

**THE ONTARIO NURSE PRACTITIONER
IN LONG-TERM CARE FACILITIES PILOT PROJECT**

**INTERIM EVALUATION
FINAL REPORT
FEBRUARY 23, 2002**



**EVALUATION CONSULTANTS:
PAUL STOLEE, PH.D.
LORETTA M. HILLIER, M.A.**

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“I had a fellow, this is not too long after I started, he was in a rural facility. He fell and had a major laceration. He was blind and deaf; his cognition was impaired. And so they called the hospital, the local hospital, and they said there’s no doctor bring him in, in a couple of hours. Well by that time it would be 8:00 am and I could be there. So they called me. I went to the hospital. I got the equipment that I needed to do the suture. The hospital was more than happy to give it to me because the last time he had had to go into hospital it took five staff, so the ambulance arrived from this rural facility and it would probably be 15 or 18 miles to the hospital. Five people it took to hold him down and then another ambulance ride back. Plus he was upset for days and it created all kinds of problems for the long-term care facility. So you can picture this. So what happened instead was, I went to the hospital, got the stuff, drove out to the facility, and the nursing staff was on, and we put him in his own bed and said as best we could communicate with him that we were going to fix his head, and he very quietly lay down while I put in all the sutures we needed to. So, there was no ambulance ride, no emergency visit, no five staff holding him down, no long term consequences, five minutes later he was up walking around like he normally did and basically no unusual behaviors, no major concerns for anybody.”

- a Nurse Practitioner working in a Long-Term Care Pilot Project

BACKGROUND

In March 1999, the provincial government announced a pilot project to introduce primary health care Nurse Practitioners into long-term care facilities, as part of the government's response to the Provincial Nursing Task Force Report *Good Nursing, Good Health - An Investment for the 21st Century*. Subsequently, in 2000, the Ontario Ministry of Health and Long-Term Care funded 20 full-time Nurse Practitioner positions in long-term care as part of a larger provincial Nurse Practitioner initiative. This initiative has also provided funding for an additional 76 positions for under-serviced areas, five positions for aboriginal health centres, and five positions for primary care networks. The pilot project was scheduled to be two years in duration, from July 1, 2000 to June 30, 2002, but has been extended to March 30, 2003.

The participating projects represent municipal homes, charitable homes, profit, and not-for-profit homes. Each is unique in their partnerships (including Community Care Access Centres, outreach programs, the Alzheimer Society, and other partners), number of facilities involved (ranging from 1 to 18), number of residents (ranging from 65 to 600), and specified focus (e.g., primary health care, management of behavioural and psychogeriatric problems).

This report describes the methods and results of an interim evaluation of the Nurse Practitioner initiative in long-term care.

EVALUATION OBJECTIVES AND METHODS

The main objectives of this evaluation were:

- 1) to describe the major roles and activities of the Nurse Practitioners involved in the long-term care pilot projects (including their linkages with community agencies;
- 2) to identify factors and elements that facilitate, or pose barriers to, the successful implementation of a Nurse Practitioner role in long-term care, with specific attention to the implementation of this role in under-serviced areas as well as Nurse Practitioner preparation for work in long-term care; and
- 3) to identify potential positive and negative outcomes of the nurse practitioner pilot projects.

A number of sources of information were used to inform this evaluation:

- i) *Document review*: A review of background documents and project descriptions, including the project summaries provided in the "Knowledge Bank" on the project website.

- ii) *Focus group interview with Nurse Practitioners:* A focus group interview was conducted, via telephone, with Nurse Practitioners working in the pilot project.
- iii) *Site visits:* Site visits were carried out at three sites purposefully selected to represent varying geographical regions and locations (urban vs rural), facility size, and partnership situations. During these visits, a total of 18 individual interviews were conducted with Administrators, Directors of Care, Medical Directors, physicians, registered nurses, and Nurse Practitioners.
- iv) *Individual interviews with other key informants:* Individual interviews were conducted, via telephone, with key informants including Ministry of Health and Long-Term Care Compliance Advisors and representatives of community organizations and agencies.
- v) *A survey of Nurse Practitioner work activities:* This survey, suggested by the Nurse Practitioners themselves, was carried out to get a “snap shot” of the Nurse Practitioners’ workload over the course of a week.

Information through the focus group, site visit interviews, and other individual key informant interviews was gathered from all seven regions of the province, as defined by the Ministry of Health and Long-Term Care.

MAJOR EVALUATION FINDINGS

Major Roles and Activities of the Nurse Practitioners in the Long-term Care Pilot Project

- Nurse Practitioners have assumed a wide scope of practice activities.
- Responsibilities vary across facilities and projects depending upon resident needs, physician preferences, service agreements, and the presence of established programs (e.g., immunization clinics), and on-site specialists (e.g., wound care specialists).
- Their clinical activities are varied and include the assessment and management of episodic and chronic illness, psychogeriatric assessments, palliative care, pain and symptom management, counseling with families and residents, and prevention initiatives (dehydration, falls, immunizations).
- They consult with community resources or partner agencies to meet resident’s treatment needs and facilitate access to High Intensity Needs funding.
- Nurse Practitioners are involved in various educational activities including bedside teaching and in-service programs on various topics relevant to resident care, teaching nursing courses at local community colleges, continuing education programs, preceptoring student Nurse Practitioners, involvement in curriculum development, serving as resources for multi-disciplinary teaching, and the development of specific treatment initiatives (e.g., wound care teams) for which they provide ongoing continuing education and clinical support.
- Professional development activities include conferences, workshops and courses to increase their level of expertise (e.g., psychogeriatrics, wound care, palliative care, and continence management), and involvement in professional associations ranging from general membership to active participation in administration and executive committees.
- Committee work such as organizational and strategic planning committees, wound care committees, and health professional advisory groups.

- Development, implementation and evaluation of care protocols, best practice guidelines, and new care procedures.
- Additional activities include presentations to various community groups about the role of Nurse Practitioners in long-term care (e.g., to Nursing and Medical Advisory Committees, local hospital committees, Rotary Clubs), media interviews about the Nurse Practitioner role, research studies and clinical trials, and staff recruitment.

Linkages with Community Agencies

- The extent to which Nurse Practitioners have been involved in community outreach has been dependent upon the terms of their service agreement, specific needs of the facility and community, and Nurse Practitioner workload and interests.
- Nurse Practitioners have been involved in many educational initiatives and have provided consultation to a variety of organizations.
- In general, Nurse Practitioner links with Community Care Access Centres are weak.
- Many opportunities for Nurse Practitioners to link with community agencies and organizations exist, but there is divided opinion about the emphasis that should be placed on these roles (such as collaboration with Community Care Access Centres on pre-admission assessments) because of the high Nurse Practitioner workload and their primary responsibilities for care of residents currently within the facilities.

Workload

- A very heavy workload is one of the main challenges facing the Nurse Practitioners in the pilot project.
- A heavy and complicated clinical workload challenges them to find time to conduct timely follow-up of specific resident problems; complete administrative documentation such as data collection, report preparation and letter writing; prepare for educational activities; attend committee meetings; and participate in outreach activities. This is compounded for Nurse Practitioners who cover more than one facility.
- A survey of work activities indicated that Nurse Practitioners consistently work in excess of 40 hours per week with over half of their time devoted to direct resident care. Few Nurse Practitioners take regularly scheduled breaks throughout the day and some work on weekends. They spend a great deal of time doing clerical work (average of 6 hours, but up to 11 hours, per week). There is concern that with the current workload, Nurse Practitioners are at risk for burn out.

The Implementation of Nurse Practitioner Roles in Long-Term Care: Facilitating Factors and Challenges

Factors Identified as Necessary for Facilitating New Nurse Practitioner Positions in Long-term Care

- There is strong support for permanent, full-time Nurse Practitioners in long-term care.
- Financial support is needed for an adequate salary, educational opportunities, equipment and resources, and adequate remuneration for physicians working in collaboration with Nurse Practitioners.
- It is critical to secure support for the Nurse Practitioner position from administrators, physicians, staff, residents and families, prior to a Nurse Practitioner starting a position in a long-term care facility.
- Ongoing education, networking, sharing of experiences, and mentoring (through mechanisms such as the regular Nurse Practitioner teleconferences and the project website) have been extremely valuable.
- Physician willingness to work in a fully collaborative relationship with Nurse Practitioners is essential for Nurse Practitioners to work to their full scope of practice.
- Education or marketing of the role of Nurse Practitioners in long-term care would be valuable to provide information on their qualifications, scope of practice, roles, responsibilities, and collaborative relationships, and on career opportunities for Nurse Practitioners in long-term care.
- There is a need for a clear recruitment plan for new Nurse Practitioners, particularly in under-serviced and remote areas.
- There is great potential for Nurse Practitioners in long-term care to be pulled in many different directions and to be overwhelmed with any of a number of clinical or educational challenges. There is a corresponding need for an appropriate program model that provides clear guidelines, expectations and priorities for the Nurse Practitioner role, keeping in mind the need for flexibility depending on the needs of a particular facility.
- A reasonable workload was identified as essential for Nurse Practitioners to work effectively and efficiently. It was recommended that the ratio of Nurse Practitioner to facility should be 1:1, but no greater than 1:3; or one Nurse Practitioner per 200 - 300 residents at a maximum - but this should vary based on the number of facilities covered and their unique needs and geographical locations.

Challenges for Nurse Practitioners Working in Long-Term Care

- A very heavy workload is the major challenge for Nurse Practitioners working in long-term care. This workload compromises their ability to do their jobs efficiently across facilities, to provide adequate follow-up, to establish collaborative relationships, and to participate in non-direct resident care activities.
- Additional challenges are:

- establishing collaborative relationships when there is hesitation or resistance, and a need to address fears and lack of knowledge of the role
- system-wide problems in long-term care, including a lack of resources, the increasingly complicated health care needs of residents, and support staff issues
- limitations to work activities imposed by legislation that does not recognize the full scope of Nurse Practitioner practice, by agencies that do not accept referrals from Nurse Practitioners, and by limitations in the medications they are able to prescribe.
- The specialized and increasingly complex care needs of the residents in long-term care require a specialized expertise beyond that provided currently by the Nurse Practitioner curriculum. Key informants reported that in addition to a good knowledge of the assessment and treatment of episodic, chronic, and co-morbid illnesses, Nurse Practitioners require training at an expert level in palliative care (including ethical issues), pain and symptom management, wound care, psychogeriatrics (PIECES training), pharmacology specific to geriatrics, continence management, behaviour management, and counseling with families.

Under-serviced Areas

- There are great opportunities for Nurse Practitioners to work to their full scope of practice in under-serviced areas
- Nurse Practitioners in under-serviced areas experience challenges related to limited access to medical supports and educational resources, excessive workload, and isolation.
- It is difficult to recruit Nurse Practitioners to work in remote or under-serviced areas.
- Suggestions to facilitate the work of Nurse Practitioners in under-serviced areas include:
 - providing physicians adequate remuneration for consulting in these areas;
 - increasing funding to recruit and support those working in under-serviced areas; and
 - educational opportunities and the use of technology (computer access, videoconferencing) for education and specialist consultation.
- The long-term care sector as a whole is seen as under-serviced.

Program Evaluation

- Key informants perceived program evaluation as critical for assessing the success of, and improving the use of, Nurse Practitioners in long-term care.
- There was concern that the proposed overall, end-of-project provincial evaluation will not provide valid information.
- Informants expressed concern that outcome variables or quality indicators were not defined so that data necessary for a thorough evaluation could have been gathered throughout the projects. They are also concerned that a primarily quantitative evaluation will not provide an in-depth understanding of the Nurse Practitioner role or related issues.

Positive Outcomes and Potential Concerns of the Nurse Practitioner Pilot Project

Positive Outcomes

The following positive outcomes were identified:

- Improved quality of resident care:
 - general improvement in the level of care
 - increased resident access to resources
 - timely access to medical care
 - continuity of care for residents
 - more appropriate use of medications
 - improved discharge planning
- More efficient use of physician expertise and time, with the potential benefit that this will increase physician satisfaction and help to attract and retain physicians to work in long-term care.
- Improved use of acute care facilities as the number of transfers to hospitals are reduced and hospital resources are used more efficiently (e.g., emergency departments are not used to access diagnostic testing)
- Improved communication with residents and families as Nurse Practitioners are able to spend more time on educating and counseling.
- Improved skill level of staff as the Nurse Practitioners model and teach assessment skills, introduce evidenced-based or new care approaches, and provide formal and informal opportunities for continuing education.
- Improved communication between long-term care facilities and community agencies as Nurse Practitioners act as a liaison to discuss and resolve any concerns about meeting the needs of residents being admitted into long-term care.

Potential Concerns

No negative outcomes of Nurse Practitioners working in long-term care were identified. One issue was identified as a potentially major concern - that of a possible impact on physician remuneration as a result of their collaborative relationship with Nurse Practitioners.

RECOMMENDATIONS

Based on the findings of this interim evaluation, the following recommendations are suggested:

- Preparation should be made for the possible continuation and expansion of Nurse Practitioner positions in long-term care, following the end of the pilot project period. If a decision is made to continue this initiative, any delays in implementation could be seriously disruptive to the long-term care facilities currently involved in the project. Moreover, the Nurse Practitioners currently in the project could find employment elsewhere, thus losing the knowledge and expertise they have gained during the pilot period.

- If future programs for Nurse Practitioners in long-term care are approved, their development should be guided by an Expression of Interest or Request for Proposal, or a similar process, so that goals, partnerships and linkages are well formulated and support for the Nurse Practitioner's role is secured.
- There should be continued support for Nurse Practitioners in under-serviced areas. The role of Nurse Practitioners in long-term care is a good illustration of the potential benefits in a less well-resourced sector of the health system. Under-serviced areas provide good opportunities for Nurse Practitioners to work to the full scope of their practice.
- Funding should be provided for adequate remuneration of Nurse Practitioners. Determination of an appropriate salary and benefits package should be made in consultation with Nurse Practitioner and nursing associations (e.g., RNAO).
- Additional funding should be made available for:
 - equipment and resources necessary for Nurse Practitioners to meet the unique needs of the facilities in which they work. Nurse Practitioners should have some control over this funding.
 - educational opportunities to improve knowledge and skills in areas relevant for the facilities in which they work.
 - clerical and administrative support (data collection, letters, reports, etc).
- Provision should be made for continuing the networking opportunities for Nurse Practitioners (such as those facilitated by the project education consultant, including the project website and regular teleconferences), so that they can work together to share experiences, discuss issues of mutual concern, brainstorm common solutions, address challenges, and provide mutual support.
- The introduction of Nurse Practitioners in long-term care has an impact on the work of physicians practicing in long-term care and issues related to collaborative relationships with physicians will need to be addressed. Resolving issues related to remuneration and "on-call" activities and addressing any concerns that physicians have about establishing or working in collaborative relationships with Nurse Practitioners are critical to the success of this program. The effectiveness of Nurse Practitioners is significantly compromised when physicians do not support this program and are unwilling to work collaboratively with Nurse Practitioners. Further in-depth investigation of the specific factors, issues, and concerns that impede collaboration is needed so that a plan to work with partners to strengthen working relationships can be developed.
- A working model or job description consisting of clear guidelines for Nurse Practitioner roles and responsibilities should be developed. A process for identifying priorities and role delineating boundaries should be developed, recognizing the need for flexibility to take into

account the unique needs of each facility, the expertise and interests of the Nurse Practitioner, and that allows for a reasonable workload.

