home administrator, social worker and director of nursing practicing in this facility. After unsuccessful attempts at contacting the medical director and physicians practicing in the originally selected facility, responses were not obtained for these two groups of respondents.

Nursing Home Administrator: The administrator described a health care work force in this semi-rural area that is affected by geographic isolation. While there are some physicians who are "lifers" and tend to stay in the area for their entire careers, the majority of physicians live in the community only a few years. This results in constant physician turnover. The nurses have better retention rates than the physicians, and they do not tend to move as frequently. The administrator said that physicians do not spend enough time with residents due to poor reimbursement and what he perceived as a generalized disinterest in geriatrics. This facility is considering a requirement of physicians to demonstrate some type of continued involvement with the facility. He envisions a monthly lunch or training session which would facilitate improved communication and a better understanding of changes and trends in the provision of nursing home care. He hopes to engage physicians in nursing home care by helping them to understand federal regulations that guide care in nursing homes and to make it a priority, rather than a duty, for them. However, he cautions that increasing expectations of physicians may cause some to completely lose interest in working in nursing homes. He also believes that nurse practitioners are an asset to long-term care, but that the physician community is not willing to accept them because they feel threatened by nurse practitioners.

Director of Nursing: The semi-rural nature of this facility has led to a close association with the town's only hospital, which is only one block from the facility. The hospital proximity means that physicians are accessible for visits when a resident's condition changes. The facility made a concerted effort to educate the physicians on exactly what level of medical acuity they can manage reasonably in the nursing home and following this intervention, the physicians have similar hospitalization rates. However, the director of nursing indicated that he and the nursing home residents would appreciate more frequent routine physician visits. He reported that malpractice is not a primary concern because lawsuits are not prevalent in this region.

Social Worker: The social worker in this facility interacts with the physicians and their mid-level practitioners mainly during discharge planning, obtaining signatures on advance care directives and communicating patient and family concerns. The social worker does not interact routinely with the medical director, but easily can contact him when assistance with physician care is needed. The social worker reports that one physician is highly regarded by staff, patients, and families, and she attributes this respect to his frequent presence in the facility. The physician's rapport with the patients and facility staff were cited as the reason most patients and families are satisfied. The social worker reported that most physicians spend approximately 30 minutes or less in

the facility each week. She feels this is inadequate to address the complexities involved with each case but that the demands of practicing in a non-urban setting where doctors balance clinic and hospital patients with nursing home patients, more extensive involvement in nursing home care is not possible.

FACILITY 2 -- THE RURAL OPEN PHYSICIAN PRACTICE MODEL

Facility 2 was a rural, 204-bed non-profit, privately owned facility in rural Michigan. There are nine physicians who care for residents in the facility. The administrator, director of nursing, medical director, social worker, a physician and an assistant medical director participated in the stakeholder discussions. Despite the remote location, the facility has developed relationships with the medical and nursing schools at a university such that there is a constant stream of medical students and university-affiliated physicians rotating through the facility. This facility recently received a grant to study the effects of having a telemedicine connection to geriatric physicians at the University of Michigan for nursing home consultations.

Nursing Home Administrator: The administrator has extensive experience in nursing homes as a nurse, director of nursing and surveyor. She has cultivated unique opportunities for this rural facility that have contributed to a very high degree of nursing and physician staff retention and physician satisfaction. She reports that the primary physicians have developed a schedule such that one physician is in the facility every weekday. Because of the physician's involvement in education, a lab was built in the facility for training purposes. The administrator cites physician ignorance about nursing home regulations (e.g., requirements for physician visitation and regulations on use of psychotropic medications) as the biggest barrier to good physician care. She believes that knowledge about nursing home operations and regulations is more useful than any one type of practice model.

Director of Nursing: The director of nursing began her career as a certified nursing assistant. She then obtained additional training to become a licensed practical nurse and, ultimately, a registered nurse. She believes that her experience in each of these roles allows her to be more effective. She has been in nursing home care for 38 years -- all in the same facility.

The director of nursing described two significant changes in nursing home physician practice during her career. Patients are much sicker now compared to when she started working in nursing homes, resulting in an increased need for physician oversight in the care of nursing home residents. She also has observed that family expectations have increased; with families expecting care similar to the care delivered in hospitals where physicians visit daily and nurses have a lower nurse-to-patient ratio. Families become disgruntled when they realize that the intensity of care is lower in the nursing home, leading to litigious overtones and the necessity for both the facility and the physician to practice "defensive medicine" by ordering more tests and having a lower threshold for hospitalization.

The director of nursing reported that physicians in the facility spend anywhere from one to six hours at the facility daily, with the university-affiliated physicians spending the most time caring for patients. She described the ideal physician practice model as a model that allowed physicians to be in the facility for several hours each day to address acute clinical issues. Their practices should be dedicated to long-term care because having an office practice impedes the physician from regularly visiting acutely ill residents. She feels that all nursing home physicians should have specialized training in geriatrics and obtain certification as a medical director of a nursing facility. Otherwise, they are not sensitive to the unique needs of the patients or to the regulatory requirements that shape nursing home care. She feels that the biggest barrier to recruiting young physicians to nursing home care is the negative stigma associated with working in nursing homes.

