

Evaluation of the Nurse Practitioner in Long-Term Care Project

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EXECUTIVE SUMMARY

Since 2001 there have been 2 full-time equivalent Nurse Practitioners (NPs) serving approximately 2000 residents in 21 LTC facilities in Hamilton. The main goals of the NP role are to:

1. provide comprehensive assessment and treatment for common and complex geriatric conditions;
2. help prevent unnecessary hospitalization;
3. promote early discharge from hospital; and
4. help increase the skills of LTC staff.

A one-year evaluation of the NP role was funded by the Hamilton Emergency Services Network to assess the impact of the NP in LTC. An evaluation plan was developed and consequently implemented between July 1, 2003 and June 30, 2004.

The evaluation plan included the following components:

1. summarizing the clinical activities undertaken by the NPs;
2. assessing the NPs' role in hospital admission avoidance;
3. assessing the NPs' role in improving the knowledge and skills of LTC facility staff;
4. assessing the NPs' role in assisting with difficult hospital discharges; and
5. identifying barriers to treatment in LTC facilities as well as possible solutions.

In terms of clinical activities, the NPs have been actively involved in the assessment and treatment of clients with common geriatric conditions. The majority of the NPs' time has been spent in LTC facilities, often dealing with the assessment of new wounds or wound follow-up. In the majority of cases further intervention was not required by the NP. When further intervention was required (e.g., medication prescribed, test ordered), in the majority of cases the intervention was within the NP's scope of practice. As well, for most cases in which the NPs the situation either stabilized or was resolved.

In terms of preventing hospitalizations, the data indicate that the NPs have played an important role. Results suggest that in cases where the NPs have been involved, between 30% and 65% of cases would have been transferred to hospital without the NPs' involvement.

The NPs have also had a significant impact on LTC facility staff by helping to increase staff's confidence in recognizing signs and symptoms of potential problems and in caring for residents in LTC. The NPs' involvement with the LTC facilities has also had some positive effects on LTC facility physicians and on the relationships between family members and staff.

Assisting with difficult discharges has not been a significant component of the NP role. There appear to be a relatively small number of such cases. However, when the NPs have been asked to assist in these situations, the results have been positive.

Finally, a number of barriers to treatment in LTC were identified. These barriers included those related to resident factors, staff factors and organizational and systemic issues.

BACKGROUND

In 1998, the Ontario Ministry of Health and Long-Term Care (MOHLTC) announced a pilot project to support the placement of Nurse Practitioners (NPs) in long-term care (LTC) facilities throughout the province. At that time, 20 such pilot projects were funded. A consortium of 18 LTC facilities in Hamilton, lead by Shalom Village, was successful in its application for one of these positions. In 1999, the MOHLTC announced that these positions would be permanently funded. In 2001, the Hamilton Emergency Services Network (HESN) agreed to fund another NP position for 2 years to work in conjunction with the existing NP in the 21 LTC facilities that then existed in Hamilton. Thus, there were 2 full-time equivalent NPs to serve approximately 2000 residents in 21 LTC facilities in Hamilton. The main goals of the NP role were to:

5. provide comprehensive assessment and treatment for common and complex geriatric conditions;
6. help prevent unnecessary hospitalization;
7. promote early discharge from hospital; and
8. help increase the skills of LTC staff.

In order to assess the impact of the NP in LTC, HESN funded a 1-year evaluation of the role. An evaluation plan was developed with the assistance of the LTC Nurse Practitioner Advisory Group, and consequently implemented between July 1, 2003 and June 30, 2004. The following report provides an overview of the evaluation plan as well as a summary of the results.

EVALUATION OVERVIEW

The evaluation plan included the following components:

6. summarizing the clinical activities undertaken by the NPs;
7. assessing the NPs' role in hospital admission avoidance;
8. assessing the NPs' role in improving the knowledge and skills of LTC facility staff;
9. assessing the NPs' role in assisting with difficult hospital discharges; and
10. identifying barriers to treatment in LTC facilities as well as possible solutions.

RESULTS

Part I: Clinical Activities

Collection of information on the NPs' clinical activities began in May 2003. However, during the first two months, the Evaluation Consultant and NPs monitored the data that was collected and made some modifications to the specific information collected as well as the level of detail. The data fields that were to be collected were finalized for July 1, 2003. The following provides a summary of the data collected between July 1, 2003 and June 30, 2004.