- A program model for Nurse Practitioners should describe an appropriate Nurse Practitioner to resident/facility ratio that is guided by the needs and priorities of the facilities and geographical distances. It is difficult to extrapolate from this pilot project, because there was considerable variability in goals and emphases across projects. Key informants interviewed in this evaluation suggested that the ratio of Nurse Practitioner to facility should be 1:1, but not greater than 1:3, or one Nurse Practitioner per 200-300 residents. There was also a feeling that with increased numbers of residents or facilities, Nurse Practitioners become less effective. In the study reported by Burl and colleagues (1998), each Nurse Practitioner followed approximately 110 residents across one to three facilities. In their description of the EverCare Nurse Practitioner program in the United States, Kane & Hucks (2000) report that the number of residents per Nurse Practitioner ranges from 66 to 110; each Nurse Practitioner has one or two homes.
- Nurse Practitioners can and should have a key role in linking with specialized or consultative resources (such as Regional Geriatric Programs or psychogeriatric consultants), with educational initiatives (such as PIECES, and including collaboration with in-house psychogeriatric resource persons), and with best practice initiatives (such as the RNAO's Best Practice Guidelines project or the Long Term Care Best Practice Resource Centre being developed in Central South Ontario). Nurse Practitioners are in a good position to facilitate adherence to consultative recommendations and to translate research evidence and educational information into everyday practice. Encouragement of Nurse Practitioners in this role could have major benefits for the success of other initiatives aimed at improving the quality of long-term care.
- The fully informed support of administrators, physicians, and facility staff needs to be secured to facilitate new positions. There should be some collaboration between the Ontario Ministry of Health and Long-Term Care and Nurse Practitioner and nursing associations to promote the role of Nurse Practitioners in long-term care facilities, community agencies, acute care facilities, and the general public.
- Education or marketing on the role of Nurse Practitioners in long-term care would be valuable to provide information on their qualifications, scope of practice, roles, responsibilities, and collaborative relationships, and on career opportunities for Nurse Practitioners in long-term care.
- A strong recruitment plan should be developed to interest Nurse Practitioners to work in long-term care and to work in under-serviced and remote areas. Emphasis should be placed on the opportunities to work to their full scope of practice, and on networking and educational opportunities. A special recruitment plan involving educational assistance is necessary for remote areas. It may be beneficial to work with or collaborate with those

currently involved in trying to recruit physicians to work in remote areas. (A collaborative relationship with a Nurse Practitioner may be an incentive for physicians).

- The Nurse Practitioners in this pilot project could act as consultants and mentors in the development and implementation of new projects related to Nurse Practitioners in long-term care, particularly strategies for facilitating collaborative relationships.
- Limitations to the Nurse Practitioner scope of practice imposed by legislation (Public Hospitals Act and Long-Term Care Act) as well as other government and community agency policies should be assessed.
- Additional training in issues relevant to geriatrics is needed to better train Nurse Practitioners to work with a growing elderly population, both in the community and in long-term care facilities. Strategies to address this should include recommendations to the Council of University Programs in Nursing (COUPN). Nurse Practitioners in the pilot project could act as consultants for identifying specific needs and how to best address these.

1.0 Background and Introduction

In March 1999, the Ontario provincial government announced a pilot project to introduce primary health care Nurse Practitioners into long-term care facilities, as part of the government's response to the Provincial Nursing Task Force Report - *Good Nursing, Good Health - An Investment for the 21st Century*. Subsequently, in 2000, the Ontario Ministry of Health and Long-Term Care funded 20 full-time Nurse Practitioner positions in long-term care as part of a larger provincial Nurse Practitioner initiative. This initiative has also provided funding for an additional 76 positions for under-serviced areas, five positions for aboriginal health centres, and five positions for primary care networks. The pilot project was scheduled to be two years in duration, from July 1, 2000 to June 30, 2002, but has been extended to March 30, 2003.

In October 1999, a request for Expressions of Interest ("Expression of Interest and Qualification for Nurse Practitioners In Long-Term Care Facilities Pilot Project") was distributed. Successful applications for the pilot project could be individual long-term care facilities, long-term care facility and community agency partnerships, or a consortium of long-term care facilities. Eligibility criteria included: use of Nurse Practitioner full scope of practice, 24 hour - 7 days a week Registered Nurse coverage, physician and nursing staff collaboration and support, and willingness to participate in pilot project orientation and evaluation. Other eligibility factors included Nurse Practitioner involvement in the development of the proposal, collaboration with the Under-serviced Areas Project and partnering with other community agencies (e.g., Community Care Access Centres, community health centres).

The Expression of Interest process resulted in the acquisition of 80 proposals. Twenty proposals were selected for participation in the pilot project. Only seventeen of these projects are participating; three projects, located in Northern Ontario, were unable to recruit a Nurse Practitioner. A list of the participating projects is presented in Appendix A. The participating projects represent municipal homes, charitable homes, profit, and not-for-profit homes. Each is unique in their partnerships (including Community Care Access Centres, outreach programs, the Alzheimer Society, and other partners), number of facilities involved (ranging from 1 to 18), number of residents (ranging from 65 to 600), and specified focus (e.g., primary health care, management of behavioural and psychogeriatric problems).

The Nurse Practitioners participating in this pilot project are nurses who are registered with the College of Nurses of Ontario in the Extended Class. According to an amendment to the Nursing Act, Bill 127: The Expanded Nursing Services for Patients Act (1998), Registered Nurses in the Extended Class are able to perform specified diagnostic and treatment related activities within an interdisciplinary health care team. Nurse Practitioners have the authority to independently perform three controlled acts: communicating a diagnosis of a disease or disorder, ordering diagnostic ultrasound, and prescribing a limited range of drugs. Amendments to other acts have

also given Nurse Practitioners the authority to order specific diagnostic tests (e.g., x-rays, laboratory tests, electrocardiograms, spirometry) and treatments (e.g., respiratory therapy), and to sign medical certificates of death.

In the long-term care pilot project, Nurse Practitioners are expected to work collaboratively with physicians and other health care providers to provide primary health care services to residents in long-term care facilities. Within the full scope of their practice, Nurse Practitioners are to develop, implement, and evaluate a resident's plan of care. Secondary roles of the Nurse Practitioner can include that of consultant, educator, leader, and advocate. Detailed descriptions of these roles are reported elsewhere (Nurse Practitioner in Long-Term Care. Role Description; June 10, 2000).

A project website was established (address: <http://npltc.medix.ca>) to facilitate communication among the participating projects. The website provides detailed descriptions of each of the projects and regular updates on their progress.

An overall evaluation is planned for the provincial Nurse Practitioners initiative. In July 2000, a framework for the provincial evaluation was completed by the Thames Valley Family Practice Research Unit; a research team is to be selected to conduct this evaluation.

This report describes the methods and results of an interim evaluation of the Nurse Practitioner initiative in long-term care.

2.0 Evaluation Approach and Methods

2.1 Objectives

Consultation with representatives from the Ontario Ministry of Health and Long-Term Care identified the following main objectives for the interim evaluation:

- i) to describe the major roles and activities of the Nurse Practitioners involved in the long-term care pilot projects (including their linkages with community agencies);
- ii) to identify factors and elements that facilitate, or pose barriers to, the successful implementation of a Nurse Practitioner role in long-term care, with specific attention to the implementation of this role in under-served areas as well as Nurse Practitioner preparation for work in long-term care; and
- iii) to identify potential positive and negative outcomes of the nurse practitioner pilot projects.

2.2 Methods

The following data collection methods were used in the evaluation:

i) Document Review

A review of background documents and project descriptions, including the project summaries provided in the Knowledge Bank on the project website: <http://npltc.medix.ca/> was conducted to describe nurse practitioner roles and activities and to guide subsequent data collection activities. A summary of the website project summaries are attached in Appendix B. A review of background documents was conducted to identify strategies for successful implementation, issues and challenges, and outcomes for Nurse Practitioners working in long-term care. A summary of these documents is attached in Appendix C. The documents reviewed were:

- Nurse Practitioner in Long-Term Care Annual Report (September 2001)
- Registered Nursing Association of Ontario (RNAO) Final Report to the Minister of Health and Long-Term Care on the Orientation Program to Support Implementation of Nurse Practitioners in Long-Term Care Facilities Pilot Project
- Documents from the Nurse Practitioner in Long-Term Care Orientation and Networking Session, September 2000, including Idea Café Results and panel discussions
- Nurse Practitioner in Long-Term Care Role Description.

ii) Focus Group Interview with Nurse Practitioners

A focus group interview was conducted with Nurse Practitioners working in the pilot project. This focus group interview was conducted via teleconference because the distances involved precluded in-person interviews and because this format is regularly used for communication among the nurse practitioners. All Nurse Practitioners were invited to participate in the focus group (a list of all the Nurse Practitioners in the pilot project is presented in Appendix A). In addition to the 17 Nurse Practitioners involved in this pilot project, one of the Nurse Practitioners practicing in an under-serviced area project was invited to participate in the focus group. This Nurse Practitioner works in long-term care facilities as part of her position and participates in the mentoring and supportive activities of the Nurse Practitioners in this project (including monthly teleconferences). Her input was sought because of her experience practicing in long-term care facilities within an under-serviced area in the northern region of the province. Twelve (71%) of the Nurse Practitioners participated in the teleconference, representing an equal geographic distribution across the pilot projects in the province.

The evaluation questions used to guide the focus group interview are attached in Appendix D.

iii) Site visits

Site visits were carried out at three purposefully selected representative sites, with key informant interviews of Nurse Practitioners, Administrators, Directors of Care, physicians, and nursing staff. These interviews provided in-depth information on activities, issues and outcomes associated with the nurse practitioner role and offered an opportunity to gather specific details related to more general issues identified in the teleconference. The same interview guide used for the Nurse Practitioner focus group interview was used for these interviews (See Appendix D).

The three projects sites were selected to represent varying geographical regions and locations (urban and rural), facility size, and partnership situations. Interviews were conducted at the following sites:

Community Partners, Lambton County: This project represents a partnership between seven long-term care facilities and is overseen by a board composed of representatives (either administrator or director of resident care) from each of the seven participating long-term care facilities and one medical director who is director at two facilities (A list of the facilities within this project is presented in Appendix A). Between 38 and 126 residents live in these facilities (total N = 600). Interviews were conducted at Watford Nursing Home & Marshall Gowland Manor.

Avalon Care Centre and Dufferin Oaks Home for the Aged: This project represents a partnership between two long-term care facilities located in a rural and under-served area: Avalon Care Centre (Orangeville) and Dufferin Oaks Home for the Aged (Shelbourne); these facilities have 139 and 165 residents, respectively. Interviews were conducted at Avalon Care Centre.

Castleview-Wychwood Towers & Albion Lodge: This project was initially a partnership between two facilities located in Toronto: Castleview-Wynchwood Towers and Albion Lodge, both of which are municipally owned homes for the aged. In January 2002, an additional Nurse Practitioner was hired by the City of Toronto and a third facility was added to this project: Lakeshore Lodge. At Castleview-Wychwood Towers, the Nurse Practitioner is responsible for two units: a 19 bed unit for cognitively intact residents under 65 years with varying diagnoses and a 37 bed unit for residents with high risk exit seeking behaviors and various dementias. Castleview-Wychwood Towers has a total of 456 residents. Albion Lodge has 98 residents. Interviews were conducted at Castleview-Wychwood Towers

Individual interviews were conducted with long-term care facility Administrators (N = 4; 3 representing long-term care facilities, 1 representing an acute care facility), Directors of Care (N = 4; in one instance two Directors of Care were interviewed together), Medical Directors (N = 1), Attending Physicians (N = 3), long-term care facility Registered Nurses (N = 3), and Nurse Practitioners (N = 3). A list of all key informants is attached in Appendix E. A detailed summary of the results of the focus group and key informant interviews is attached in Appendix F.

iv) Individual interviews with other key informants

Individual interviews were conducted, via telephone, with key informants representing Ministry of Health and Long-Term Care Compliance Advisors (N = 3) and community organizations and agencies (N = 2); (See Appendix D). Although we were able to interview one representative from a Community Care Access Centre (CCAC) who had links with a Nurse Practitioner in the pilot project, almost all project participants contacted felt that their project did not have strong enough linkages between the Nurse Practitioner project and CCACs to be able to provide useful information on issues related this relationship.

v) Survey of Nurse Practitioner work activities

A survey of Nurse Practitioner work activities, with a focus on time commitments, was conducted. High workload was consistently identified by key informants as the main challenge faced by Nurse Practitioners working in the long-term care pilot project. The objective of this survey was to get a “snap shot” of the Nurse Practitioners’ workload over the course of a week.

Such a survey was suggested by the Nurse Practitioners in the focus group interview and their input was used in the design of the form. The survey is attached in Appendix G.

Information through the focus group, site visit interviews, and other individual key informant interviews were gathered from all seven regions of the province, as defined by the Ontario Ministry of Health and Long-Term Care.

3.0 Evaluation Results

3.1 MAJOR ROLES AND ACTIVITIES OF THE NURSE PRACTITIONERS IN LONG-TERM CARE PILOT PROJECT

Key Findings:

- Nurse Practitioners have assumed a wide scope of practice activities.
- Responsibilities vary across facilities and projects depending upon resident needs, physician preferences, service agreements, and the presence of established programs (e.g., immunization clinics), and on-site specialists (e.g., wound care specialist).
- Their clinical activities are varied and include the assessment and management of episodic and chronic illness, psychogeriatric assessments, palliative care, pain and symptom management, counseling with families and residents, and prevention initiatives (dehydration, falls, immunizations).
- They consult with community resources or partner agencies to meet resident's treatment needs and facilitate access to High Intensity Needs funding.
- Nurse Practitioners are involved in various educational activities including bedside teaching and in-service programs on various topics relevant to resident care, teaching nursing courses at local community colleges, continuing education programs, preceptoring student Nurse Practitioners, involvement in curriculum development, resources for multi-disciplinary teaching, and development of specific treatment initiatives (e.g., wound care teams) for which they provide ongoing continuing education and clinical support.
- Professional development activities include conferences, workshops and courses to increase their level of expertise (e.g., psychogeriatrics, wound care, palliative care, and continence management), and involvement in professional associations ranging from general membership to active participation in administration and executive committees.
- Committee work such as organizational and strategic planning committees, wound care committees, and health professional advisory groups.
- Development, implementation and evaluation of care protocols, best practice guidelines, and new care procedures.
- Additional activities include presentations to various community groups about the role of Nurse Practitioners in long-term care (e.g., to Nursing and Medical Advisory Committees, local hospital committees, Rotary Clubs), media interviews about the Nurse Practitioner role, research studies and clinical trials, and staff recruitment.