Medical Director: The medical director has been practicing in nursing home care for 28 years and has been at the current facility for 13 years. He has an added certificate of qualification in geriatrics and is a certified medical director. This facility used to have a closed medical staff such that only specific physicians were allowed to follow patients in the home. The facility billed for the physician services, and physicians were paid on a salary basis. The facility discovered that by supporting this type of arrangement, they required a larger administrative staff to complete the physician billing. Additionally, hospital referrals decreased because the physicians were no longer in the hospital referring their patients to the facility. Now this arrangement has been dissolved and any physician can apply for privileges.

His main concern about the physician workforce in nursing homes is that because many physicians have five or fewer patients in nursing homes, he does not believe this low census provides an adequate skill set for provision of care in nursing homes. He believes that a "modified closed staff" model is the most effective physician practice model. In this model there is a core group of physicians who provide care to most of the patients in the facility; but if a physician wants to care for a specific patient, temporary privileges can be granted. After-hours phone calls would be directed to the core physicians to minimize confusion for the nurses.

The medical director stated that the number of lawsuits has begun to increase here and, with this increase, malpractice insurance premiums have risen. Malpractice premiums are a barrier to maintaining a physician workforce in nursing homes because malpractice insurance is \$8,000 to \$13,000 higher per year for physicians who choose to take care of nursing home patients compared to those who do not.

Social Worker: The social worker in this facility preferred having salaried physicians who were full-time practitioners in the facility. She was disappointed when the facility converted from a closed physician staff to an open staff model. While she recognizes that the current arrangement of a physician on site every day is unique and valuable, she reported that since changing the practice model, physicians seem rushed and not as available to residents and staff for ad hoc guidance regarding resident care.

For example, when the physicians were salaried and more available, the social worker could informally ask the physician to step into a family conference to answer some medical questions for the family. She feels that, ultimately, it is this type of interaction that enhances the perception of quality of care for family and residents. However, the physicians are too busy now during their time in the facility to participate in this type of informal interaction.

She has observed a number of physician practice models, but she feels a closed staff model is the most effective model because communication is seamless between the nursing home staff and the physicians. In the current system she has heard the patients comment that the doctor never saw them during their nursing home stays. She reported that often the physicians do not see the patients and instead write orders and deliver care directly through the nurses. They also rarely meet with families, which leaves the families without contact information or knowledge. She noted that when doctors refuse to deliver care in the nursing home they explain that the reimbursement is too low and the paperwork too voluminous to make it worth their time.

Physician: The physician participating in the stakeholder discussions was involved with the facility as a salaried physician, but now in private practice and bills Medicare Part B visits to nursing home residents. He felt the salaried model provided time to deliver high quality care and noted that he is not able to devote as much time to the facility now that he is an independent physician billing separately. He described the nursing home environment in general as very different from any other care environment due to the regulatory requirements. He stated that any physician practicing in a nursing home needs to know the "house rules" before being allowed to participate. By "house rules," he was referring to regulations limiting the use of chemical and physical restraints, physician visitation requirements, change of condition notification requirements, and a host of other requirements regarding care delivery in nursing homes. He indicated that the regulations are important to understand if one is to practice successfully in the nursing home environment. He feels the ideal model would be a capitated model in which physicians are salaried by a facility, but bear some financial risk and, therefore, a commitment to providing high quality, cost-effective care along with all the other staff members.

Assistant Director of Nursing: The assistant director of nursing has worked in nursing home care and at this facility for 3.5 years. She reported that annual nursing staff turnover is only 30% in this facility compared to 80%-100%, according to national data. She indicated that the facility has developed partnerships with a local nursing consortium to educate students entering the health professions with hopes they will remain in the community to deliver care. She reported that several grants have facilitated the teaching relationship, including one that involves the use of telemedicine. One result of having physicians in the facility every day is the high volume of orders which creates additional work for the nursing staff to enter the orders in the medical record and ensure that orders are carried out. By virtue of being in the facility daily and speaking with nurses and residents about acute issues, more orders are written than in facilities where the physicians are there only a few hours each month and aware of

fewer concerns. She is very pleased with the daily presence of the physicians and believes that this results in a higher standard of care.

FACILITY 3 -- THE MANAGED CARE MODEL

Facility 3 was selected to represent physician practice models involving managed care. The facility has a contract with the large managed care group, Kaiser, and a high penetration of Kaiser patients in the facility. The facility has 162 beds and has 20 Kaiser and 8 private physicians who see patients in the facility. Both the Kaiser and private physicians care for residents receiving skilled (Medicare) and custodial care. In addition, nurse practitioners, who are employed by Kaiser, are very involved in patient care. The facility has both skilled and custodial care beds, and the skilled unit has a rapid turnover of residents with numerous admissions and discharges every day. In this facility, discussions were held with the administrator, director of nursing, medical director, physician and staff development coordinator.

Nursing Home Administrator: The administrator felt the Kaiser physicians pay more attention to patients than the non-Kaiser physicians, and that the approach of pairing physicians with nurse practitioners was highly beneficial to both patients and the facility. He was extremely critical of how the regulatory and legal environments in nursing homes impede the provision of good physician care. For example, he described the intense regulatory environment as one that consumes the majority of his employees' time with paperwork rather than allowing them to provide care to residents. He believed the requirement that nurses call physicians for even minor occurrences results in frustration for both the nurses and physicians. He felt these calls ultimately lead to high nursing staff turnover because nurses fear reaching an intolerant physician for another call about an inconsequential event, such as a skin abrasion.