During this 1-year period, the NPs had a total of 2315 clinical contacts (see Table 1). Of these, 64% were follow-up contacts, the majority of which were face-to-face. The average response time was calculated using new referrals only. Approximately 70% of cases were assessed the same day they were referred. The average response time was 1.14 days. Included in this calculation was one outlier (112 days). When this outlier is excluded, the average response time drops to 1.0 days.

Table 1: Overview of Clinical Contacts

Total Number of Contacts	2315
Percent (Number) of New Referrals	35.8% (829)
Percent (Number) of Follow-up Contacts *	63.8% (1476)
- percent (number) of face-to-face follow-ups	54.0% (1250)
- percent (number) of telephone follow-ups	9.3% (215)
- percent (number) of joint visits **	0.5% (11)
Average Response Time ***	Mean (SD, range)
- outlier included	1.14 (4.7, 0 – 112 days)
- outlier excluded	1.00 (2.6, 0 – 33 days)

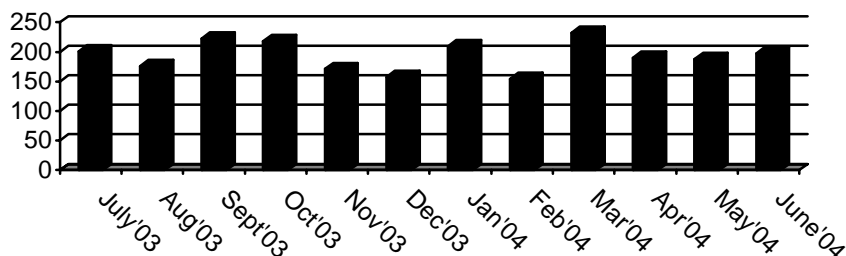
* Percentages may not sum to 100% because of missing values.

** Joint visits are follow-up visits conducted by an NP and some other health professional (e.g., another NP, a member of a geriatric outreach team)

*** The calculation of the average response time was based on new referrals only.

Table 2 provides a breakdown of the NPs' clinical contacts by month. The monthly totals range from 154 for February 2004 to 232 for March 2004.

Table 2: Number of Contacts by Month



The vast majority of client contacts took place in LTC facilities (see Table 3). Table 4 provides a summary of the number of contacts by facility. The number of contacts per facility (for those facilities where at least one resident was seen) ranged from 2 to 292.

Table 3: Client Location

Type of Location	Percent (Number) of Contacts (N=2315)
LTC Facility	96.7% (2238)
Hospital	1.2% (28)

* Percentages may not sum to 100% because of missing values.

Table 4: Number of Client Contacts by Facility

LTC Facility	Percent (Number) of Contacts	LTC Facility	Percent (Number) of Contacts
Facility A	7.6% (175)	Facility L	12.6% (292)
Facility B	0.4% (10)	Facility M	4.9% (113)
Facility C	0.4% (9)	Facility N	1.6% (38)
Facility D	12.1% (281)	Facility O	7.1% (165)
Facility E	1.6% (36)	Facility P	5.6% (130)
Facility F	1.9% (43)	Facility Q	0.1% (3)
Facility G	6.7% (155)	Facility R	3.4% (81)
Facility H	0.08% (2)	Facility S	2.7% (63)
Facility I	2.5% (57)	Facility T	2.3% (54)
Facility J	9.8% (226)	Facility U	2.2% (51)
Facility K	0.8% (19)	Facility V	4.9% (114)

* Percentages may not sum to 100% because of missing values.

The following 3 tables (Tables 5 – 7) present data for initial assessments only. Information related to follow-up activities has not been included.

In terms of the referral source, the majority of referrals (49%) were made while the NPs were already at a facility and they were asked to see another resident (referred to as a “LTC facility opportunistic” referral). Another 43% of new referrals came from calls to the NPs from LTC facilities. Hospitals referrals comprised 3% of new referrals (see Table 5).

Table 5: Referral Source (New Referrals Only, N=829)

Referral Source	Percent (Number) of Initial Assessments (N=829)
LTC Facility Opportunistic	48.9% (405)
LTC Facility	42.5% (352)
Hospital	3.0% (25)
PMAC	1.3% (11)
CCAC	0.6% (5)

* Percentages may not sum to 100% because of missing values.

In terms of the referral person, Directors of Care (DOCs) and other nurses accounted for 85% of the new referrals made. Physicians referred nearly 5% of new cases (see Table 6).