The Nurse Practitioners in the long-term care pilot project have assumed a wide range of practice activities. The responsibilities they assume vary across facilities and projects depending upon resident needs, physician preferences (e.g., some have expressed a preference for conducting

their own admission physicals) and Nurse Practitioner service agreements with facilities (e.g., one Nurse Practitioner is associated with the Behaviour Urgent Services and primarily accepts referrals for psychogeriatric assessments). Nurse Practitioners tend not to assume responsibility for activities that are within the scope of their practice but for which there are already well established programs (e.g., immunization clinics) or on-site specialists (e.g., wound care specialists). The nature of their roles and activities are evolving as they attempt to meet the unique needs of their facilities, as they develop collaborative relationships with medical, nursing, and support staff, as well as with the local community, and as new opportunities arise. In general, the Nurse Practitioners are all involved in clinical and educational activities, professional development, community outreach, and other specific activities based on their personal expertise and interest and the needs of their facilities. A detailed summary of Nurse Practitioner activities, as reported in the project website (<http://npltc.medix.ca>) is attached in Appendix B.

3.1.1 Clinical Practice

Since the start of this pilot project, Nurse Practitioners report that their ability to work to their full scope of practice has increased. Initially, their practice was primarily focussed on specific activities, such as assessment and management of episodic illness, wound care, and behaviour management, but their range of clinical activities has broadened as physicians, staff, residents, families, and the community have become more knowledgeable and comfortable with the extended functions that Nurse Practitioners are capable of assuming, and as collaborative working relationships are established. Nurse Practitioners in long-term care are now assuming a wide range of responsibilities, including but not limited to:

- the assessment (including ordering appropriate diagnostic tests) and management (including prescribing appropriate medications) of episodic and chronic illness
- mental health issues
- cognitive impairment
- general decline (decreased mobility, decreased functioning)
- challenging behaviours
- palliative care
- pain and symptom management
- ear syringing
- wound care
- bowel and bladder incontinence management
- hydration programs (intravenous, hypodermoclysis)
- counseling with families and residents
- prevention initiatives (dehydration, falls, immunizations).

Some Nurse Practitioners are now signing death certificates. Two Nurse Practitioners have been granted courtesy privileges at a local hospital and another has been given access to medical information on hospitalized residents and those who have applied for admission, giving the

Nurse Practitioners the opportunity to follow residents while in hospital and to provide timely information to facility staff and families.

Nurse Practitioners consult with physicians, staff, community resources, and partner agencies (e.g., Community Care Access Centres, Alzheimer Society) as necessary regarding treatment plans. They also interact with families, providing them with information about residents status, assessment results, and treatment planning. Many Nurse Practitioners are involved in accessing High Intensity Needs funding to support the provision of care for residents with complex and intensive treatment needs. For example, recommendations by Nurse Practitioners have secured advanced wound care products, emergency oxygen, and intravenous equipment. Many Nurse Practitioners attend resident care conferences.

All Nurse Practitioners report that they have established collaborative relationships with staff, interdisciplinary teams (e.g., nurses, occupational therapists, physiotherapists, dieticians, pharmacists) and physicians. These tend to vary in strength but are primarily positive and strong. (The importance of collaborative relationships in facilitating the Nurse Practitioner role will be discussed further later). It appears that for many Nurse Practitioners the strongest collaborative relationships are established with facility Medical Directors, with Nurse Practitioners being actively involved with the residents under the Medical Director's care, although they also receive referrals from other physicians within the facility. Several Nurse Practitioners report that some attending physicians do not want their residents referred to the Nurse Practitioner, preferring to assume full responsibility for their residents' care. Some attending physicians have limited the Nurse Practitioner involvement with their residents to specific activities (e.g., episodic illness assessment and management only). In general, the Nurse Practitioners report that referrals from physicians have increased since the onset of the pilot project and the number of physicians within facilities that refer residents to them has also increased. To facilitate collaborative working relationships, some Nurse Practitioners and physicians have worked together to develop guidelines or medical directives to address residents' acute care needs (e.g., diagnosis and treatment of bronchitis, hip injury, diabetes, congestive heart failure), with the goal of reducing delays in investigating and treating problems.

The manner in which Nurse Practitioners carry out their clinical responsibilities varies across facilities, usually dependent on the needs and preferences of physicians, staff and residents, and on the Nurse Practitioner workload. Some Nurse Practitioners attend rounds with physicians; others see residents independently. Methods of communication with facility staff vary across facilities, and include email, telephone, fax, notes, and formal and informal meetings. Nurse Practitioners who work in more than one facility have established a regular schedule of visiting each facility and have a process for physicians and staff to access Nurse Practitioner services.

3.1.2 Educational Activities

All of the Nurse Practitioners are involved in educational initiatives within their facilities to varying degrees. They have provided bedside teaching and in-service programs to nurses on various topics such as:

- wound care
- immunizations
- TB testing
- pain management
- psychogeriatric assessment
- behaviour management
- depression screening
- ostomy care
- catheter care
- skin care
- restraint use
- diabetes management
- IM injections
- constipation
- urinary incontinence
- urinary retention
- urinary tract infections
- respiratory assessment
- post-fall assessment
- hypodermoclysis
- G-Tube feeding
- intravenous use.

In providing bedside care to patients, Nurse Practitioners have the opportunity to model best practice strategies. Some Nurse Practitioners have initiated the development of specific treatment initiatives, such as palliative care programs, wound care teams, bowel management teams, or pain and symptom management, for which they provide ongoing continuing education and clinical support. Many of these educational initiatives are open to staff from long-term care facilities not participating in the Nurse Practitioner pilot project. One Nurse Practitioner is developing a resource library for Registered Nurses (RNs).

Some Nurse Practitioners have been involved in educational programs outside of their facilities, such as teaching nursing courses at local community colleges. Others have been involved in continuing nursing education programs, such as gerontology programs and the PIECES program, for which they provide training and study groups. Some Nurse Practitioners have been involved in preceptoring (mentoring and supervising) student Nurse Practitioners and have been involved

in curriculum development, serving as resources for multi-disciplinary teaching, and the development of a multi-disciplinary framework for preceptoring Nurse Practitioners, medical students and residents in long-term care facilities

3.1.3 Professional Development

While most of the key informants reported that the Nurse Practitioner curriculum provides a good foundation for primary health care, the specialized health care and psychological needs of the residents in long-term care require specialized training beyond that provided in the Nurse Practitioner program. (A more thorough discussion of the Nurse Practitioner curriculum will be presented later). All of the Nurse Practitioners in the pilot project have participated in professional development activities to increase their level of expertise. They have obtained additional training (through conferences, continuing education programs, and independent study) in areas such as psychogeriatrics, wound care, palliative care, and continence management. All of the Nurse Practitioners are involved with professional and charitable associations (e.g., nursing and geriatric associations, Osteoporosis Society, Alzheimer Society). Their involvement in these associations varies from general membership to active participation in administration and executive committees.

3.1.4 Additional Activities

In addition to their clinical activities and community outreach activities, Nurse Practitioners have engaged in a variety of work-related activities that promote the role of Nurse Practitioners in long-term care and that complement their skills and expertise. They have conducted presentations to various groups about the role of Nurse Practitioner in long-term care (e.g., to Nursing and Medical Advisory Committees, local hospital committees, Rotary Clubs), participated in media interviews about the Nurse Practitioner role, conducted special interest presentations to Family/Residents councils and community groups, and have participated in research studies and clinical trials. Within long-term care facilities, they have participated in various committees (e.g., organizational and strategic planning, amalgamation, palliative care, falls and restraints, restraint policy, wound care, infection control, health professional advisory, pharmacy and therapeutics committees, nutrition assessment, quality of care, and quality of work life) in which they have been involved in corporate policy development related to resident care, development, implementation and evaluation of care protocols, best practice guidelines, and new care procedures. Some Nurse Practitioners have been involved with staff recruitment (i.e., interviewing and selecting new facility staff). One Nurse Practitioner is a member of her regional District Health Council; another Nurse Practitioner is attempting to coordinate a Nurse Practitioner long-term care professional practice group in order to communicate issues and feedback to the Nurse Practitioner Association of Ontario (NPAO) and the College of Nurses.

3.1.5 Linkages With Community Agencies

Key Findings:

- The extent to which Nurse Practitioners have been involved in community outreach has been dependent upon the terms of their service agreement, specific needs of the facility and community, and Nurse Practitioner workload and interests.
- Nurse Practitioners have been involved in many educational initiatives and have provided consultation to a variety of organizations.
- Many opportunities for Nurse Practitioners to link with community agencies and organizations exist, but there is divided opinion about the emphasis that should be placed on these roles (such as collaboration with Community Care Access Centres on pre-admission assessments) because of the high Nurse Practitioner workload and their primary responsibilities for care of residents currently within the facilities.
- Although some Nurse Practitioners liaise with Community Care Access Centres to facilitate admissions to long-term care facilities, in general, links with Community Care Access Centres are weak.

Information from key informants and the documents reviewed for this evaluation demonstrate that the activities of the Nurse Practitioners have not been limited to the facilities in which they work, but have extended into their communities. (A detailed summary of their community outreach activities is located in Appendix B). Nurse Practitioner involvement in community outreach has been dependent upon the terms of their service agreement, specific needs of the facility and community, and Nurse Practitioner workload and interests. These activities utilize their nursing skills and knowledge to provide education and consultation to other health care providers, to participate in support groups for seniors in the community and their families, and to participate in specific treatment initiatives such as the development of region-wide standardized care protocols (e.g., wound care protocols). The Nurse Practitioners have been involved with activities such as:

- facilitating admission to and discharge from respite care and acute care facilities
- consultation with Community Care Access Centres regarding new admissions to long-term care
- consultation to community day programs
- local educational initiatives (e.g., wound care, stress management for health care providers)
- development of, or speaking to, support groups (e.g., Alzheimer's Disease family support groups)
- prevention programs (e.g., immunizations, falls)

- multi-agency or regional initiatives (e.g., health alliances, advocacy groups).

Many opportunities, beyond the community outreach they are currently involved with, were identified for Nurse Practitioners to link with community agencies, such as:

- working with psychogeriatric consultants, Regional Geriatric Programs and other consultative resources across the province
- working with Community Care Access Centres to conduct pre-placement assessments for residents with complex care needs
- acting as a liaison between long-term care facilities and community resources (e.g., Alzheimer Society), local hospitals, Emergency Departments, geriatric services, Acquired Brain Injury Programs, and other resources
- working on local health care related committees (e.g., local District Health Councils)
- teaching in psychogeriatric training programs (e.g., PIECES).

Some Nurse Practitioners and other key informants felt these are opportunities that could ultimately improve the quality of care that residents receive and should be explored further. Others felt that given there are few Nurse Practitioners in long-term care and their high workloads, caution was needed not to expand the Nurse Practitioner role to the point that it is “spread too thin” and the primary care of residents is negatively affected. Several informants commented on the need to use the expertise of the Nurse Practitioner wisely and to determine what job related activities were most appropriate and cost effective. For example, while several key informants suggested that Nurse Practitioners could work with their local Community Care Access Centres to assess admission applications for residents with complex care needs, others suggested that this is not a good use of Nurse Practitioner time and resources since it is the Community Care Access Centre’s responsibility to conduct thorough pre-placement assessments. An Administrator commented: *“We have lots of nurses that can easily do those assessments. I just wonder, we don’t have enough Nurse Practitioners. Are you taking the great big guns to the little wee fly to do that, or is that necessary... you can have nurses and you can have social workers and people who are trained in those realms to do those pre-placement assessments and do a lot of the teaching that goes with it.”*

Current linkages between Nurse Practitioners in long-term care and Community Care Access Centres are minimal. Most informants felt their connections with Community Care Access Centres were not sufficiently strong to warrant an interview. Nonetheless, there appears to be great potential for stronger relationships. For example, in one of the projects the Nurse Practitioner and a Community Care Access Centre case manager both attend weekly patient rounds at a hospital rehabilitation unit, which is part of the project partnership. The Nurse Practitioner provides consultation for the development of treatment plans for patients being discharged from the unit to assist the Community Care Access Centre to prepare in-home

services. The Nurse Practitioner acts as a link between the case manager and the physician, thereby expediting orders (e.g., medication) and easing the transition from hospital to community.

3.1.6 Workload

Key Findings:

- A very heavy workload is one of the main challenges facing the Nurse Practitioners in the pilot project.
- A large and complicated clinical workload challenges them to find time to conduct timely follow-up of specific resident problems; complete administrative documentation such as data collection, report preparation and letter writing; prepare for educational activities; attend committee meetings; and participate in outreach activities. This is compounded for Nurse Practitioners who cover more than one facility.
- A survey of work activities indicated that Nurse Practitioners work in excess of 40 hours per week with over half of their time devoted to direct resident care. Few Nurse Practitioners take regularly scheduled breaks throughout the day and some work on weekends. They spend a great deal of time doing clerical work (average of 6 hours, but up to 11 hours, per week). There is concern that with the current workload, Nurse Practitioners are at risk for burn out.

As will be discussed later, one of the challenges of the Nurse Practitioner role raised consistently by Nurse Practitioners and other key informants is their high workload. A large and complicated clinical workload challenges them to find time to conduct timely follow-up of specific resident problems, to complete administrative documentation such as data collection, report and letter writing, to prepare for educational activities, to attend committee meetings, and to participate in outreach activities. Nurse Practitioners assigned to more than one facility are challenged with establishing collaborative relationships with physicians and staff across facilities, with the distance between facilities (one Nurse Practitioner reported that she drives a minimum of 300 km per week travelling between facilities), with balancing the urgent needs of all facilities, and doing their jobs with limited supports (e.g., clerical support).

All of the Nurse Practitioners reported (in their website project updates and the focus group) that they typically work in excess of 40 hours per week. They often work outside of scheduled work hours to complete paperwork, to prepare for educational and community outreach initiatives, and for professional development. In order to get a better understanding of the Nurse Practitioner workload a survey was designed to address a variety of work-related activities including direct

resident care, documentation and meeting time, education and community activities (Attached in Appendix G). There is sometimes overlap in activities making precise time sampling a challenge. For example, a Nurse Practitioner may spend 20 minutes doing a bedside assessment for an episodic illness, but may have also used this time as an opportunity to follow-up on a condition that she had previously assessed, or to do some bedside teaching with nursing staff. Moreover, the survey did not take into account the amount of time that Nurse Practitioners take as breaks (lunch and coffee breaks), which most Nurse Practitioners volunteered that they do not take on a regular basis. Several Nurse Practitioners reported that they use their 'lunch break' as time to catch up on documentation, answer e-mails, or return phone calls. In addition, the survey does not account for the time Nurse Practitioners spend travelling between facilities, though one Nurse Practitioner reported spending 2 hours a week in travel. Although resources to conduct precise measurement of Nurse Practitioner activities and workload were not available for this evaluation, this brief survey provides a snapshot of their activities.