Director of Nursing: The director of nursing at this facility compared the performance of the Kaiser physicians to the non-Kaiser physicians. She preferred the Kaiser model for several reasons: the physicians and nurse practitioners are on-site more often and more involved with patient care, leading to better care; are always available; they are assigned to Kaiser patients specifically and tend to stay with this nursing home for several years, allowing them to build trust with the nursing home staff; and, finally, they have a comprehensive admissions process that improves communication about medical conditions to the nursing staff at the time of transition into the nursing home and enhances rapport with families. The Kaiser model combines physical presence in the nursing home and an organized admissions process, two features that resulted in better care delivery (e.g., availability in the event of a condition change or emergency, and more complete medical information to guide care) by the Kaiser physicians in contrast to the care provided by the non-Kaiser physicians. She also has observed lower hospitalization rates for patients with the Kaiser physicians; however, she has noticed that hospitalizations have been increasing for patients treated by both Kaiser and non-Kaiser physicians because of malpractice concerns and more frequent hospitalization requests from family members. She reported that when

patients and families seek to change doctors, they usually do so because they are displeased with the timeliness of the physician visits. She has never had a Kaiser patient request another physician, but she has seen requests from patients with non-Kaiser doctors request a new physician.

Social Worker: The social worker reported that there is a high penetration of Kaiser physicians at this facility, about two to every one non-Kaiser physician for the 162 patients. The social worker has frequent in-person interactions with the Kaiser physicians who are in the facility almost every day. However, the non-Kaiser physicians generally are too busy to meet with social workers so interaction with the non-Kaiser physicians is primarily by telephone. She reports that the majority of residents and families are happy with their physicians and with the responsiveness to their concerns. Those who are not satisfied with their physician usually are those seen by non-Kaiser physicians and generally attribute their dissatisfaction to concerns about availability. This concern often is raised by patients who are not enrolled in Kaiser and who observe the Kaiser physicians in the facility daily, but who do not see their own physician in the facility as often.

Medical Director: The medical director is a certified medical director. He spends approximately 18 hours per week providing direct patient care in nursing homes, and the remainder of time in his role as medical director for five different facilities. He cares for 150 patients at a total of seven facilities. In five of the seven facilities, he serves as medical director. He does not employ physician extenders. He is concerned that finding physicians to care for residents will become a problem in the future, but they currently "get by" with a stable number of physicians. During monthly meetings with the staff, the medical director determines if physicians are in compliance with regulations regarding required physician visits, comprehensive annual assessments, signing of all orders, and use of psychotropic medications. In situations where physicians are not in compliance, the Medical Director reviews the case and contacts the physician directly. The Medical Director routinely accepts patients of physicians who do not want to continue following their patients from the outpatient setting into the nursing home, accounting for 60%-80% of all his patient referrals. He believes that the other physicians and their mid-level practitioners do not communicate as regularly with the nursing home staff. He attributed poor communication between the nursing home staff and the other physicians to the low priority doctors give to nursing homes in comparison to the attention paid to their office and hospital-based practices. He explained that the nursing home is simply not the main priority for physicians with outpatient and hospital-based practices because these patients generally are not as ill as hospitalized patients and are not built into their schedules like clinic patients.

Physician: The physician for the managed care model is board-certified in internal medicine with a certification of added qualifications in geriatric medicine. She is employed by Kaiser and currently cares for 150 skilled and custodial level nursing home patients in seven facilities, focusing exclusively on providing geriatric and hospice care. About 75% of her work is direct patient care with geriatric patients and approximately 25% is direct patient care providing home hospice. Her managed care practice model

includes eight physicians and six mid-level practitioners who care for 700-800 skilled and custodial patients residing in 45-50 different facilities.

She described Kaiser as providing a unique and intensive level of care to its skilled nursing home patients. Skilled patients are seen weekly, and custodial care patients are seen monthly for the first 90 days and every 60 days thereafter, sooner if there is a change in condition. A physician may have anywhere from 20 to 30 skilled patients in a single facility. She follows patients at seven facilities, although only one of these facilities provides skilled care. She is typically at the skilled care facility three times a week and sees each patient with her nurse practitioner. Additionally, she meets weekly with nursing home staff, the Kaiser medical staff (i.e., the Kaiser physicians and mid-level practitioners) and the rehabilitation staff at the other six nursing homes. The weekly, intensive physician follow-up is, she believes, what distinguishes the Kaiser model from other community physician practices. Concentrating the skilled patients in fewer facilities also allows for provision of high quality care to frail, elderly patients.

This physician indicated that collaboration with nurse practitioners and physician assistants is essential in allowing the Kaiser physicians to care for large practices. She noted that there are many community physicians who are very good and are extremely attentive to their patients; however, there are an equal number who spend 10 minutes writing in the chart and waving to the patient before leaving the nursing home. She feels it is too risky for patients to leave hospitals, where they require daily visits, to go to a nursing home and receive only monthly visits. She is a proponent of using geriatric fellowship training as the basis for learning how to provide nursing home care.

While she did not perceive an inadequate supply of physicians who see nursing home patients, she did have concerns about the quality of the care provided by physicians who spend minimal time in nursing homes and who are not trained in the care of nursing home patients. When physicians are not present in nursing facilities, communications between physicians and nursing home staff often are handled by telephone. This physician observed that the reliability of the nursing staff assessments impact the medical care provided. If assessments are inaccurate and the physician is generally not present in the facility, it can be very difficult to make accurate and appropriate recommendations.