Table 6: Referral Person (New Referrals Only, N=829)

Referral Person	Percent (Number) of Initial Assessments (N=829)
DOC / RN	84.9% (704)
Physician	4.9% (41)
LTC Facility Administrator	1.0% (8)
Other **	4.2% (35)

* Percentages may not sum to 100% because of missing values.

** "Other" includes: social worker and other not specified.

Table 7 provides a summary of the reasons for referrals (according to the referral source). The most common reason for referral was wounds (44% of cases), followed by acute medical conditions (e.g., pneumonia, abdominal pain, sore eye), chronic conditions (e.g., falls, chronic disease) and periodic assessments (e.g., annual physical examinations).

Table 7: Reason for Referral (New Referrals Only, N=829)

Referral Person	Percent (Number) of Initial Assessments (N=829)
Wound	44.3% (367)
Acute	41.3% (342)
Chronic	8.6% (71)
Periodic	4.9% (41)

* Percentages may not sum to 100% because of missing values.

The remainder of the tables in this section present data for all of the NPs' clinical contacts (i.e., initial assessments and follow-up assessments).

The NPs were asked to indicate the level of assessment required for each of their clinical contacts. The assessment levels were defined as follows:

Level of Assessment	Definition
Level 1	Uncomplicated medical problem e.g., uncomplicated UTI, cellulitis, skin tear, suturing, peg tube change, suprapubic catheter change, minor stable wound with uncomplicated dressing change
Level 2	More complex but straightforward problem e.g., new assessment of wounds, applying dressing to complex or multiple wounds, sharp debridement of wounds, pneumonia, falls with injury, UTI, CHF, COPD
Level 3	Ill-defined or complex problem e.g., fever unknown origin, shortness of breath, delirium, falls, decline in health, not eating – weight loss

Approximately 43% of the NPs' contacts were considered Level 1, 46% were considered Level 2 and 11% Level 3 (see Table 8).

Table 8: Assessment Level

Assessment Level	Percent (Number) of Contacts (N=2315)
Level 1	42.9% (993)
Level 2	45.5% (1054)
Level 3	11.1% (256)

* Percentages may not sum to 100% because of missing values.

The NPs were also asked to indicate the type of case for each of their contacts. These data are presented in Table 9. Thirty-five percent of the NPs' clinical contacts involved the reassessment of wounds; another 32% of cases involved medical issues, 15% involved the assessment of new wounds, and 6% involved both medical and cognitive/behavioural issues.

Table 9: Type of Case

Type of Case	Percent (Number) of Contacts (N=2315)
Reassessment of Wound	35.0% (811)
Medical	32.3% (748)
New Wound	14.7% (341)
Wound/Medical	8.5% (196)
Medical and Cognitive/Behavioural	6.1% (142)
Cognitive/Behavioural	1.9% (43)
Wound/Behavioural	0.3% (7)
New Wound and Reassess Wound	0.04% (1)

* Percentages may not sum to 100% because of missing values.

The NPs were then asked to indicate what outcomes occurred as a result of their involvement in each case. Tables 10 to 16 provide summaries of these data.

In terms of whether a test was ordered, in 84% of cases no test was ordered. In 15% of cases, a test that was within the NP's scope of practice was ordered; in less than 1% of cases a test that was outside the NP's scope of practice was ordered, and tests that were both within and outside of the NP's scope of practice were ordered (see Table 10).

Table 10: Outcome - Test Ordered?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	83.7% (1938)
Yes	
- within the NP's scope	14.6% (339)
- outside of the NP's scope	0.7% (17)
- both within and outside of the NP's scope	0.4% (9)

* Percentages may not sum to 100% because of missing values.

In approximately 46% of cases, the NP did not prescribe any medications. When a medication was prescribed, the most common type was a dressing (37% of cases) followed by medications within the NPs' scope of practice (14%) (see Table 11).

Table 11: Outcome – Medication Prescribed?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	45.5% (1054)
Yes	
- within the NP's scope	14.3% (332)
- outside of the NP's scope	3.3% (76)
- both within and outside of the NP's scope	1.0% (23)
- dressing	36.7% (849)

* Percentages may not sum to 100% because of missing values.

** Percentages may sum to more than 100% because more than one response could be provided.

In 58% of their contacts, the NP did not make any recommendations to the resident's physician. In approximately 35% of cases, one or more recommendations were recorded in the resident's chart; in just over 2% of cases the NP consulted with the resident's physician by phone; and in almost 4% of cases the NP and physician had a collaborative discussion to problem solve about the resident's condition (see Table 12).