All of the Nurse Practitioners were sent (via email) a time sampling survey to complete for either the week of January 14, or the week of January 21, 2002. Fourteen surveys were returned (representing a 82% rate of return). Four surveys were excluded from the analysis because they were completed incorrectly. Five Nurse Practitioners completed the survey for each of the two survey weeks. The majority of Nurse Practitioners (N = 7; 70%) indicated that the survey week represented a typical work week. Three Nurse Practitioners indicated that the survey week was atypical citing reasons such as sick time, atypical pattern of referrals (e.g., "number of episodic illnesses is unusually low", "abundance of annual physicals"), and unique educational opportunities.

Table 1 presents the amount of time (in hours) that Nurse Practitioners spend in their various work activities. The average work week for Nurse Practitioners was 46 hours; this would roughly equate to six 7-1/2 work days in a 5 day work week. (Note: average is calculated as the statistical mean). However, there was great variability (SD = 8.6 hours), with a range of 34.75 hours (a shorter work week due to illness) to 62 hours (a longer work week to accommodate professional association and community meetings). Nurse Practitioner time was spread out across a variety of activities and there was much variability in the time they spent on each of the activities, reflecting the uniqueness of each project. On average, Nurse Practitioners had direct contact with 65 residents per week, but this was quite variable (SD = 20) and ranging from 45 to 98 residents per week. The majority of the Nurse Practitioner time was spent on direct resident care. The average time spent on direct resident care (total time for physicals, assessments, wound care, follow-up, resident education/support, and other specified activities, but excluding consultations with physicians and staff, documentation, etc), was 23 hours a week (SD = 5.4 hours; with a range of 16.8 to 34.3 hours). This represents an average of 51.3% of the Nurse Practitioners' weekly work time (SD = 12.6%; range of 36% - 70%).

Of the time not spent in direct resident care, Nurse Practitioners spent much time in facility, community, and professional association meetings (an average of 5.4 hours, SD = 4.3 hours per week) and in completing documentation, such as charting, letters, and reports (an average of 5.9 hours, but ranging from .5 to 11 hours per week). Although all the Nurse Practitioners have Monday to Friday work weeks, some nurses reported working on the weekend (N = 5). Some nurses remain available to facilities for consultation via pager. The average amount of time they spent working on the weekend was 1.7 hours (SD = 1.3 hours), with the time spent across a variety of activities including chronic illness assessments, wound care, follow-up visit, teaching preparation, and meetings.

Table 1: Nurse Practitioner Workload: Time spent in various work activities.

Work Activities	Average Number of Hours Spent on Each Activity (√ standard deviation; range)
Admission Physicals (N = 4)	2.6 (√ .63; 1.5 - 3)
Annual Physicals (N = 7)	2.3 (√ 2.1; .75 - 6.5)
Psychogeriatric Assessments (N = 8)	1.9 (√ 1.3; .92 - 4)
Chronic Illness Assessments (N = 10)	4.4 (√ 2.3; 1.25 - 8)
Episodic Illness Assessments (N = 10)	4.1 (√ 3.3; .5 - 12)
Wound Care (N = 10)	3.8 (√ 1.7; 1.91 - 6.5)
Follow-up visits (N = 9)	3.1 (√ 1.8; 1.5 - 6.5)
Consults - within facility (N = 8)	3.2 (√ 2.1; .5 - 6.5)
Consults/liaison - community agencies/groups (N = 9)	1.7 (√ 1.3; .75 - 4)
Resident/family education or support (N = 10)	3.5 (√ 1.9; 1 - 6.5)
Documentation (N = 10)	5.9 (√ 3.3; .5 - 11)
Staff Education (N = 10)	2.5 (√ 1.3; .2 - 5)
NP Education (N = 6)	3.3 (√ 2.8; .5 - 8)
Meetings (N = 10)	5.4 (√ 4.3; 1.0 - 14)
Other:	
Assessments (pain, injury, pre-op) (N = 4)	.74 (√ .19; .75 - .97)
Resident Care (diagnostic procedures, palliative care) (N = 7)	.93 (√ .35; .5 - 1.5)
Administrative (chart reviews, death certification, teaching prep, referral to Emerg) (N =3)	3.6 (√ 1.8; 2 - 5.75)
Rounds with Physician (N =2)	3.3 (√ 1.1; 2.5 - 4)
Travel time (N = 1)	2.0
Research (N = 1)	4.0

Total weekly hours (N = 10)	45.7 (∇ 8.6; 34.75 - 62)
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3.2 THE IMPLEMENTATION OF NURSE PRACTITIONER ROLES IN LONG-TERM CARE: FACILITATING FACTORS AND CHALLENGES

3.2.1 Factors Identified as Necessary for Facilitating New Nurse Practitioner Positions in Long-Term Care

Key Findings:

- There is strong support for permanent, full-time Nurse Practitioners in long-term care.
- Financial support is needed for an adequate salary, educational opportunities, equipment and resources, and adequate remuneration for physicians working in collaboration with Nurse Practitioners.
- It is critical to secure support for the Nurse Practitioner position from administrators, physicians, staff, residents and families, prior to a Nurse Practitioner starting a position in a long-term care facility.
- Ongoing education, networking, sharing of experiences, and mentoring (through mechanisms such as the regular Nurse Practitioner teleconferences and the project website) have been extremely valuable.
- Physician willingness to work in a fully collaborative relationship with Nurse Practitioners is essential for Nurse Practitioners to work to their full scope of practice.
- Education or marketing of the role of Nurse Practitioners in long-term care would be valuable to provide information on their qualifications, scope of practice, roles, responsibilities, and collaborative relationships, and on career opportunities for Nurse Practitioners in long-term care.
- There is a need for a clear recruitment plan for new Nurse Practitioners, particularly in under-serviced and remote areas.
- There is great potential for Nurse Practitioners in long-term care to be pulled in many different directions and to be overwhelmed with any of a number of clinical or educational challenges. There is a corresponding need for an appropriate program model that provides clear guidelines, expectations and priorities for the Nurse Practitioner role, keeping in mind the need for flexibility depending on the needs of a particular facility.
- A reasonable workload was identified as essential for Nurse Practitioners to work effectively and efficiently. It was recommended that the ratio of Nurse Practitioner to facility should be 1:1, but no greater than 1:3; or one Nurse Practitioner per 200 - 300 residents - but this should vary based on the number of facilities covered and their unique needs and geographical locations.

Key informants were asked to identify what elements or factors needed to be in place to facilitate the successful implementation of Nurse Practitioner roles in long-term care. Many common elements were identified across all key informant interviews as well as the document review, with many of the factors addressing some of the challenges that currently exist for Nurse Practitioners in the pilot project. (Detailed information on the results of the interviews and document reviews is located in Appendices B, C and F).

3.2.1.1 Continued funding commitment

There was a general consensus among key informants that Nurse Practitioner positions in long-term care should become permanent, full-time positions, and that there should be a commitment from the Ministry of Health and Long-Term Care to provide continued financial support for the program. It was suggested that financial support be secured for an adequate salary, educational opportunities, equipment and resources, and adequate remuneration for physicians working in collaboration with Nurse Practitioners. It was also suggested that the Ministry develop a model, in consultation with long-term care facilities, physicians, and Nurse Practitioners, that provides a clear and appropriate job description and reflects a reasonable workload. The following comment, made by an Administrator, illustrates the sentiments of many of the key informants:

“I think it’s something that has got to continue in the future. I think this pilot, and it shouldn’t be considered a pilot, it should be the opening rather than a pilot because I really feel that we’re going to do an awful lot of harm if we pull this. There’s been too many people that have bought into it and have really felt how available and how useful it is. I think with our current economic situation, with the medical situation, with the HR (Human Resources) situation, everything, with the types of clients we have coming on board, I don’t see how they can go backwards on it. I think the program really has to go forward and I think that eventually we should be looking at a Nurse Practitioner in all long-term care facilities. I think it should be, we mandated dieticians in long-term care facilities for so many hours, I think we have to look at something in some realm that we can get them in... But, I just think that the program has proven its worth even if we cannot objectively put numbers on it, I think it has proven its worth and I think talking to any of the parties involved you could find that. And I think it would be a real disaster to turn it backwards.”

Salary Support

Key informants argued that Nurse Practitioners should receive a salary commensurate with their role expectations, plus full benefits (or in lieu of) including an adequate pension plan, and vacation package (4 weeks per year was suggested). The Registered Nurses Association of

Ontario (RNAO) in their Final Report to the Minister of Health and Long-Term Care Re: Orientation Program to Support Implementation of Nurse Practitioners in Long-Term Care Facilities Pilot Projects, recommended a salary commitment in the range of \$70,000 to \$80,000 plus benefits. Nurse Practitioners argued that their conditions of employment should be clarified, specifically, whether Nurse Practitioners are employees of the Ministry of Health and Long-Term Care or the long-term care facility in which they work, and whether they are required to be a member of the nursing union.

Educational, networking, and mentorship opportunities

The Nurse Practitioners had great appreciation for the educational and networking opportunities that have been provided to them by the Ministry for the duration of this pilot project. The opportunities to network with other Nurse Practitioners via regular teleconferences, to consult with an educational consultant (Diane Harris), and to communicate through the pilot project website have been a source of invaluable support. They have reduced the isolation they experience as the only Nurse Practitioners in their facilities and have given them an opportunity to discuss and resolve issues related to resident care or working relationships, and any other challenges that arise in their work. Other, non-Nurse Practitioner, key informants also identified the need for continued networking and support. One Administrator commented: “...*keeping that network for the Nurse Practitioners to support them once they are in place, like they’ve been doing now through (the educational consultant) and they’ve been doing with their teleconferences...to support each other, maintaining educational sessions for them because I think that the things that their skills may require to keep updated are different than what the RNs are... they need to have educational sessions set up for them to maintain their educational component and upgrading.*”

As will be discussed later, Nurse Practitioners reported that the work they do in long-term care requires a specialized expertise beyond that provided currently by the Nurse Practitioner curriculum. They require access to ongoing educational opportunities to learn about new assessment techniques and treatment approaches, new medications, and any other aspects of resident care that are unique to particular facilities. It was argued that Nurse Practitioners need resources available to them to continue to improve their knowledge base and skills. Key informants suggested that Nurse Practitioners should have the opportunity to attend clinical and scientific conferences, workshops, and courses. Moreover, they should be provided with specialized training for new developments related to their positions, such as the death certification instruction they received.

Equipment and resources

To work to the full scope of their practice Nurse Practitioners require specialized equipment and resources that key informants reported is not often available in long-term care facilities. Table 2 lists the equipment and resources identified by key informants as essential for Nurse Practitioners to do their jobs in long-term care. Nurse Practitioners argued that all new Nurse Practitioners positions be provided with start up funding to purchase the basic medical equipment required to do their jobs and then have access to ongoing funding for equipment to meet the unique needs of each facility. Key informants also identified the need for Nurse Practitioners to have full access to physicians, medical specialists, pharmacists, and other supportive services.

Table 2: Equipment and Resources Needed For Nurse Practitioners Working in Long-Term Care

Medical Equipment:

- Basic medical equipment (cardiac and teaching stethoscopes, blood pressure cuff, pulseoximeter, proper lights for examination, sterilizing equipment)
- Diagnostic equipment (Doppler, ECG, Bladder Scan)
- Treatment -related equipment (suturing equipment, wound care products)
- Resource books

Medical resources:

- access to physicians, specialists, supportive care specialists, including pharmacists, dietician, physiotherapists
- technical equipment necessary to electronically access specialists (computers, digital cameras, video tape recorders)

Administrative resources:

- Clerical support
 - Office supplies and equipment (access to fax, photocopier)
 - Physical space: adequate office space.
 - Computer Equipment: laptop computer, computer software that allows them to develop treatment protocols, monitor resident care and need for follow up, and computer technical support
 - Communication equipment: telephone, cell phone, pager.
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Remuneration for physicians

Key informants in this evaluation as well as the Registered Nurses Association of Ontario (RNAO) in their Final Report to the Minister of Health and Long-Term Care Re: Orientation Program to Support Implementation of Nurse Practitioners in Long-Term Care Facilities Pilot Projects, argued that physicians be adequately remunerated for the time and expertise they contribute to resident care in long-term care facilities and to their collaborative relationships with Nurse Practitioners. Several physicians reported that much of the work they do in long-term care facilities could be done by Nurse Practitioners. One physician reported: *“There’s not a lot here that I do, that a Nurse Practitioner can’t do. There may be only 20% of what I do that a Nurse Practitioner can’t do”*. Many of the tasks that Nurse Practitioners now do that have been traditionally physician assigned tasks, such as admission and annual physicals, are tasks that provide physicians with the bulk of the financial compensation they receive for their work in long-term care. The more complicated issues dealt with by physicians are tasks for which they are less well paid and that require much “on call” attention. To illustrate, one physician reported:

“Two crucial issues to physicians are: 1) are they going, is their income going to be affected, and 2) is there going to be somebody on call for them. In terms of the income, I don’t think it’s that difficult to maintain an income, but in terms of the on call, basically what nurse practitioners do is take away the easy work which often allows, or often is regarded by physicians as the basis for why they come to long term care facilities to earn money. There is some easy stuff and there’s some difficult stuff....Some of the other issues are the sort of routine management of some of the more simple diseases, like assessing heart failure and managing medications, monitoring medications, and that’s quite easy for physicians to do. But when they go out of whack, when the electrolytes go out of whack because you’re treating heart failure or because somebody gets something else in terms of a complicated co-morbid illness that interacts or more interactions with the drugs, then that’s the difficult stuff that physicians are often called in for when they’re not in, when they’re not really on a routine round. And that’s the sort of stuff they’re dealing with in on call at night and on weekends when they’re asked to come in. And the remuneration for that is very poor comparatively for the amount of effort, time, skill and knowledge that is needed.”

Resolving these financial disparities will be critical to maintaining ongoing physician support for Nurse Practitioners in long-term care, for encouraging new physicians to consider work in this under-serviced area, and for retaining physicians already working in long-term care. One physician reported: *“The one thing with physicians is that you have to make sure, and this is kind of greedy, that it doesn’t interfere with their income. If the physician feels pressured by the income part of it, he’s not going to take it lightly”*. In addition to providing physicians with

adequate remuneration for the medical care they provide to residents in long-term care it has been suggested by Nurse Practitioners that physicians might be more amenable to establishing collaborating relationships if they were compensated for time spent consulting with and mentoring Nurse Practitioners.