To be cost-effective, she believed she needed to see a minimum of 10 patients per facility. However, as a salaried physician, she receives the same compensation regardless of the daily fluctuations in her patient volume. She felt flexibility of a physician's schedule is critical in caring for a nursing home population because he/she can alter the amount of time spent with a patient to meet their needs rather than simply responding to the pressure of a waiting room filled with patients.

Staff Development Coordinator: The staff development coordinator is a nurse, responsible for identifying how to improve nursing care to residents and coordinating the educational effort necessary to improve care. She reported that Kaiser physicians were

available daily. She described that most other physicians at the facility only have a few patients, their visits are less frequent, and the timing of their visits much less predictable. She believes that the most pressing issues related to physician practice models are the frequency of visits to patients. She believes that physicians should visit more frequently than monthly and provide more compassionate care.

FACILITY 4 -- LIMITED PHYSICIAN POOL MODEL

Discussions were held in Facility 4 with six staff members of a 130-bed facility located in North Carolina where the medical director and one other physician provide care for 90% of the residents. This facility was selected to represent facilities in which there are a very limited number of physicians providing all of the physician care in the facility. This facility is in close proximity to a university and serves as a training site for medical students and geriatric fellows.

Nursing Home Administrator: The administrator in Facility 4 has been at the current facility for three years and in nursing home care for over five years. She valued the collegiality in the facility, the expertise of geriatricians, and the commitment of the medical director who specialized in geriatrics. She felt geriatricians made a “big difference” in the quality of care and were able to see the “bigger picture,” which meant they were interested in educating nursing home staff and medical students about geriatric syndromes (i.e., urinary incontinence, pressure ulcers, falls) and facility-level quality improvement. Resident care was described as truly a team effort with mutual respect among the staff. The university affiliation allows for a focus on research and quality of care, which she believed, enhanced quality improvement efforts due to constant oversight of these efforts. This facility has on-site physician time every day, which is complemented by two nurse practitioners employed by the facility.

Director of Nursing: The director of nursing has been at the current facility for three-and-a-half years and in nursing home care for 15 years. She reported that with only two physicians, almost all patients change their primary attending to one of the nursing home physicians upon admission. The limited number of physicians allows the physicians to be on-site frequently and highly involved in patient care, two characteristics she felt were indicative of good physician practice. Having physicians on-site also has allowed the facility to handle more medical problems without resorting to hospitalization. She emphasized the need to build a relationship between the facility and the physicians. She believes that malpractice concerns affect the way physicians practice in nursing homes, and that increasing premiums are driving physicians away from the field of nursing home medicine.

Social Worker: The social worker indicated that she spent the majority of her time addressing family and patient concerns as well as completing required documentation/paperwork. The social worker is assigned to specific floors and collaborates with physicians mostly on discharge plans and family concerns. She reported that physicians are in the facility once a week, while the nurse practitioners are

there daily. She said she interacted more with nurse practitioners because they are in the facility more often than physicians, and, for that reason, are more accessible.

The social worker was pleased with physician response time to phone calls and e-mails, which she used to communicate with the physicians regarding non-urgent matters. She reported that it is difficult to set up meetings with physicians, so she only contacts them for meetings if there is a specific medical issue during care planning that needs to be addressed with the family. Families and patients generally are satisfied with the care they receive; however, some expect to be seen by their physician more often. One physician gives families her e-mail address and pager number so they can contact her directly. The social worker reported that the biggest concern from families is getting to meet with and speak to the physicians when they are visiting their loved ones in the facility.

Medical Director: The medical director spends 10% of her time providing medical care for 50 nursing home patients (approximately four hours per week), and the balance of her time is spent caring for clinic patients and teaching at a local university. She is a geriatrician and a strong believer in the need for physicians to have specialized training in long-term care. She believes the physicians must understand the environment of long-term care in order to provide care there. She reported that malpractice issues are impacting physicians' willingness to practice in nursing homes. Physicians with community-based practices rarely are willing to come into the facility so the patients are encouraged upon admission to switch to the physicians who provide care regularly in the facility.

She works closely with the nurse practitioner employed by the facility and enjoys a positive relationship with the nurses who tend to know the patients very well. She felt she is part of a team. She feels long-term care should be incorporated more explicitly into residency and medical school training. She believes that a main barrier to achieving good care in a nursing home is appropriate reimbursement. She also stated that all medical directors should be required to obtain American Medical Directors Association certification in medical directorship. Her motivation for staying in long-term care is the strong relationship she develops with patients and the strong sense of being part of a team. The lack of office overhead also is an appealing feature of her long-term care practice.

Physician: The Medical Director and one other physician take care of nearly all of the residents in this facility. The physician was contacted as the representative physician for this facility. The physician has a certificate of added qualification in geriatrics and works in partnership with the two nurse practitioners in the facility. She also participates in the education of geriatric fellows. She has observed various physician practice models in the community. She reported that physicians associated with academic medical centers are being contracted to provide medical directorship and clinical care, while community-based physicians are either relinquishing care of their nursing home patients or using mid-level practitioners to assist in this care. Other physicians follow their primary care practice patients into the nursing home; however,

this model is being replaced by physicians who are employed by groups that only see nursing home patients. She believed that this new practice model is in response to the increasing acuity of nursing home patients and the need for a practitioner who is in the facility or who can go to the facility to respond to patients who experience acute clinical decline.