Table 12: Outcome – Recommendation Made to Physician?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	58.4% (1352)
Yes	
- written on chart	34.6% (800)
- phone consultation	2.4% (55)
- collaborative discussion	3.7% (86)

* Percentages may not sum to 100% because of missing values.

In almost 90% of cases, the NP did not need to refer the resident to another health professional. When a referral was made, it was most commonly made to a dietician (4% of cases) (see Table 13).

Table 13: Outcome – Referral to Another Health Professional?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	89.6% (2074)
Yes	
- Dietician	4.1% (96)
- Outreach Team - medical	0.6% (14)
- Outreach Team – psychiatric	0.6% (13)
- OT	0.6% (13)
- PT	0.3% (8)
- other **	2.6% (60)

* Percentages may not sum to 100% because of missing values.

** "Other" includes: physician, geriatrician, pharmacist, compliance advisor, advocate, etc.

In almost 70% of cases, a referral to the high intensity needs program was not necessary. When such a referral was made, it was most often for a wound, followed by IV treatment (see Table 14).

Table 14: Outcome – Referral Made to High Intensity Needs?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	69.0% (1597)
Yes	
- wound	26.8% (620)
- IV	1.4% (32)
- feed tube	0.4% (9)
- other	1.2% (27)

* Percentages may not sum to 100% because of missing values.

In only a small percentage of cases was an NP-initiated transfer needed. In 1% of cases, clients were transferred to hospital and in less than 1% of cases from hospital to a LTC facility (see Table 15).

Table 15: Outcome – NP Initiated Transfer?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	97.5% (2258)
Yes	
- to hospital	1.2% (28)
- to LTC facility	0.6% (14)

* Percentages may not sum to 100% because of missing values.

In less than 5% of cases another type of outcome was reported. Examples of such outcomes included staff education, family consultation, consults with other professionals and requests for compliance reviews (see Table 16).

Table 16: Outcome – Other Outcome?

Test Ordered?	Percent (Number) of Contacts (N=2315)
No	30.8% (714)
Yes	4.7% (108)

* Percentages may not sum to 100% because of missing values.

** Examples of other outcomes include: pharmacist consult, staff education, discussions with hospital nurses, VAC therapy, consult with wound specialist, family consultation, palliation, compliance review request.

Finally, the NPs were asked to assess the client’s eventual outcome after their involvement in the case. In active cases (i.e., cases where the NP was still involved at the time of data collection), such an assessment could not be made.

Overall, the NPs’ involvement with their clients appeared to have positive benefits. In 77% of cases, the NPs indicated that the resident had stabilized and in another 11% of cases, the problem has resolved. In 2% of cases the resident died, in another 2% of cases the resident was transferred to hospital, and in 1% of cases the client was transferred to another provider (see Table 17).

Table 17: Eventual Outcome

Eventual Outcome	Percent (Number) of Contacts (N=2315)
Stabilized	77.3% (1790)
Resolved	11.2% (260)
Deceased	2.2% (51)
Transfer to hospital	2.1% (49)
Transfer to other provider	1.0% (24)

* Percentages may not sum to 100% because of missing values.

Thus, the NPs have been actively involved in the assessment and treatment of clients with common geriatric conditions. The majority of their time has been spent in LTC facilities, often dealing with the assessment of new wounds or wound follow-up. According to the data on the NPs' involvement in cases (i.e., outcomes), the NPs' skills appear to match the care required (i.e., what's required is within the NPs' scope of practice). Further, when the NPs have been involved the results seem to be positive.

Part II: Preventing Hospitalization

As indicated above, one of the goals of the NP role in LTC was to help prevent unnecessary hospitalizations. In order to assess the NPs' success in this area, data was drawn from two sources:

1. NPs' assessments of the impact of their clinical involvement in preventing hospitalizations and
2. assessments by LTC facility staff of the impact of the NPs' involvement in preventing hospitalizations.

Results from each type of assessment are described below.

NPs' Assessments of the Impact of Their Involvement

In addition to recording information about their clinical activities, the NPs were asked to indicate (for each case) whether a hospital admission was prevented because of their involvement in the case or because of the type of condition that the resident had. A summary of the results from the NPs' assessments is shown in Table 18. In almost 55% of cases, a hospital visit was not avoided (i.e., either hospitalization was not needed or the resident did go to hospital). In 43% of cases, a hospital visit was prevented; in almost 30% of cases this was deemed to be a result of the NP's involvement in the case.