3.2.1.2 “Buy In” For the Nurse Practitioner’s Role

It was emphasized by all of the key informants that without support from Administrators, Directors of Care, nursing staff, and most importantly, Medical Directors and attending physicians, Nurse Practitioners would be unable to work effectively, efficiently, or to the full scope of their practice. Key informants indicated that it is critical to secure support for the Nurse Practitioner position prior to a Nurse Practitioner starting a position in a long-term care facility. This support, often referred to as “buy in”, was defined as the ability to clearly understand the roles and responsibilities of the Nurse Practitioner and to accept these, and to integrate the Nurse Practitioner as part of the care team. Support from physicians, administrators, staff, and residents and families was perceived as critical to the development of collaborative relationships:

Physicians: The support of physicians was perceived as essential to the success of the Nurse Practitioner role. The ability of Nurse Practitioners to work to their full scope of practice is compromised when physicians are unwilling to establish collaborative relationships. An administrator reported: *“If the docs won’t support it then what do you do? You can’t go forward. If they won’t support it, you’re not going to go anywhere with it. And so I think you really have to have the doctors willing to at least give it a try and they have to have support from the doctors.”*

Trust and respect between the Nurse Practitioner and physician was described as paramount to an effective collaborative relationship. Key informants emphasized the need for physicians to be involved in developing the Nurse Practitioner role within a particular setting in order to avoid scope of practice issues/problems (because the role will be well defined) and to facilitate a smooth transition into the role, for both the physician and Nurse Practitioner as well as other facility staff. One Director of Care suggested that there needed to be at least one physician in the facility who buys into the role and who is willing to advocate for it when resistance arises from other staff members.

Administrators: Administrative support was viewed as critical for creating a work environment that would accept and support a Nurse Practitioner. Administrators were identified as being instrumental to the Expression of Interest process by informing Directors of Resident Care and Medical Directors of the Nurse Practitioner role and potential benefits to their facility, by initiating partnerships, and laying the groundwork for developing a Nurse Practitioner position

and building enthusiasm for the role. They were also identified as being in a position to most effectively lobby the Ministry of Health and Long-Term Care for more Nurse Practitioner positions in long-term care. An Administrator commented on the importance of support from administration:

“You (Administrators) should be working with your whole population within the facility and trying to teach them what it is (the Nurse Practitioner role), educate them about it, build up enthusiasm, build up some of the trust that you can help to integrate that role into the facility so that it works. You can’t just bring somebody like that (the Nurse Practitioner) in, plunk them in here with nothing, and say go for it and hope that they’re going to be able to make an inroad. Some of them might be able to, but there’s a lot of them that are going to waste an awful lot of time trying to do it, because long term care facilities sometimes they’re tough to break into because there is longstanding staff”.

Similarly a Director of Care commented:

“I think that has to do with leadership. It has to do with the director of nursing in the home and what her buy in is, and I mean if they buy in and believe in the nurse practitioner, and what she’s doing, then I think she flows that down through her team and they work well together. So I think you need the buy in at the top. You need an administrator that supports.... So I think it’s definitely the challenge there is to be able to have your people at the top support, and if you don’t have that it’s not going to work. And that’s already happened in one of the facilities in our group. And I believe that’s because there is no buy in at the top.”

Nursing Staff: Since Nurse Practitioners work closely with nursing staff, their support is critical to the success of the Nurse Practitioner role. Several Nurse Practitioners reported that initially they experienced some resistance from staff that they attributed to unclear role definitions, fears of their work being monitored, evaluated, or taken over, and concerns that involvement with a Nurse Practitioner would increase their workload. Although some Nurse Practitioners continue to experience challenges with nursing staff, these appear to be related more to systemic problems in long-term care (e.g., workload, job stress, attitudes about caring for the elderly) rather than staff problems with the Nurse Practitioner role. In general, as nursing staff become more familiar with the Nurse Practitioner role and the benefits derived from it, their resistance is reduced. A Registered Nurse commented that nursing staff are willing to accept the Nurse Practitioner role when they clearly understand Nurse Practitioner and physician roles and responsibilities: *“figuring out what she (Nurse Practitioner) does, what he (physician) does and figuring out the grey area in between”.*

Residents, families and Family Councils: The recipients of the Nurse Practitioners skills and expertise were seen as being in an important position to provide support for the role. Families and Family Councils were perceived as being in a good position to advocate and lobby for more Nurse Practitioners in long-term care.

3.2.1.3 Promotion of the Nurse Practitioner Role in Long-Term Care

Many key informants reported that education about, and promotion of, Nurse Practitioners was important for securing support for their role in long-term care, particularly because it is a relatively new role within the health care system. It was suggested that there needs to be broad-based education about Nurse Practitioners, emphasizing their qualifications, scope of practice, roles and responsibilities, and career opportunities in long-term care and describing their collaborative relationship. Education was identified as essential for dispelling any myths or biases people have about Nurse Practitioners, as illustrated by a Director of Care who commented that: *“Some people perceive the Nurse Practitioner as being second best. If you can’t get a physician you’ll have to do with what you can get. But the Nurse Practitioner can contribute a whole lot more.”*

Education should be targeted to those working in long-term care: Administrators, Directors of Resident and Medical Care, attending physicians, nursing and support staff, should emphasize the collaborative nature of the Nurse Practitioner’s work to dispel concerns that the Nurse Practitioner will have a negative impact on existing positions (e.g., that the Nurse Practitioner will usurp the responsibilities or income of others). Education should also be targeted to the general public, community agencies and groups, including Community Care Access Centres and acute care facilities so that informed decisions can be made about what services (treatments) are available to residents. A Director of Care commented:

“I think other agencies can advocate, that we work with (a Nurse Practitioner), for example I’m thinking of the Community Care Access Centres, you know when they are doing applications at home for people to come into homes just by saying they have a Nurse Practitioner, do you know what a Nurse Practitioner does, and she’s in the home...The person comes to emerg, family is in a crisis, Mom’s got to get into some kind of a facility. Discharge planners in the hospitals, definitely can be sitting down talking about where you’re going to place your Mom or Dad. I know if it was me, I’d think “Wow, they’ve got it (a Nurse Practitioner), this is great”. Because knowing that physicians don’t see them as much as probably we would like them to be seen that would be a big plus. So, I’d make all of the community agencies you know, need to be more educated on the role and the advantage.”

Key informants suggested that the task of promoting and providing education about the Nurse Practitioner role could be shared by various sources:

- The Ministry of Health and Long-Term Care, in conjunction with the College of Nurses and other professional nursing and long-term care associations (RNAO, OANHSS, OLTCA), could provide information to long-term care facilities, the general health care system, and the general public.
- Administrators could network with other long-term care facilities, for example, through long-term care Associations and Facility Operators Groups (FOG), to inform them about Nurse Practitioners and to facilitate the completion of the Expression of Interest process and the implementation of the role.
- Nurse Practitioners could network through their professional associations and associated electronic bulletin boards and newsletters to promote their role and to facilitate the implementation of new Nurse Practitioner positions. They could continue to do presentations with various professional groups (physicians, long-term care groups, gerontology and community groups) to educate and promote their role. Nurse Practitioners could be involved in curriculum development for Nurse Practitioners and the COUPN program (Council of University Programs in Nursing) so the needs of long-term care are adequately represented, they could be advocating for legislative changes that will expand their roles, and be otherwise actively involved in developing the role of Nurse Practitioner in long-term care.
- Physicians were viewed as instrumental to providing other physicians information about the Nurse Practitioner role, with special emphasis on how the inclusion of Nurse Practitioners in long-term care positively affects their work and the quality of care provided to residents, and dispelling any concerns physicians may have about Nurse Practitioners, particularly concerns about Nurse Practitioner's replacing physicians or impacting their financial status.
- Other long-term care facility staff, who are Nurse Practitioner colleagues and collaborators (e.g., dietitians, pharmacists, physiotherapists) could promote the Nurse Practitioner role to their various disciplines, emphasizing the positive impact on their work.
- Families, residents, and Family Counsels directly benefit from Nurse Practitioner services and could promote and advocate for Nurse Practitioner positions.
- Community agencies, such as Community Care Access Centres, have been proactive in developing roles for Nurse Practitioners and were also identified as potential advocates for Nurse Practitioners in long-term care.
- Local politicians were identified as a potential resource for support and a voice representing the community to the government.

Related to the promotion of the Nurse Practitioner role, several key informants suggested the need for a strong recruitment plan for new Nurse Practitioners. Long-term care was described as an area typically considered unattractive, but one which has immense career opportunities for Nurse Practitioners to work to the full scope of their practice. It was suggested that specific

programs be developed for promoting geriatrics and work in long-term care and for recruiting new Nurse Practitioners. Opportunities for mentorship with Nurse Practitioners in long-term care (teaching and field placements) were suggested to encourage nurses to this area.

3.2.1.4 Guidelines and Expectations for Nurse Practitioners

There is great potential for Nurse Practitioners in long-term care to be pulled in many different directions and to be overwhelmed with any of a large number of clinical or educational challenges. There is a corresponding need for an appropriate program model that provides clear guidelines, expectations and priorities for the Nurse Practitioner role, keeping in mind the need for flexibility depending on the needs of a particular facility. Many key informants suggested that the success of Nurse Practitioners in long-term care is dependent on the development of a model that clearly defines the Nurse Practitioner role and that describes the tasks and collaborative relationships that the Nurse Practitioner working in long-term care will assume within the facility. These program models should be developed with input from the facility Administrator, Director of Care, Medical Director, and the Nurse Practitioner, and should be in place when a Nurse Practitioner starts a position. To illustrate, an Administrator commented:

“I think there has to be a good education system and a good understanding by the facilities of how they want the role to play out, before you even bring these people (Nurse Practitioners) on the scene, and we did a lot of that here because I had a really strong interest in Nurse Practitioners so we had discussed it at MACs (Medical Advisory Committees) and we sort of had a really good idea of how we wanted to utilize their skills and how we saw them fitting in long term care....And I think the big thing you don’t want to do is have her absorbed into your nursing so that she is utilized as a nurse. You don’t want that.”

It was suggested that model development be unique to each facility since the needs of each resident population differs, especially in recent years as facilities have experienced a change in the types of residents they admit (i.e., they are now more medically complicated). A program model should outline a clear job description for Nurse Practitioners that reflects a shared vision for care between the Nurse Practitioner and facility, and a reasonable workload designed to optimize the Nurse Practitioners effectiveness and ability to work to their full scope of practice. At regular intervals, this job description and workload should be re-evaluated and modified as necessary. One Nurse Practitioner commented:

“I think a model to design each site or project, such as, like a program development or a project development that would incorporate or provide some of the guidance to the nurse practitioner as to how to develop the project, ensure that there are adequate

opportunities for an introduction phase, an orientation phase, some sort of community assessment conducted by the nurse practitioner ... and then that information is used to shape the role and the services provided. Some sort of start up, a six month start up phase or at least guidelines as to what should be occurring over the next few months.”

3.2.1.5 Reasonable Workload

A reasonable workload was identified as essential for Nurse Practitioners to work effectively and efficiently. As will be discussed later, heavy workloads are one of the main challenges faced by the Nurse Practitioners in this pilot project and this places them at high risk for burn-out. To meet the varied needs of long-term care facilities it was suggested that:

- The number of Nurse Practitioners working in long-term care be increased.
- A more efficient ratio of Nurse Practitioner per facility or resident workload be developed (Most key informants reported that the ideal ratio of Nurse Practitioner to facility should be 1:1, but no greater than 1:3; or one Nurse Practitioner per 200 - 300 residents - but this could vary based on the number of facilities covered and their unique needs and geographical locations).
- A flexible work schedule be developed to allow for periods of time when there are increased demands on Nurse Practitioner time (e.g., annual and admission physicals) and to provide weekend and evening coverage to reduce on-call burden to physicians and to increase family access to the Nurse Practitioner.
- The use of computers in long-term care be expanded and improved to make documentation and monitoring more efficient.
- Logic models could be developed to assess facility priorities and to help Nurse Practitioners organize tasks and programs. (Work on such a model is being undertaken for several projects in the Central South region, facilitated by Dr. Carrie McAiney).
- Regular reviews of Nurse Practitioner priorities be conducted.
- Nurse Practitioners be provided with communication resources such as telephones, pagers, and voice mail to facilitate efficient communication.

3.2.2 Challenges For Nurse Practitioners Working In Long-Term Care

Key Findings:

- A very heavy workload is the major challenge for Nurse Practitioners working in long-term care. This workload compromises their ability to do their jobs efficiently across facilities, to provide adequate follow-up, to establish collaborative relationships, and to participate in non-direct resident care activities.
- Additional challenges are:
 - establishing collaborative relationships when there is hesitation or resistance, and a need to address fears and lack of knowledge of the role
 - system-wide problems inherent in long-term care, including a lack of resources, the increasingly complicated health care needs of residents, and support staff issues
 - limitations to work activities imposed by legislation that does not recognize the full scope of Nurse Practitioner practice, by agencies that do not accept referrals from Nurse Practitioners, and by limitations to the medications they are able to prescribe.
- The specialized and increasingly complex care needs of the residents in long-term care require a specialized expertise beyond that provided currently by the Nurse Practitioner curriculum.

3.2.2.1 Heavy Workloads

The main challenge identified across key informants for Nurse Practitioners working in long-term care was their very heavy workload. In addition to their clinical work, many Nurse Practitioners have assumed educational and outreach activities and they continue to improve their expertise through professional development opportunities (See Table 1). The high workload was attributed to several factors: 1) the complex health needs of residents in long-term care, 2) the lack of medical resources in long-term care, and 3) the high ratio of residents and facilities per Nurse Practitioner. Moreover, one Nurse Practitioner reported that in their zeal to not miss any opportunities to fully use their expertise and skills they have over extended themselves. As reported earlier, most of the Nurse Practitioners work in excess of 40 hours per week (average = 46 hours). Key informants recognized that the current workload for Nurse Practitioners was unreasonable for the long-term and places Nurse-Practitioners at high risk for burn-out.

Several challenges related to workload were identified by key informants:

- Nurse Practitioners are stretched across too many facilities (“spread too thin”), thus reducing their ability to maximize their potential in any one facility.
- Nurse Practitioners do not have the time necessary to adequately establish collaborative

- relationships with physicians, staff, and administrators across several facilities.
- Nurse Practitioners do not have the time necessary to conduct consistent or timely follow-up visits with residents.
 - As a result of having several or many facilities to attend to, Nurse Practitioners are not consistently visible in each facility. As a result, some staff tend to forget about their availability and call a physician for something that the Nurse Practitioner is able to handle.
 - Nurse Practitioners assume a variety of tasks, so that when engaged in those that are not directly resident-care related (e.g., staff education, conference presentations, committee and community work) some resident medical needs may not be met.
 - When Nurse Practitioners are assigned to more than one facility, geographical distance means that they are spending much time travelling between facilities, and each facilities' access to them is limited.
 - Nurse Practitioners are required to be an “expert” in the issues relevant to each facility (e.g., wound care, psychogeriatrics). When the key issues vary across facilities, it may be unrealistic to expect Nurse Practitioner to be “all things to all places”.
 - Nurse Practitioners are challenged to do their jobs thoroughly when diagnostic testing is not always feasible, either because of costs or the patient’s mobility (e.g., it is difficult to send ill residents out of the facility for chest x-rays).