She reported that physicians who do not understand the pressures faced by nursing homes staff tend to become hostile with the nurses. She believes the ideal practice model is one where the majority of patients in a facility are cared for by a few physicians who are in the facility regularly and know how to communicate effectively with staff. She cited the following barriers to maintaining physicians who are willing to provide care in nursing homes: (1) concerns about lawsuits; (2) low nurse to patient staffing ratios; (3) nursing staff turnover; and (4) unrealistic expectations of family regarding the capabilities of nursing homes which leads to disgruntled families and physicians who become frustrated practicing in the nursing home environment.

Nurse Practitioner: The two mid-level practitioners at this facility alternate with the physician during the 30 and 60-day visits required by Medicare. The nurse practitioner reported that one facility physician sees patients there once a week for four hours. The nurse practitioner stated that mid-level practitioners supplement physician care by improving patient satisfaction and relationships with family members, and by providing on-site care for acutely ill residents. Mid-level practitioners are contract/salaried employees of the nursing facility. The facility bills Medicare Part B for their services and receives the money that goes towards their salaries. This mid-level practitioner cares for 12-15 patients daily.

She reported that two physicians at this facility generally see patients here every other week and are affiliated with the university. This stakeholder felt that this model works well and that the physicians are very involved in quality review meetings and available for family meetings. She indicated that the predictability of physician visits was one of the strongest assets of this model. The nurse practitioner cited liability concerns as potentially affecting the way the physicians and mid-level practitioners practice at this facility in that documentation is far more detailed and more tests are ordered to ensure accuracy. There also is likely increased communication with the physicians so that all parties involved are current on condition changes and status of the residents.

The nurse practitioner reported that this facility currently is working on decreasing hospitalization rates through increased training of nurses on the use of intravenous therapy. While the supply of nurse practitioners in this region is increasing, those who want to work in nursing homes are not. Unfortunately, she also felt that many nurses within this nursing facility lean on the nurse practitioners to help with their duties, and she felt she could spend more time with patients if she weren't helping the nurses perform their tasks. She indicated that better training for nursing staff would allow more highly trained professionals to focus on complex medical management rather than on assisting with routine nursing duties.

FACILITY 5 -- THE LITIGIOUS ENVIRONMENT

A Florida facility was selected because physician practitioners in the state are currently facing a rapid increase in the number of lawsuits related to nursing home care. Discussions were completed for a nursing home administrator, a medical director, a physician and two nurse practitioners.

Nursing Home Administrator: The administrator has been an administrator for five years at this facility. Given the litigious environment in Florida, it might be expected that facilities would have difficulty in recruiting physicians but that was not the case, according to this administrator.

Although her facility has a contract with a managed care organization, the administrator did not notice any practice differences between the managed care physicians and the other attending physicians. She reported that patients with medical problems almost always are hospitalized when physicians are contacted by nursing staff. She attributed this to either concern about malpractice or simply physician convenience of seeing patients at the hospital rather than at the nursing home where it is difficult to obtain laboratory and radiologic studies in a timely manner from the consulting ancillary service providers.

Medical Director: This medical director has been practicing in nursing homes for 18 years and has been a certified medical director for 10 years. He serves as the medical director in four homes. He cares for 1,000 nursing home residents in 10 nursing homes and is in practice with four physicians, seven nurse practitioners and two podiatrists. Approximately 90% of his patients are in nursing homes.

He believes the optimal nursing home practice model is an attending physician paired with one or more mid-level practitioners. He is in the nursing home three days per week. The facilities he prefers to work in are those with a stable staff and where the director of nursing and administrator have been there for at least two years. Constant turnover is a tremendous barrier to providing quality physician care.

He has observed facilities asking physicians who specialize in hospital care with no qualifications in geriatrics to serve as medical directors simply because they can bring in business from the hospital. In his experience these physicians tend to not call back or attend meetings but the nursing facility corporate representatives are pleased because the physician delivers admissions to the facility. In addition, this medical director believed that a facility can be served best when the medical director has 50% or greater of the patients in a facility. He believed that more physicians often translate into worse care because of the potential for communication breakdowns with each additional practitioner. Time is involved with communicating to multiple physicians with different contact information and styles. For example, if a facility only has two or three doctors, the nurses have ready access to the telephone, pager and fax numbers for each doctor

and know which type of communication method to use for different types of information (e.g., a routine report of a skin tear as opposed to calling a pager used for emergencies). All of the labs in a given day will be faxed to a maximum of three different numbers. This is in contrast to a facility where there are 20 practitioners, all with different contact information, where a desire to receive information in different formats (i.e., fax versus phone report), and the potential for ineffective communication increases with each additional practitioner.

He explained that five years ago many malpractice insurance companies discontinued provision of coverage for physicians working in nursing homes. The state then began issuing malpractice insurance to these physicians. For physicians who only had a few nursing home patients, this signaled their exits from long-term care. He feels physicians who have additional qualifications in the care of nursing home patients, either by the volume of patients they see and/or by training, should be offered lower malpractice rates. He also believes that the public should engage in a dialog regarding the ethical dilemmas faced by nursing homes when providing care to persons at the end of life and that this effort may reduce lawsuits when events such as weight loss and pressure ulcers occur at the end of life.

Physician: The physician expressed difficulty finding affordable malpractice insurance in Florida before the state provided insurance. He explained that the risk of being sued poses one of the major barriers to providing nursing home care. He also reported ordering more tests, being more rigorous with documentation and hospitalizing patients more often due to the malpractice environment in his state. The fear of being sued is pervasive and diminishes the advantages and rewards of a nursing home practice, which he perceives as managing complex medical conditions and developing long-term relationships with patients and their families. The litigious environment is having an adverse impact on the state's supply of physicians willing to go to nursing homes. He stated that physicians are afraid of being sued, and he shared this concern.