Table 18: Prevention of Hospitalization according to the NPs

Was a hospital admission prevented?	Percent (Number) of Contacts (N=2315)
No	54.9% (1271)
Yes	
- because of NP's ongoing management	29.7% (688)
- because of acute condition	13.2% (305)

* Percentages may not sum to 100% because of missing values.

Assessments of the Impact of the NPs' Involvement by LTC Facility Staff

LTC facility staff were also asked to assess whether the NP's involvement in a case helped to prevent hospitalization. Staff assessments were gathered in two surveys: one that was administered in fall 2003 and a second that was administered in spring 2004. In each of these surveys, the survey respondents (i.e., the Directors of Care or DOCs) were provided with the names of the residents seen by the NPs in the two months preceding the survey, up to a maximum of 10 residents. The DOCs were also given the dates of the NPs' visits. For each case the DOC was asked, "Would this resident have gone to hospital if the NP had *not* been involved in the case?" They were asked to respond either "yes" or "no". Surveys were not administered to LTC facilities that had not had a resident seen by an NP in the previous two months. Data from the two surveys were compiled and are presented in the tables below.

In the first survey, 14 of the 19 LTC facilities surveyed responded; in the second survey, 18 of the 19 facilities responded. The overall response rate was 84% (see Table 19).

Table 19: Survey Response Rate

	Number of LTC Facilities Surveyed	Percent (Number) of Facilities that Responded
Time 1	19	73.7% (14)
Time 2	19	94.7% (18)
TOTAL	38	84.2% (32)

In the first survey, the DOCs indicated that 65% of the cases identified would have gone to hospital if the NP had not been involved in the case. In the second survey, DOCs indicated that 40% of the cases identified would have gone to hospital (see Table 20).

Table 20: Prevention of Hospitalization according to LTC Facility Staff

Would this resident have gone to hospital if the NP had not been involved in the case?	Percent (Number) of Residents
Survey Time 1 (N=94)	
No	29.8% (28)
Yes	64.9% (61)
Survey Time 2 (N=104)	
No	60.6% (63)
Yes	39.4% (41)
TOTAL (N=198)	
No	45.9% (91)
Yes	51.5% (102)

* Percentages may not sum to 100% because of missing values.

Thus, according to both the NPs and the LTC facility DOCs the NPs have played an important role in helping to prevent unnecessary hospitalizations.

Part III: Improving Knowledge and Skills of LTC Facility Staff

As described above, another goal of the NP role was to help enhance the knowledge and skills of staff working in LTC facilities. This was to be accomplished through the NPs' involvement with facility staff (as part of their clinical contacts) as well as through in-servicing. Feedback on the NPs' abilities to enhance staff knowledge and skills was gathered in the two surveys described in the previous section. In these surveys (conducted in fall 2003 and spring 2004), DOCs were asked a series of questions related to the NPs and their impact on facility staff. They were also asked about the impact of the NPs' involvement on facility physicians and family members of residents. The results from these surveys are described below.

The first question respondents were asked was to rate the value of the education/advice provided by the NPs to the staff in their facility (using a 5-point scale where 1=poor, 2=fair, 3=good, 4=very good and 5=excellent). The average ratings at both Time 1 and Time 2 were 4.7 or approaching "excellent" (see Table 21a). Comments made by the respondents related to this question are summarized in Table 21b.

Table 21a: Value of NPs' Education / Advice to LTC Facility Staff

How would you rate the value of the advice / education that the NPs have provided to the staff in your facility?	Poor (1)	Fair (2)	Good (3)	Very Good (4)	Excellent (5)	Mean (SD)
Survey Time 1 (N=14)	0	0	0	28.6% (4)	64.3% (9)	4.7 (.47)
Survey Time 2 (N=18)	0	0	5.6% (1)	16.7% (3)	66.7% (12)	4.7 (.60)

* Percentages may not sum to 100% because of missing values.