Lack of time was identified as a major reason why some expectations or objectives for the Nurse Practitioner in long-term care role were not realized. Although most of the key informants indicated that their expectations for this pilot project were surpassed (for example, one Administrator commented: “We’re getting what we asked for in spades”), some key informants had goals that Nurse Practitioners were currently unable to achieve because of either heavy workload or because it was never assigned a priority in the project. These tasks were: 1) consistent and timely follow ups, 2) referral, or pre-placement, assessments, 3) involvement in all care planning sessions with an emphasis on looking at quality issues around care planning, 4) more intense work on issues relevant to a particular facility, e.g., falls, psychogeriatric issues, 5) more time with families, and 6) more time networking with community agencies.

Nurse Practitioners indicated a very heavy workload has prevented them from establishing collaborative relationships with all the community physicians attending to residents in their facilities (not just the Medical Director), from achieving personal professional development goals, (such as getting more experience with suturing), and from working with physicians to develop evidence-based assessment and treatment protocols for facility staff to follow. This latter goal is also difficult for them to achieve because of their difficulty gaining access to library material, medical/specialist consultation, specialized equipment, and clerical support. The general consensus was that more a reasonable workload defined by a more reasonable ratio of residents or facilities per Nurse Practitioner could allow Nurse Practitioners to more effectively

extend their role. The current reality is that the more residents and facilities Nurse Practitioners are responsible for, the less they may be able to accomplish.

Key informants expressed concern that the high workload of Nurse Practitioners increases the risk for high attrition rates. Nurse Practitioners are also at risk for developing work patterns similar to physicians (i.e., high clinical caseloads, and minimal time to interact with or to educate staff, residents, and families). Nurse Practitioners echoed these concerns. Two Nurse Practitioners commented, respectively, *“You become like the physician. He just drops in and drops out again.”* (and) *“If you want me to be more time efficient it means sometimes acting more like the doctor. Being more direct and saying “I want this done”.*

3.2.2.2 Establishing Collaborative Relationships within Long-Term Care Facilities

Developing collaborative relationships and changing how people work and interface in the work environment were identified as an important challenge in establishing a new role in long-term care. Support for the Nurse Practitioner role is essential for establishing collaborative relationships. Key informants described an initial hesitation, and sometimes resistance, to the Nurse Practitioner that was attributed to a lack of understanding of the role, fear of the Nurse Practitioner monitoring their work, fear that the Nurse Practitioner would take over their jobs or would create more work for them, or have a negative impact on physician’s financial remuneration. Anxiety about the role of the Nurse Practitioner has lessened as these fears have not been realized. One physician commented: *“Well, actually at the beginning I thought she was going to take over my job. I thought she was going to do everything. I didn’t know how I was going to take it... We did feel a little bit under pressure... I waited and saw what she did and it really didn’t impact my practice. It certainly improved patient care..”* Similarly, an Administrator commented: *“The doctors who have been working with it (the Nurse Practitioner) now, I think are totally converted. And I think the big fear was it was going to cut into their financial intake, it would cut into their authority, perhaps it would be, how would they work with these people?”*

Key informants made several suggestions for facilitating collaborative relationships:

- Educate physicians and nursing staff about the role of the Nurse Practitioner to dispel any negative myths that exist. Physicians educating physicians, either in open discussion or in journal publications, was perceived as most optimal.
- Develop (with administrative support) work environments that are supportive of the Nurse Practitioner and that emphasize the building of strong teams so that everyone has the opportunity to function and make decisions as part of the team.
- Encourage open communication between physicians and Nurse Practitioners to ensure that any questions or concerns about resident care or their working relationship are adequately

identified and resolved.

- Provide opportunities for physicians and Nurse Practitioners to work together so that both parties become familiar with each others' skills and a trusting relationship can develop. This model of working together, rather than a model in which physicians and Nurse Practitioners attend to residents independently, was perceived as most effective. An Administrator provided some insights into this model of operation:

“Some facilities start off with, and I know this from the session that the RNAO held, some worked, they felt it would work best if the Nurse Practitioner was in the facility when the doctor wasn't in so that you could get coverage when he wasn't there. We opted to go the opposite way and have her in the facility when the doctors were here so she could work with them, and in hindsight that was probably the best thing we did because I think it gave them the opportunity to know her, and to learn what she was all about and vice versa and then when they weren't around they could trust what she was doing. The other way it was like there was still a wall and those facilities found it didn't work.”

3.2.2.3 System-Wide Issues in Long-Term Care

Many system-wide problems inherent in long-term care were raised as contributing to the challenges that Nurse Practitioners face. Key informants described the Nurse Practitioner as providing critically needed services in an area that is desperately under-resourced. One Nurse Practitioner commented: *“They are hugely under-serviced in rural areas... but actually I think everywhere it's under-serviced. There's just different degrees of it.”* Many key informants described how the types of residents entering long-term care have more complicated health care problems than those in long-term care 10 years ago. Informants argued that these changes in the health care demands of residents have not been accompanied by sufficient changes to the resources available to long-term care facilities, or to changes in how long-term care facilities operate. A Director of Care reported:

“The type of resident in long-term care has changed over the past 10 years. They are much heavier and more require more care needs. We used to, 10 years ago, admit nice little old ladies who were very cooperative, they were 80 years old. Now we're admitting 37-year-olds with Huntington's Chorea and MS. We're admitting residents with strokes and paranoid schizophrenia, who are 45 (years old). So we're admitting a different type of resident. Now 13% of our population is under the age of 65 years... And the funding, it's important to remember for Nurse Practitioners, to realize that the difference in funding between acute care, complex care and long-term care. Acute care gets \$600 a day, complex gets \$300 and we get \$100. Now remember we have 50 residents under that age of 65. Our funding is that a resident gets one bath a week. Well, when you're 37,

when you're 40 (years old) one bath ain't going to cut it a week . These guys want a bath everyday or every two days. The same thing with ordering programming or if you're going to make recommendations regarding exercise, or muscle strengthening, or physio, you've got to look at what we're capable of doing in this facility. And if we're not able to meet that resident's requirements or needs then we have to look at placing the resident in complex continuing care, because we can't meet those needs here.

Similarly, a physician commented:

"Probably the people that were admitted...to long term care 25 years ago are now being admitted to retirement homes. Whether that's right or wrong is not really the issue. The issue is that it has changed and that has been in my view, the government and the medical profession have not really been focused on putting in the help that is needed and changing the paradigm of how you provide the care. They just expect it to happen."

Administrators described limited funding for resident care, especially specialized care needs for nursing staff and limited access to medical resources. Nurse Practitioners described the challenges of working with nursing and support staff who were overworked, underpaid in comparison to their colleagues working in acute care settings, and had low morale. Some Nurse Practitioners have some staff reluctant to try new care approaches, either because they believe current methods are sufficient, they have no time to learn a new care approach, or they have no motivation to improve their skills. Moreover, there are pervasive myths about health care for the elderly, including the need for pain and symptom management, and palliative care, that prevent residents from getting the care they need. Physical plant resources were described, in some instances, as minimal, with some facilities having difficulty finding an office or work space for the Nurse Practitioner. Some long-term care facilities were described as being in a poor state of repair.

3.2.2.4 Issues Related to Scope of Practice

Nurse Practitioners identified several limitations to their ability to work to the full scope of their practice imposed by legislation: the Public Hospitals Act and the Long-Term Care Act, which currently do not recognize the full scope of Nurse Practitioner practice. Several government (e.g., Native Health Insurance Branch, Veterans Affairs) and community agencies (e.g., Community Care Access Centres) do not accept Nurse Practitioner signatures for referrals. Nurse Practitioners expressed frustration with their inability to prescribe medications that are commonly used in geriatrics because the current drug list excludes these. For example, it was reported that there are few antibiotics on the list that are appropriate for treating pneumonia in the elderly; most of the antibiotics on the list are for treating sexually transmitted diseases. The

Nurse Practitioner suggested that the drug list be expanded to include Lasix: (for chronic heart failure), anti-depressants and anti-psychotics, treatments for osteoporosis, estrogens, vitamin B12 injections, and antibiotics to treat pneumonia.

3.2.2.5 Preparation and Training to work in Long-Term Care

The general consensus among Nurse Practitioners was that they had received a solid base of knowledge in the primary health program, but that the specialized and increasingly complex care needs of the residents in long-term care require a specialized expertise beyond that currently provided by the Nurse Practitioner curriculum. Specifically, key informants (primarily Nurse Practitioners, physicians, and Directors of Care) reported that in addition to a good knowledge of the assessment and treatment of episodic, chronic, and co-morbid illnesses, Nurse Practitioners require training at an expert level in palliative care (including ethical issues), pain and symptom management, wound care, psychogeriatrics (PIECES training), pharmacology specific to geriatrics, continence management, behaviour management, and counseling with families. There were differences of opinion about how best they should receive this expertise, with some Nurse Practitioners suggesting that the Nurse Practitioner program should require a Master's degree as well as a specialized residency program similar to that designed for physicians. Others suggested that this might limit the number of nurses who choose to work in geriatrics, and that it would be better to increase the amount of time devoted to geriatrics in the Nurse Practitioner program. This was perceived to also benefit nurses planning to work in community and family practice, because the elderly population is increasing.

3.2.2.6 Under-serviced Areas

Key Findings:

- There are great opportunities for Nurse Practitioners to work to their full scope of practice in under-serviced areas.
- Nurse Practitioners in under-serviced areas experience challenges related to limited access to medical supports and educational resources, excessive workload, and isolation.
- It is difficult to recruit Nurse Practitioners to work in remote or under-serviced areas.
- Suggestions to facilitate the work of Nurse Practitioner in under-serviced areas include:
 - providing physicians adequate remuneration for consulting in these areas;
 - increasing funding to recruit and support those working in under-serviced areas; and
 - educational opportunities and the use of technology (computer access, videoconferencing) for education and specialist consultation.
- The long-term care sector as a whole is seen as under-serviced.

It was generally agreed across key informants that there are great opportunities for Nurse Practitioners to work to their full scope of practice in under-serviced areas. A Nurse Practitioner commented: *“It’s a wonderful role for nurse practitioners to use their skill. When you use your full skill for practice you want to use those skills. This is the place to be! Because it’s an under serviced group, and people want the help, they’re begging for the help. Even if they don’t know they need the help they’re so grateful when they get it, it’s just amazing.”* It was felt that these opportunities came with many difficult challenges. While many of the comments generated by key informants regarding under-serviced areas apply primarily to rural or remote areas, many apply also to under-serviced areas in urban communities. The challenges identified were:

- Difficulty accessing medical supports: Nurse Practitioners are unable to work in areas where they do not have adequate medical support (access to registered nurses, physicians and specialists); many physicians are unwilling to do phone consults about patients with whom they are not familiar.
- Difficulty recruiting people to work in remote, under-serviced areas.
- High risk for burn-out: work load is overwhelming; lack of supportive resources is frustrating.
- Nurse Practitioner isolation and difficulty connecting with other Nurse Practitioners; under-serviced projects do not have the same kinds of networking opportunities as many of the Nurse Practitioners in the long-term care project.
- Difficulty accessing educational resources, including library access, conference and workshop opportunities.

An Administrator commented on the challenge of placing Nurse Practitioners in under-serviced areas:

“The other problem is, some of the newer facilities don’t even have the medical back up... and some of them don’t have, like one of the qualifiers was you must have RNs around the clock. Well some of the facilities cannot attract RNs. With the HR (human resource) issues the way they are today, you can’t get an RN in a long-term care facility. I’m extremely lucky here to have the staffing that I do, but some of them don’t have RNs around the clock. So if you don’t have an RN around the clock and you don’t have a medical staff, how can you attract a Nurse Practitioner? You can’t because she has to have certain qualifiers there before she can work. She can’t work without a doctor to back her up and you may get a Nurse Practitioner that would be willing, but if you have a distance doctor that you can only access by phone, if I’m a new Nurse Practitioner I’m not going to put my license on the line by going into a facility where I get no support. So why would I do that, so I’m not going to go there because I know that I can sell my wares in many other venues and I’m not going to do that. And I think that’s really hard for some of the under-serviced areas. They need them more than anybody else.”

Several suggestions were proposed to facilitate the work of Nurse Practitioners in under-serviced areas:

- Provide physicians adequate remuneration for consulting to under-serviced areas.
- Increase funding to recruit people to work in under-serviced areas.
- Increase funding to support those working in under-serviced areas.
- Create local educational opportunities for people living in under-serviced areas to get the training necessary to meet the needs of the community.
- Use available technology (computer access, videoconferencing) for education and specialist consultation.

3.2.2.7 Program Evaluation

Key Findings:

- Key informants perceived program evaluation as critical for assessing the success of, and improving the use of, Nurse Practitioners in long-term care.
- There was concern that the proposed overall provincial evaluation will not be valid or reliable.
- Informants expressed concern that outcome variables or quality indicators have not been defined so that they could be gathering data necessary for a thorough evaluation. They are also concerned that a primarily quantitative evaluation will not provide an in-depth understanding of the Nurse Practitioner role or related issues.

Program evaluation, starting with the identification of valid and objective outcome measures, was perceived as critical by many key informants for assessing the success of, and refining or improving the use of, Nurse Practitioners in long-term care. Many key informants expressed concern about the ability of the Ministry of Health and Long Term Care to objectively evaluate the role of Nurse Practitioners in long-term care (in the planned end-of-project overall provincial evaluation) and their own ability to provide valid data for this evaluation. Key informants expressed concern that they did not have specific outcome variables or quality indicators defined from the outset so that they could have been gathering data throughout the project. While many projects indicated that they had been doing some data collection on their own, they expressed concern that at the end of the project they may be asked to provide data they do not have or that they will be overwhelmed by back tracking for data. Some were concerned about the workload and time required for their particular project to provide comparable data across several facilities. A Director of Care commented:

“I audit falls, my counterparts in the other homes, they audit falls. We don’t audit falls the same way. So I mean, if you’re not comparing apples to apples, how can you make a rational judgment on what these outcomes are. And I just find that’s hard and it’s worse when you have to back track and pick up that information, so I really think right off the start, I mean if there had have been some kind of - these are the kinds of things that you know we’re going to look at.”

Several Administrators and Directors of Care expressed concern about whether the provincial evaluation will be able to identify indicators that truly reflect the positive impact that Nurse Practitioners are having on resident care. As an example, one Director of Care reported that the quality of the medical examinations has improved: Nurse Practitioners have more time to spend with the resident so that the examination is more thorough, and more information is documented and in a manner that is clearer for nursing staff to understand and follow up on. However, from a “numbers” point of view, there are no changes in the number of medical examinations conducted. Similarly, an Administrator commented:

“We had come up with a number of goals and I could let you see those, but it’s the measuring of those goals. You know, like quantitatively I can’t measure them. Qualitatively I could say yeah I know its made an improvement, I know that we have relieved some of the burden on the doctors, I know that we have had more timely interventions with residents, more episodic treatments, you know that we have done this and that, as far as perhaps some of that has prevented transfer to hospital because we have had more timely intervention. I know that we have probably decreased maybe family concerns or increased family confidence. Qualitatively, I know that there has been, the staff have increased confidence, I know that we have had that working with the treatment nurses and the program that we had set up for wound care, we’ve hooked (the Nurse Practitioner) into that. I know that it has had a good outcome. But quantitatively, to be able to take stats and actually say, I had six and now I’ve only got four, I can’t do that. I cannot come up with that kind of data. Its just impossible and you know my gut tells me that yeah, there’ve been these areas. I don’t really think that we had set ourselves up for any areas that she hasn’t been able to, we were pretty realistic when we set up the RFP goals. And I really think that we had a good handle on where we wanted her to go, and I don’t think we were too narrow in closing the gate, but I think we were realistic in terms of the time and how much time she would have to be here. If I had her full time I would open that gate and I would expand it to other things that she could do, but I really don’t think there was anything that we had thought that we would accomplish that we haven’t accomplished, but to statistically be able to prove it is really hard.”