He believes that poor care can be an outcome of physicians treating less than five patients in a facility and reported that he usually follows about 10 patients in a given facility. Poor care is characterized by both ineffective communication between the facility and the physician (i.e., failure to return phone calls) and a tendency to hospitalize residents rather than assess them in the facility. Convenient location and adequate staffing affected his decision concerning where to practice. To train physicians, he thought a month-long rotation in a nursing home would be helpful, succeeded by a year of following a panel of patients at various nursing homes.

Nurse Practitioner 1: Mid-level practitioners at this facility are employed directly by the physicians to supplement physician care. This nurse practitioner sees 17-20 patients per day, and the majority of her time is spent on direct patient care. Her biggest concern about the delivery of physician care in nursing homes is the infrequency of physician visits. She feels that having a physician in the facility daily is necessary to address unexpected issues that arise. This stakeholder did not interact with physicians at the facility other than the physician by whom she is employed.

However, she felt those physicians who use mid-level practitioners catch medical issues earlier and decrease the rate of hospitalizations.

She also reported that anxieties about liability concern physicians practicing in this facility. She indicated that reputable physicians have given up their nursing home practices because of liability issues. Because of this, she indicated that she is more aggressive in treating patients. She recommends hospitalization more often, for example, and uses more aggressive treatments than she would in the absence of these concerns.

Nurse Practitioner 2: This nurse practitioner has specialized training in geriatric and hospice care. She spends approximately 50% of her time in the care of nursing home residents and sees 6-10 nursing home patients per day. She reported a substantial change in the physician's role in nursing homes during the past 10 years from one of occasional oversight of patients with straightforward, chronic, stable medical conditions to one of active management of patients with complex, acute and chronic, often unstable conditions. There is increasing recognition by nursing home practitioners that nursing home residents are complicated medically and need physician oversight.

She has observed two physician models in the area. One consists of the dispersed model where a physician has a number of patients scattered in various facilities in town. The other model involves physicians who do not have an office and who spend 100% of their practices in long-term care. Many of these full-time, long-term care practitioners also have mid-level practitioners working with them. She felt that too much responsibility is placed on the mid-level practitioners with the physician only making brief visits that often do not even involve a patient examination. She attributed the frequent lack of an examination to physician discomfort with visits outside of a typical office-based examining room. She explained that many physicians do not know how to conduct the nursing home patient examination because they are not taught in medical school how to perform home visits. She recommended adding an examination room in the facility and actually having the resident go to this room for their visits. She has observed this model in nursing homes and noted an improvement in the quality of the patient-doctor encounter.

Litigation is of great concern to her and she describes it as, "coloring every single thing we do." She attributed the paucity of young doctors entering the field of nursing home care to fear of litigation and questioned why any physician continues practicing in the nursing home setting given the litigious environment.

FACILITY 6 -- HIGH PENETRATION OF EVERCARE MODEL

This facility in Minnesota was selected based on the high penetration of a novel capitated care delivery model. The selected facility is a Catholic-based nursing facility with 300 beds and located in a suburban location. An administrator, director of nursing,

social worker, medical director, physician, and registered nurse participated in stakeholder discussions.

Nursing Home Administrator: Almost one-third of the residents in this facility were enrolled in the Evercare capitated care model for persons eligible for both Medicare and Medicaid. The presence of Evercare nurse practitioners has become an incentive for the physicians to treat patients in the facility because they trust the nurse practitioner's assessment skills and ability to respond quickly to an acute clinical decline. The administrator reported a recent increase in physician recruitment noting that physicians are specializing in and even focusing their entire practice on nursing home patients.

Director of Nursing: This facility has a relationship with one large geriatric group that cares for the majority of its patients. There are also a large number of community physicians who follow a very small number of their own patients in the nursing home. She was very pleased with the geriatric group, but less so with the community physicians. The geriatric group is on-site and more timely with follow-up visits. She reported that when patients change physicians, they usually do so at the urging of the social worker based on physician non-compliance with regulatory visits. She attributed the success of Evercare in this facility to the presence of nurse practitioners rather than any differences in the physician care.

Social Worker: The social worker interacts with physicians prior to admission of a new resident by verifying that the primary physician will follow the resident at the facility. Six physicians see patients in the facility, and three of the six are described as having a frequent presence. Physicians are in the facility about one-to-two times per month, depending on caseloads. The social worker felt that the best physician practice models are those where the physician works closely with a mid-level practitioner because the mid-level practitioners are there more regularly (i.e., 2-3 days per week) and can provide more care than the physician who is on-site infrequently. She noted that the physicians with a geriatric focus tend to make themselves more available for meetings. She also indicated that the Evercare physicians have a much more noticeable presence in the facility, and families tend to expect this of the other, non-Evercare physicians.

Medical Director: The medical director is contracted for four hours of consultative services per week. There are 30–50 physicians who provide medical services to residents in this facility, although there are two medical groups who cover the majority of patients.

He believes the supply of physicians is adequate to provide care to nursing home patients and thought that the supply, in fact may be slowly increasing because organizations like Evercare seem to have success with physician recruitment efforts. He believed that Evercare is the ideal physician practice model for nursing homes and cited Evercare's greatest asset as the integration of nurse practitioners. Evercare's nurse practitioners take phone calls and respond to routine order clarifications, tasks that are frustrating to physicians. He believed that physicians who have only a few

patients in nursing homes and don't understand nursing homes do not provide high quality care. He observed that physicians who provide medical services to at least 50% of the patients in a facility produce better care in terms of communication and provision of services for urgent care needs.