Some key informants expressed concern that the “numbers” may not reflect significant changes on some outcome measures, simply because the Nurse Practitioner is not present in the facility the majority of the time. A Director of Care commented: “*She’s only here one day a week. She can’t prevent admissions to hospitals if she’s not here. My numbers might not show a great difference.*” There was a suggestion that for an evaluation to provide useful information, it needs to provide an in-depth understanding of the Nurse Practitioner role and related issues.

3.3 POSITIVE OUTCOMES AND POTENTIAL CONCERNS OF THE NURSE PRACTITIONER PILOT PROJECTS

3.3.1 Positive Outcomes

Key Findings:

The following positive outcomes were identified:

- Improved quality of resident care:
 - general improvement in the level of care
 - increased resident access to resources
 - timely access to medical care
 - continuity of care of residents
 - more appropriate use of medications
 - improved discharge planning
- More efficient use of physician expertise and time, with the potential benefit that this will increase physician satisfaction and help to attract and retain physicians to work in long-term care.
- Improved use of acute care facilities as the number of transfers to hospitals are reduced and hospital resources are used more efficiently (e.g., emergency departments are not used to access diagnostic testing).
- Improved communication with residents and families as Nurse Practitioners are able to spend more time on educating and counseling.
- Improved skill level of staff as the Nurse Practitioners model and teach assessment skills, introduce evidenced-based or new care approaches, and provide formal and informal opportunities for continuing education.
- Improved communication between long-term care facilities and community agencies as Nurse Practitioners act as a liaison to discuss and resolve any concerns about meeting the needs of residents being admitted into long-term care.

3.3.1.1 Improved Quality of Resident Care

There was general consensus among all of the key informants interviewed that the quality of resident care has improved as a result of Nurse Practitioners working in long-term care. The following areas of improvement were identified:

- General improvement in the level of care: palliative care, pain and symptom management, psychogeriatrics, behaviour management, wound care, and the assessment and treatment of episodic and chronic illnesses; Compliance Advisors have reported that facilities with a

Nurse Practitioner have fewer complaints from family members about the medical care that residents receive.

- Increased resident access to resources, including specialist consultations, and access to High Intensity Funding for special treatments or equipment.
- Timely access to medical care: Nurse Practitioners are able to conduct more thorough assessments than Registered Nurses, and to respond to referrals more quickly than physicians because they are often already in the facility and do not have the time constraints of a medical practice outside the facility; in cases where a resident needs to be seen by a physician, the Nurse Practitioner is able to conduct some of the necessary diagnostic tests prior to the physician's arrival, thus allowing for more timely treatment and efficient use of the physicians time.
- Greater continuity of care of residents through: routine follow-up.
- More appropriate use of medications: Nurse Practitioner review of resident care protocols, including medication reviews, has resulted in a reduction in the number of unnecessary or redundant medications prescribed to residents. They have reduced the use of PRN (as necessary) dosing in favour of scheduled dosing, which for many conditions, including pain and symptom management, provides better treatment.
- Improved hospital discharge planning: Access to the local hospital computer system, through the Nurse Practitioner, has allowed for a more thorough and detailed sharing of information between the facility and the hospital, so that the Nurse Practitioners are able to develop fully informed and more appropriate treatment plans for hospitalized residents and new admissions. (Note: only a few Nurse Practitioners have access to hospital computer systems).

The improved quality of care for residents is illustrated in the following comments, made by two Director of Cares, a Nurse Practitioner, and a Compliance Advisor, respectively:

“Absolutely the falls. And with behavioural issues, and behaviour modification and she has been able to, with her intervention, help us modify the behaviours of some of our most troubled and problem people. And it sort of is reassuring to staff. The staff feel supported so they in turn support the Nurse Practitioner and value the contribution the individual makes. But I would say that it has improved resident care through, I can't say the docs weren't doing good assessments, but they didn't always have the time and they weren't always here to intervene and assess the situations, so I think it's just given us more - more timely and more comprehensive.”

“We had a resident, we still have him actually, who was, he is a young man, he is about 56 now. He is in a dementia state, who has had some major problems with wandering and issues around where he should be placed and types of medications that he should be on, but we went through our psychogeriatric team at the hospital, they did their

assessment, no recommendations. She got a physician ...who came down and did a very in depth assessment and made some very good recommendations for what we should be doing. And she sat on that team and that process was very, very helpful and finally getting us to do something where he wasn't you know, zonked on medications because you know, he kept, he would be wandering out of the facility, getting out three or four times a day, and he was in the locked area, but he was very cunning and he would wait for the door to open and walk behind somebody. So she was very helpful through that process."

"The timeliness of it, and the other I think is the thoroughness of it. I have the time to go through the charts and say, oh that hemoglobin is low or gee we haven't done blood work in a year on this person, and I've run across things that should have been done and it's not poor medical care, it's that a physician comes in for 2-3 hours and in that 2-3 hours is trying to see everybody. They need the nursing staff to prioritize and pull together what they need and give it to them. And things get missed and so I think that in terms of thoroughness of quality of care is another issue. Like dig (digoxin) levels and things like that. I think in terms of care its speeding up processes, like if someone is sick and the physician is going to be in on Friday and I know there's blood work being done tomorrow, I will do some of the pre-work up so that by the time the physician gets here to deal with the problem we have a lot more information to deal with so even speeding up that process."

"She (the Nurse Practitioner) has organized a wound care program second to none, the best I've ever seen."

3.3.1.2 More Efficient Use of Medical Resources

Key informants reported that the collaborative nature of the work between Nurse Practitioners and physicians, has resulted in a more efficient use of physician resources. Given current physician shortages this is seen as critical.

- Nurse Practitioners are able to take care of a large portion of referrals for medical care, such as episodic illness, wound care, and psychogeriatric assessment, and routine care such as admission and annual physicals, thereby allowing physicians more time to deal with more complicated resident needs.
- In collaboration with Nurse Practitioners, physicians are able to act as a consultant rather than as a front-line care provider. One physician referred to the Nurse Practitioner as his "eyes and ears" when he is unable to be at the facility.
- Nurse Practitioners possess expertise in geriatrics that can complement the expertise of physicians.

- When Nurse Practitioners are present in a long-term care facility, the physician's burden of responsibility for resident care is reduced.

The following comments were made by physicians about the impact of Nurse Practitioners on the use of medical resources in long-term care:

"She's here more than doctors. She has more hands-on care and she deals a lot with minor stuff that the doctor hasn't really got the time to do, like wound care and sitting down chatting with the patient and explaining about what the situation is. We don't have time for that, the Nurse Practitioner does, or at least we hope they do."

"... 'putting out fires' on a daily basis because the doctor can't always be there. She can handle things that should be dealt with in a timely manner. For example, does the patient need to go to the hospital? I can't drop everything at the office to run over to assess this but the Nurse Practitioner can do this."

"I still have the same length of time here, I just do different things because she does all my medicals and so on and I just review them and sign them off. She does a lot of the med reviews, I have to sign them and make sure they're okay. When she is not here I go and see the patients and deal with them, when she's here she deals with them."

Many key informants believe that the collaborative relationship between Nurse Practitioners and physicians will result in increased physician satisfaction and this will serve to retain and attract physicians to work in long-term care. The following comments were made by an Administrator and a Director of Care, respectively:

"I think the docs are really very happy. I think they feel supported with her. I think they feel that maybe a little bit of their demand has been removed from them because we run a pretty thin number of docs now...so it's been difficult trying to stay on top of all the medical demands and I think a lot of long-term care facilities are going through this and are losing their physicians because of it."

"I think it (the Nurse Practitioner role) has a positive impact on my physician retention within my facility. I think that she because of the collaboration and because of the trust that she has built up with our physicians, she can call, they know the kind of assessment she does, she is treated more like a peer so that if she calls and says I've made this assessment and this is what I think, they place great value on that assessment and can then make an informed decision maybe by not coming to the facility, maybe over the phone in a collaborative fashion. I think that's been very positive for my physicians. We

do have a physician shortage. Anything we can do as a health system to support them in their role and to not have them all burn out and retire at 40.”

3.3.1.3 Improved Use of Acute Care Facilities

Key informants reported that the Nurse Practitioner’s ability to provide timely assessment and treatment has improved resident care so that there is a better use of acute care facilities:

- Nurse Practitioner intervention has prevented transfers to hospitals either by diagnosing conditions that could be treated within the facility (e.g., with the increased use of intravenous therapy and improved pain management), or by diagnosing and treating a condition to prevent the need for hospitalization.
- Nurse Practitioners have assisted nursing staff to conduct more thorough assessments and to do so with greater confidence, thereby allowing them to make more informed decisions about the need for residents to be transferred to hospital, which is particularly important when Nurse Practitioners are not present in the facility.
- In many instances when residents are transferred to hospitals, the facility staff have already conducted some of the necessary diagnostic tests and, in some cases, have already started first line treatment. Even in cases where the first line treatment has been unsuccessful and the resident is ultimately transferred to hospital, the Nurse Practitioner’s initial intervention in the facility may have reduced the length of hospital stay.
- Referrals to hospital are more appropriate.
- Unnecessary trips to the emergency department are reduced; emergency departments are not used to access diagnostic testing (e.g., x-rays) because the Nurse Practitioner can order these independently.
- Nurse Practitioners have been able to better access High Intensity Needs funding to obtain the equipment necessary to treat residents within the facility, thereby preventing transfers to other facilities.

Many residents in long-term care are medically fragile and vulnerable. The Nurse Practitioner’s assessment that a resident needs to be transferred to hospital allows for timely access to treatment, which in some cases can prevent serious complications or mortality arising from a delay. The following comments, made by Administrators, illustrate common reports about the impact of Nurse Practitioners on the use of acute care facilities:

“Specifically, in our facility, (the Nurse Practitioner has made the greatest difference) preventing transfers to emerg. She comes here on Fridays, we have two physicians already but we were a little short when she first came so having the additional person, but even still we’re about 20 miles from the nearest hospital, so for a physician to come out here, it doesn’t happen so they have to be taken to hospital to be seen. But having her

come out on Friday, we're able to catch people usually early enough that she can see them and know if something is brewing so you don't have to wait until Saturday and you have to send them."

"(Transfers to hospital) are now mostly just truly emergency cases. Whereas before you'd see patients coming in for assessments and 'just in case'."

3.3.1.4 Improved Communication with Residents and Families

As a member of the medical team, Nurse Practitioners are often the most accessible to families and residents. Nurse Practitioners have been credited with:

- Spending more time than physicians (who have a high caseload and less time in the facility) addressing family and resident concerns and educating them about medical conditions and treatments.
- Assuming active roles in Family Care Conferences.
- Talking "the same language" as families and residents, and being compassionate and empathetic to improve communication and reduce resident and family concern and anxiety.

The communication skills that Nurse Practitioners use are reflected in the following comments, made by a Nurse Practitioner and Administrator, respectively,

"You hear over and over again: 'you take your time to find out what's going on with me and you don't treat me like a symptom that needs medication'. It's the time you're able to spend with them (residents) that's critical."

"...I mean the resident is the only reason we're here, and they have to feel comfortable. You're dealing with an elderly population where the doctor was God and you know, that's where you went, and you didn't go to a nurse to get those answers, you went to the doctor. But unfortunately with things changing the way they are now, doctors don't have the time to spend and you know, often nurses are often much better at health teaching and the compassionate role and bed side manner, and they tend to take the time, its sort of a forte that nurses have and I think the nurse practitioner brings the best of that so she has that plus she has the enhanced knowledge base, and I think we have had nothing but positive responses from families and residents..."

3.3.1.5 Improved Skill Level of Staff

Nurse Practitioners have been credited with increasing the skill level of long-term care facility staff by:

- improving their assessment skills and bringing evidenced-based or new care approaches to facilities
- being resident-focussed not product focussed, so that she is able to inform nursing staff which types of products (e.g., for wound care) are best for which kinds of problems and residents
- educating nursing staff, either informally at the bedside or in more formal educational sessions, about conditions and treatments for which they have little knowledge or experience
- providing timely education (e.g., when a resident is admitted with a condition the staff are unfamiliar with the Nurse Practitioner can immediately provide them with information).

Most key informants reported that nursing staff, as a result of Nurse Practitioner education, are better able to conduct assessments, thereby improving resident access to treatment. Nursing staff, with assistance from the Nurse Practitioner, have been credited with admitting residents to hospital with more thorough assessments and more comprehensive documentation than previously. Staff confidence in their nursing skills has increased. They are better able to independently brainstorm and make decisions in difficult situations. Changes in nursing staff skills and benefits to residents are illustrated in the following comments, made by an Administrator, Nurse Practitioner, and Director of Care, respectively:

“She’s (Nurse Practitioner) moved the bar and elevated the level of professionalism among the staff.”

“I do think I’ve made a difference in terms of staff, in terms of how they approach situations and I have staff who say to me now, ‘well I’ve listened to so and so’s chest.’ Well you know, that wouldn’t have happened a year ago. A year and a half ago they would have told the physician there was a cough. They wouldn’t have got the stethoscope out and listened to the chest. So even just setting the standard a little higher and saying, she’s a nurse and she can do that, so I’m a nurse and I can do that too.”

“...she is also able to teach staff how to deal with some of our problem behaviours you know, and also the warning signs to watch for and she has worked really closely with the nursing staff, and we have also introduced a behavioural support nurse and she and our nurse practitioner worked very closely because we have a partnership now with CAMH for mental health issues. There is a really good partnership so that we’ve had a significant reduction in our incidents of aggression from one quarter, I mean it was

really very significant. We had 33 incidents of aggression for the first half of this year, and this is sort of unprovoked, and it dropped to 15 with the involvement of this sort of team approach. And a lot of it had to do with the monitoring, the interventions, and the staff education you know, because the staff were afraid of people like this and often missed signals they shouldn't have missed. And with education from the nurse practitioner and the support given through the behavioural support person, the closer monitoring has really made a big difference in dealing with our behaviours. So we're very pleased with the results."

3.3.1.6 Improved communication with community and government agencies

Nurse Practitioners have been credited with improving communication between long-term care facilities and various groups such as Community Care Access Centres, and with MOH compliance advisors. For example, Nurse Practitioners have been able to discuss and resolve any concerns arising from the functional assessments conducted by the local Community Care Access Centre prior to a resident being admitted to the facility, as illustrated by this Director of Care, who commented:

"...(the Nurse Practitioner has acted) as a liaison between the Ministry of Health, our compliance advisor. (The compliance advisor) will call (the Nurse Practitioner) and discuss any issues that we feel we're unsure about and she is able to do that, she has a good rapport with the compliance advisor, and that really helps administratively, you know, when you're in a crunch and you've got an application for somebody and you're not quite sure whether we should be taking them, you don't know whether High Intensity Needs will fit the bill. She has been able to liaise that way...."

3.3.2 Potential Concerns

Key Finding:

- No negative outcomes of Nurse Practitioners working in long-term care were identified. One issue was identified as a potentially major concern - that of a possible impact on physician remuneration as a result of their collaborative relationship with Nurse Practitioners.

Across all of the interviews with key informants as well as the documents reviewed for this evaluation, only one issue was identified as a negative outcomes associated with Nurse Practitioners working in long-term care - that of physician remuneration for their work in long-

term care. As discussed earlier, in being relieved of some clinical tasks (e.g., admission and annual physicals) physicians are now left with the responsibility for more complicated issues, usually requiring attention on an “on-call” basis, for which they are less well compensated. Moreover, physicians are not compensated for the time they spend collaborating with Nurse Practitioners. Physician remuneration was viewed as part of a more systemic problem in long-term care and not simply related to the Nurse Practitioner pilot project.

Most of the key informants reported that their expectations and goals for the pilot project were surpassed. As discussed earlier, any unmet expectations or unexplored opportunities for the Nurse Practitioners were attributed to lack of time resulting from an extremely high workload.

Several key informants, primarily administrators, were concerned about the implications of not continuing the Nurse Practitioner in long-term care project. For example, one administrator commented: *“My big problem is if the Ministry pulls it out of here I got a major gap that I don’t know how I’m going to fill now, and that is, we knew this was a pilot, it’s been extended for a while, but if she goes, I got a big problem on my hands.”*

4.0 Conclusions and Recommendations

4.1 CONCLUSIONS

There was strong consistency across all information sources about the major issues in the Nurse Practitioner in long-term care pilot project. Information gathered in this interim evaluation indicates that Nurse Practitioners working in collaborative relationships with physicians in long-term care can have a significant impact through their work as advanced practice nurses, consultants, educators, role models, counsellors, and advocates. Key informants reported that their expectations for the pilot project have been exceeded. Based on the results of this interim evaluation, the following conclusions can be made about the role of Nurse Practitioners in long-term care:

- The Nurse Practitioners in this pilot project are highly skilled and knowledgeable professionals who are enthusiastic, passionate, dedicated, and committed to the work they do in long-term care.
- The services Nurse Practitioners have provided for residents of long-term care facilities have been valued very highly. “I wish we could clone her” was a common statement heard in key informant interviews.
- The Nurse Practitioners in the pilot project have assumed a variety of clinical and educational activities, professional development, community outreach, and other activities based on their personal expertise and interest and the needs of their facilities.
- There is extremely strong support for permanent, full-time Nurse Practitioners in long-term care.
- Nurses in the pilot project have worked, for the most part, to the full of scope of their practice. Legislative and policy restrictions limit their scope of practice, as does resistance from administrators, physicians, and nursing staff for their role.
- Nurse Practitioners in the pilot project were described as having made major improvements to the quality of the care that residents receive, through their direct assessment and management of health problems, by improving the knowledge, skill level, and professionalism of the nursing staff working in long-term care, and by advocating for specialized equipment and services for residents. Nurse Practitioners have increased the access of residents to timely medical care.

- Intervention by Nurse Practitioners has resulted in a more efficient use of medical resources (physicians) and acute care facilities, which may be translated into cost savings.
- The role of Nurse Practitioners in long-term care has resulted in changes in how physicians practice in long-term care. These changes may affect the remuneration physicians receive for work in long-term care.
- The Nurse Practitioners in the pilot project have extremely heavy workloads and are at risk for burn-out.
- To facilitate the implementation of Nurse Practitioners in long-term care, the following are needed: adequate salary support and benefits; educational, networking, and mentorship opportunities; specific equipment and resources.
- Collaborative relationships between Nurse Practitioners and physicians are critical for the successful implementation of this program. Consideration needs to be given to the impact of these new working relationships on the remuneration physicians receive for their work in long-term care, as well as other issues affecting successful collaboration.
- Education about the role of Nurse Practitioners, promotion of their role in long-term care, and support for Nurse Practitioners from facility Administrators, physicians, and staff is essential for the successful implementation of this program.
- There is great potential for Nurse Practitioners in long-term care to be pulled in many different directions and to be overwhelmed with any of a number of clinical or educational challenges. There is a corresponding need for an appropriate program model that provides clear guidelines, expectations and priorities for the Nurse Practitioner role, keeping in mind the need for flexibility depending on the needs of a particular facility. .
- Nurse Practitioners require training beyond that received in the Nurse Practitioner curriculum to meet the specialized needs of residents in long-term care.
- Although opportunities for linkages with community agencies such as Community Care Access Centres exist, these linkages are not currently strong. There is some concern that increased linkages with CCACs, such as greater Nurse Practitioner involvement in pre-admission assessments, could detract from their main responsibilities to long-term care residents.

- There are great opportunities for Nurse Practitioners to contribute significantly to long-term care in under-serviced (remote) areas, however, there are also many factors (e.g., limited access to medical supports, resources, and educational opportunities; isolation; and high risk for burn-out) that compromise their effectiveness.
- There are concerns that the overall end-of-project provincial evaluation may not generate valid information on the effectiveness of Nurse Practitioners in long-term care.

It should be noted that the pilot project sites are a self-selected sample of facilities that have already expressed strong commitment to the Nurse Practitioner role. Acceptance of the role, including the potential for positive collaboration with physicians, may be somewhat different in sites that did not participate in the pilot project.

4.2 RECOMMENDATIONS

Based on the findings of this interim evaluation, the following recommendations are suggested:

- Preparation should be made for the possible continuation and expansion of Nurse Practitioner positions in long-term care, following the end of the pilot project period. If a decision is made to continue this initiative, any delays in implementation could be seriously disruptive to the long-term care facilities currently involved in the project. Moreover, the Nurse Practitioners currently in the project could find employment elsewhere, thus losing the knowledge and expertise they have gained during the pilot period.
- If future programs for Nurse Practitioners in long-term care are approved, their development should be guided by an Expression of Interest or Request for Proposal, or similar process, so that goals, partnerships and linkages are well formulated and support for the Nurse Practitioner's role is secured.
- There should be continued support for Nurse Practitioners in under-serviced areas. The role of Nurse Practitioners in long-term care is a good illustration of the potential benefits in a less well-resourced sector of the health system. Under-serviced areas provide good opportunities for Nurse Practitioners to work to the full scope of their practice.
- Funding should be provided for adequate remuneration of Nurse Practitioners. Determination of an appropriate salary and benefits package should be made in consultation with Nurse Practitioner and nursing associations (e.g., RNAO).
- Additional funding should be made available for:

- equipment and resources necessary for Nurse Practitioners to meet the unique needs of the facilities in which they work. Nurse Practitioners should have some control over this funding.
 - educational opportunities to improve knowledge and skills in areas relevant for the facilities in which they work.
 - clerical and administrative support (data collection, letters, reports, etc).
- Provision should be made for continuing the networking opportunities for Nurse Practitioners (such as those facilitated by the project education consultant, including the project website and regular teleconferences), so that they can work together to share experiences, discuss issues of mutual concern, brainstorm common solutions, address challenges, and provide mutual support.
 - The introduction of Nurse Practitioners in long-term care has an impact on the work of physicians practicing in long-term care and issues related to collaborative relationships with physicians will need to be addressed. Resolving issues related to remuneration and on-call activities and addressing any concerns that physicians have about establishing or working in collaborative relationships with Nurse Practitioners are critical to the success of this program. The effectiveness of Nurse Practitioners is significantly compromised when physicians do not support this program and are unwilling to work collaboratively with Nurse Practitioners. Further in-depth investigation of the specific factors, issues, and concerns that impede collaboration is needed so that a plan to work with partners to strengthen working relationships can be developed.
 - A working model or job description consisting of clear guidelines for Nurse Practitioner roles and responsibilities should be developed. A process for identifying priorities and role delineating boundaries should be developed, recognizing the need for flexibility to take into account the unique needs of each facility, the expertise and interests of the Nurse Practitioner, and that allows for a reasonable workload.
 - A program model for Nurse Practitioners should describe an appropriate Nurse Practitioner to resident/facility ratio that is guided by the needs and priorities of the facilities and geographical distances. It is difficult to extrapolate from this pilot project, because there was considerable variability in goals and emphases across projects. Key informants interviewed in this evaluation suggested that the ratio of Nurse Practitioner to facility should be 1:1, but not greater than 1:3, or one Nurse Practitioner per 200-300 residents. There was also a feeling that with increased numbers of residents or facilities, Nurse Practitioners become less effective. In the study reported by Burl and colleagues (1998), each Nurse Practitioner followed approximately 110 residents across one to three facilities. In their description of the

EverCare Nurse Practitioner program in the United States, Kane & Hucks (2000) report that the number of residents per Nurse Practitioner ranges from 66 to 110; each Nurse Practitioner has one or two homes.

- Nurse Practitioners can and should have a key role in linking with specialized or consultative resources (such as Regional Geriatric Programs or psychogeriatric consultants), with educational initiatives (such as PIECES, and including collaboration with in-house psychogeriatric resource persons), and with best practice initiatives (such as the RNAO's Best Practice Guidelines project or the Long Term Care Best Practice Resource Centre being developed in Central South Ontario). Nurse Practitioners are in a good position to facilitate adherence to consultative recommendations and to translate research evidence and educational information into everyday practice. Encouragement of Nurse Practitioners in this role could have major benefits for the success of other initiatives aimed at improving the quality of long-term care.
- The fully informed support of administrators, physicians, and facility staff needs to be secured to facilitate new positions. There should be some collaboration between the Ontario Ministry of Health and Long-Term Care and Nurse Practitioner and nursing associations to promote the role of Nurse Practitioners in long-term care facilities, community agencies, acute care facilities, and the general public.
- Education or marketing of the role of Nurse Practitioners in long-term care would be valuable to provide information on their qualifications, scope of practice, roles, responsibilities, and collaborative relationships, and on career opportunities for Nurse Practitioners in long-term care.

5.0 Discussion

The use of Nurse Practitioners in Public Health Units, hospitals, community and family practice settings is well established (Brown & Grimes, 1995; Schaffner, Ludwig-Beymer, & Wiggins, 1995). Although the introduction of Nurse Practitioners in Long-Term Care settings is a new program in Ontario, geriatric Nurse Practitioners have been employed in nursing homes and long-term care settings in the United States for over 20 years. Nurse Practitioners, in the United States were initially employed in primary health care settings to meet the shortage of physicians, especially in under-serviced areas (Neale, 1999), and were found to provide high-quality and cost-effective care (Schaffner, et al., 1995). Nurse Practitioners were then integrated into nursing homes and long-term care settings to respond to the lack of physicians and nursing personnel and other resources to manage the increasing number of residents with complicated health problems (Mezey, 1990). It has been reported that Nurse Practitioners in these settings have improved resident care and outcomes (Mezey, 1990, Kane, Garrard, Skay et al., 1989; Kane, Garrard, Buchanan et al., 1991) by their ability to assess and treat and to prevent common illnesses and conditions that contribute to hospitalization and morbidity. It has been suggested in a sector of the health system with relatively few resources, the use of the Nurse Practitioners cannot help but improve the quality of care (Kane, et al., 1989).

Facilities with Nurse Practitioners have reported improvements in residents' functional outcomes, incontinence, infection rates, medication use (Mezey, 1989), improved outcomes for congestive heart failure and hypertension (Kane et al., 1991), lower rates of hospitalisation (Burl & Bonner, 1991, Mezey, 1989; Garrard, Kane, Radosevich et al., 1990; Kane et al., 1991), shorter hospital stays (Burl & Bonner, 1991; Miller, 1997), and less use of undesirable care approaches, such as the use of restraints (Kane et al., 1989). Residents in settings with Nurse Practitioners receive more medical attention, as reflected in more orders written and more visits from the Nurse Practitioners, than in settings where medical care is provided solely by a physician (Kane et al., 1991). Given the significant role that Nurse Practitioners can play in improving the quality of care there is much support for their practice in long-term care facilities (Davignon, Patrick & Enloe, 1990; Melillo, 1992; Ruiz, Tabloski & Frazier, 1996; Ryan, 1999).

The outcomes experienced in this pilot project are consistent with those described in the literature: residents experience improved quality of care as a result of Nurse Practitioners' intervention. There are immense opportunities for Nurse Practitioners in Long-Term Care to support physicians in collaborative relationships, to educate staff about new and evidenced-based care approaches, and to provide quality primary and preventive health care to residents.

The use of Nurse Practitioners working in collaboration with physicians in nursing homes has been shown to be cost effective (Buchanan, Bell, Arnold et al., 1990; Burl & Bonner,

1991; Burl, Bonner, Rao et al., 1998, Kane et al., 1991). Models of managed care provided by Nurse Practitioners have been developed on the premise that comprehensive primary care for residents can reduce subsequent costs (Kane& Huck, 2000). In an American study, Burl and colleagues (1998) compared the costs of caring for long-term care residents by Nurse Practitioner/MD teams versus the costs of physician care alone. They found that acute care costs and emergency department costs were lower for residents cared by Nurse Practitioners/MD teams. Buchanan and colleagues (1990) found that there were some cost savings in medical service use and that overall, Nurse Practitioners did not adversely affect costs or profits.

Although this evaluation did not assess cost effectiveness, sustained use of Nurse Practitioners in Long-Term Care may prove to reduce health care costs due to the timely assessment and treatment of episodic illness, improvements in the care of chronic conditions, efforts to prevent illness, more efficient use of medical resources, and a reduction in costs to acute care facilities due to a reduction in hospital admissions and shortened hospital stays.

Despite the potential benefits for residents and evidence of cost-effectiveness, there continues to be some resistance to the role of Nurse Practitioners and to Nurse Practitioner- physician collaboration. Consistent with the American experience (Neale, 1999), this evaluation found that barriers to the use of Nurse Practitioners include role confusion, reimbursement issues, and territorialism. Continued efforts are warranted to investigate and address these issues.

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We appreciate the guidance given to this project by Cathy Crane, David Harvey, Mary Catherine Collins, and Frances Ellett, all of the Ontario Ministry of Health and Long-Term Care.

We are very grateful to the people who served as key informants and assisted us with the data collection process. We especially thank the Administrators, Directors of Care, and physicians who welcomed us to their facilities, those who took time to be interviewed by telephone, and all of the Nurse Practitioners, whose willingness to contribute their time and insights to this evaluation reflected their strong commitment to their work in long-term care.

APPENDIX A	List of projects participating in the Nurse Practitioner in Long-Term Care Facilities Pilot Project
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APPENDIX C	Background Document summary
APPENDIX D	Focus group and interview guide
APPENDIX E	List of key informants
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