He stated that poor reimbursement for physicians providing nursing home care forces physicians to either have large nursing home patient volumes or abandon their nursing home practices. To make it worth the physician's time, he estimated that a physician should have at least 10 patients in one home.

He believes the most important element in training physicians to care for nursing home patients is hands-on training where a physician-in-training is paired with a nursing home physician. He noted that this training also should emphasize end-of-life care because this is an important issue faced by nursing home physicians every day.

Physician: Until two years ago, the physician in Facility 6 was providing care to nursing home patients as a member of a 50-physician, multispecialty clinic. He was one of 20 primary care physicians spending a half-day a month following patients in various nursing homes. Because the nursing home was seen as a burden for most of the physicians in the group, he offered to do almost all of the nursing home work for the group. He and one other geriatrician have become the main practitioners of the clinic's services to nursing home patients. They see about 300 patients in 10 different nursing homes, with the majority residing in just two facilities, and they continue to follow the patients if they are hospitalized.

He described the most important part of his practice as meeting with all patients and their families when patients are first admitted to the facility for in-depth discussions regarding expectations and care goals. He was adamant that physicians working with nursing home patients need to be trained to look at the overall picture and make goals accordingly. He was critical of physician practice models that emphasize "shift work" where the physician is only available for a defined period of time each day and then transfers care to an on-call physician who may or may not know the patients well. He believes that physicians are exposed first to nursing home care as an after-thought or an "add on" to their already busy practices rather than as an important component of their practices. He believes that a mandatory medical student rotation with physicians who enjoy providing care in nursing homes may spark interest earlier for physicians and cause them to seek rather than settle for nursing home patients.

He added that Evercare changed the way nursing home care was provided in his community and offered a major improvement by utilizing nurse practitioners. He would like to see a group of physicians organized to provide care to nursing home residents and believes using a capitated system places financial risk on the practitioner, resulting in more conscientious care.

Registered Nurse: This nurse is certified in geriatrics and is employed directly by the facility. She does not perform direct patient care, but rather manages staff and

works directly with physicians. This facility has mid-level practitioners who are employed directly by the medical group practices, not the physicians or the facility. Mid-level practitioners are the first line of contact. Some mid-level practitioners are there as often as four days a week, some weekly, some twice a month, and some once a month.

She did not have extensive knowledge of other practice models in the community, but she felt that the model she works in is very efficient. She indicated that the Evercare system works extremely well with this frail, elderly population and during the past 10 years, has decreased hospitalization rates. She indicated that nursing staff have an excellent relationship with the physicians and, as a consequence, physician turnover at this facility is very low and generally only occurs when a physician retires. Liability was not indicated as a primary concern for physicians or staff.

FACILITY 7 -- THE CLOSED PHYSICIAN PRACTICE MODEL

This facility, located in New York, was selected to investigate a closed physician practice model where the physicians are employed by the facility and only the six physicians on staff are permitted to care for patients there. All of the six physicians are geriatricians and the facility serves as a training site for geriatric fellows. There are 15 units with 40 beds each. Discussions were completed with the nursing home administrator, medical director, social worker, director of nursing and nurse manager. Discussions were not held with a physician, other than the medical director.

Nursing Home Administrator: The administrator stated that the facility is "blessed with all geriatricians" who bring a commitment to aging and medical issues specific to geriatrics. The administrator felt that, ultimately, good care depends on the commitment of the individual physicians and how responsive they are to their patients. He stated that patients were very rarely dissatisfied with the practice model, and he could not recall a patient requesting another physician. The physicians each spend approximately 40 hours per week in the facility, and the staff is very stable with a very low turnover of physicians.

Director of Nursing: The director of nursing is an advocate of the closed model practice. She noted that requests to change physicians are very rare and, when they do occur generally are not due to concerns about care but rather differences in personality types. Her biggest concern about the closed, teaching practice model was that because it is the site for teaching, the physicians-in-training tend to utilize more resources -- as if the patients were in an acute hospital. This is a concern because it increases the cost of care. She also added that concerns about liability lead to high utilization of laboratory testing.

Social Worker: The social worker has a small caseload of about 10 patients. The role of this social worker is to facilitate communication between family and staff, and to be involved with various facility committees. The social worker is very involved with physicians and mid-level practitioners in the facility and often coordinates meetings to

discuss patient issues or concerns. The social worker felt that it was easy to communicate with attending physicians regarding patient issues. All physicians are on staff so there is little to no concern about being able to contact a physician. The social worker felt that physicians have too many patients, but she did not feel that this caseload affects patient care. Patients and families are very satisfied with accessibility of physicians and extenders.

Medical Director: The medical director, who is fellowship trained in geriatrics, spends 10 hours per week caring for approximately 120 patients and 8-10 hours per week in the medical director role. He reported that litigation is a concern because it increases testing and interventions. He reported feeling pressure to hospitalize patients because of concerns about malpractice. The facility has had difficulty finding coverage for the medical director role. Additionally, it has been difficult to find physicians, but now there are enough physicians because of the facility's connection to the geriatric training fellowship program.

The medical director believed a closed system is optimal, resulting in high quality delivery of care. He also believed that quality in the facility improves when a nursing home functions as a training site for medical residents and nurse practitioners. He estimated that the necessary volume to generate income in a closed system is 200-300 patients per physician/nurse practitioner team. In general, he noted that physicians do not understand reimbursement in nursing homes and that if they take the time to learn and bill appropriately Medicare reimbursement is adequate.

Nurse Manager: The nurse manager listed two positive aspects of this facility's closed practice model: (1) the physicians are very current on geriatric practices, and (2) there is a physician whose primary responsibility is reducing unnecessary hospital admissions. In contrast, she indicated that the physicians-in-training are just learning to practice themselves and, occasionally, make decisions that reflect their inexperience in the elderly population such as ordering sedating medications that are associated with falls in the elderly. She felt the ideal model of practice would be to have one physician in the facility all day long, a "Doctor's Day." She indicated that she prefers knowing the physicians will be there for a few hours so she can communicate with them. She felt this also would improve communication with patients and families. The current mechanism for interacting with the physicians is through a communication logbook.

The nurse manager felt that liability concerns affect the way all of the physicians practice, particularly with regard to hospitalization. The doctors recognize how hazardous a hospitalization can be for a patient and they do everything they can to avoid it. However, they sometimes hospitalize simply to please a family member who they fear may become litigious.

FACILITY 8 -- THE NURSING HOME SPECIALIST MODEL

Facility 8, in Texas, was selected to represent a practice model where physicians perform nursing home care exclusively and are "specialists" in that area. The majority of patients in this 120-bed facility are seen by a group of physicians who practice exclusively in nursing homes. An administrator, director of nursing, social worker, medical director, physician and dietitian participated in the stakeholder discussions.

Nursing Home Administrator: Three geriatricians who specialize in providing nursing home services provide most of the physician services in this facility. The American Medical Directors Association also certifies two of the three as nursing home medical directors. The nursing home administrator stated that she has noticed a difference in nursing home physicians who are geriatricians and other physicians and, therefore, she will grant privileges to practice in the facility to only physicians who are trained as geriatricians. She believes that geriatricians, in contrast to other physicians, are better able to address geriatric issues, such as falls, incontinence, failure to thrive, and agitated behaviors, such as those observed in demented residents. This facility has no difficulty in finding geriatric-trained physicians who are willing to practice in this facility because of the specialty nursing home group who only hires geriatric-trained physicians to work in the group. The administrator's major concern about physician practices in nursing homes is that physicians are forced to practice defensive medicine due to concerns about litigation. This results in ordering many tests and procedures that may be of very low yield instead of focusing on management of symptoms, which may impact the quality of the residents' lives, and be a much greater yield from a patient perspective.

Director of Nursing: The director of nursing noted that physicians who specialize in caring for nursing home patients hospitalize at a much lower rate than the doctors who do not care exclusively for nursing home residents. She explained that nursing home residents rarely change physicians. However, on the rare occasion when they do request a different physician, it is because they are concerned that the frequency of physician visits is not sufficient.

To improve physician services in this nursing home, the director of nursing suggested more on-site time from either a nurse practitioner or a physician. She believes that communication between the physician and nursing home nurses also needs to improve because the nurses often do not know about the physician's impression of the patient or the issues that were addressed during their visits because of sparse verbal and written documentation.

Social Worker: The social worker interacts daily with the nurse practitioners and physicians. Although it is sometimes difficult to set up meetings with physicians, the social worker does feel that the physicians are in the facility often enough, and she is not concerned that they see too many patients. She supported her argument that the specialist physician model is optimal by reporting that the majority of residents and families are satisfied with the medical care the residents are receiving. She did not

express concerns about the frequency of physician visits or the quality of physician care.

Medical Director: The medical director has training in internal medicine, geriatrics, palliative care and is an AMDA certified medical director. He is a part of a large group of 15 physicians who are each paired with one of three nurse practitioners. He is an exclusive nursing home doctor with no office patients.

The most influential factor on his practice is malpractice. His group practice employer has changed insurers at least three times in the past six years. He reported that the fear of litigation increases unnecessary testing and interventions. There is an adequate supply of physicians in his area. He sees approximately 15 patients per day, and estimates that to cover the costs of running his practice, he would need to see approximately seven patients per day. He considers the ideal training for nursing home specialists to be a geriatric fellowship and the American Medical Directors Association's certification in medical directorship program. He values nursing home practice because it allows practice freedom and he feels he has the ability to do more for patients than in other care settings.

Physician: The physician was pleased with the nursing home specialist care model and has found that focusing only on the care of nursing home patients is a more efficient way to care for these patients. He felt that he can be more attuned to the specific characteristics of each facility and can streamline his practice by devoting one half-day each week to a specific home. He believed that using nursing home specialists to care for nursing home residents is an ideal practice model, and he has noticed the model growing in popularity in his community.

Dietician: The dietitian at this facility indicated that the physicians spend an average of 16 hours per week in the facility, and that she has no concerns about physicians' services in her facility. She felt that the specialist nursing home model works very well and is the only model of care she would work with. It is the ideal physician practice model because it ensures that the physicians are accessible, easy to communicate with, knowledgeable about geriatrics and specifically nursing home geriatrics, and accepting of all medical disciplines in nursing homes. They have daytime availability that is important for communication with interdisciplinary teams and with family members. She noted that the families frequently express their appreciation of physicians visiting during the daytime because the family members are often elderly and prefer to visit the facility during the daylight hours also.