Table 21b: Value of NPs' Education / Advice to LTC Facility Staff - Comments

<p>Comments from Survey #1:</p> <ul style="list-style-type: none"> ▪ NP has provided superior education and support to our front line staff. His/Her manner is very conducive to learning by our senior and junior nurses. By working through situations with them, they are able to take his/her suggestions to the next case and assess more confidently. ▪ Both NP1 and NP2 have tried to and continue to strive to develop and educate nursing staff. They are very approachable—they include as many of the nursing staff as possible—including HCAs. I feel we can call them at anytime and ask for advice ▪ Prompt response, thorough medical assessment to rule out causes of behaviours (mainly behaviour issues) ▪ Re: skin care the NP's role in educating and advising our staff is great ▪ NP has been absolutely wonderful around problem solving re: wound care with effective results. We could not have had success without him/her. ▪ In-service and education for QI nurse has been valuable. Staff were taught how to change suprapubic catheters eliminating the need to transfer the resident to hosp. every 6 wks. for catheter change. Hopefully more skills will be taught to staff by NP. ▪ Very helpful with all wound care procedures, educating staff, keeping DOC informed, providing HIN assessments and seeing residents as requested ▪ Usually prompt to respond and visit and discuss plan of care and staff ▪ Very knowledgeable and approachable ▪ NP has become a great resource for all staff ▪ Knowledge is good—accessibility is poor

Comments from Survey #2:

- For example we had a palliative client who was not receiving appropriate med. Saturday a.m., I called the NP and NP responded and advised me. This was extremely helpful.
- Client with major concerns re: suprapubic catheter and care. Very anxious relatives. NP gave in-service which allayed staff's anxiety and made her transition smoother.
- Make visit into educational opportunity as well as treatment of resident/client
- 1. Very helpful with wound assessments with our own wound care specialists. 2. In-service on constipation and bowel management in the past
- NPs continue to educate and support the staff here in the facility; their input is highly valued by Reg. Staff.
- In-services have greatly increase the skills of many of our staff – G tubes, hypodermoclysis, wound care, etc.
- Involved in set-up of our wound care committee and initial treatments of wounds
- Always willing to help in education
- Broader knowledge of wound products "outside eyes" that brings new ideas and problem solving to situations.
- Is there for teachable moments with staff.
- Very thorough, patient and understanding with the staff. Knowledgeable and answers all our questions.
- Great opportunity for education for staff through in-services, assessments, advice, sharing expertise by NP with staff
- Our staff would like more education – in-servicing to be done by NP

LTC facility staff were then asked whether the involvement of the NPs with their staff had helped to increase their staff's confidence in two areas: (1) recognizing / identifying signs and symptoms of potential problems and (2) their ability to provide care to residents in their facility. Respondents were asked to respond "no", "yes to some extent" or "yes, a great deal". Results are summarized in Table 22a.

At both survey times, the majority of respondents (64% and 56% for Times 1 and 2, respectively) reported that their staff's confidence in recognizing/identifying signs and symptoms of potential problems had increased "to some extent". Further, at Time 2, almost 40% reported that their staff's confidence had increased "a great deal". In terms of the second area, 50% of respondents reported that their staff's confidence in providing care to residents had increased "to some extent"; at Time 2, the majority of respondents (56%) reported that staff's confidence had increased "a great deal" (see Table 22a).

Table 22a: Impact of NPs' Involvement on Staff Confidence

Has the involvement of the NP with staff in your facility helped to increase their confidence in ...	a. recognizing / identifying signs and symptoms of potential problems?	b. their ability to provide care to the residents in your facility?
Survey Time 1 (N=14)		
No	0	0
Yes, to some extent	64.3% (9)	50.0% (7)
Yes, a great deal	28.6% (4)	42.9% (6)
Survey Time 2 (N=18)		
No	0	5.6% (1)
Yes, to some extent	55.6% (10)	33.3% (6)
Yes, a great deal	38.9% (7)	55.6% (10)

* Percentages may not sum to 100% because of missing values.

Comments related to these questions are summarized in Table 22b.

Table 22b: Impact of NPs' Involvement on Staff Confidence - Comments

Comments from Survey #1:

a) Confidence in recognizing / identifying signs and symptoms of potential problems

- Looking at underlying medical issues that manifest in behaviours
- Changes in behaviour, cognitive; now do urines for CTs etc. automatically to rule out medical causes.
- Staff are learning new treatments especially with wounds and will suggest and try treatments before calling NP
- Along with the skin care program with J and J. In-service and support of NP to show staff. Staff starting to recognize treatments needed for wounds. Able to assist family and staff in end of life decisions
- Extremely reassuring for such excellent back up for complex care issues
- Staff relies on NP and needs more education on S & S and problem solving
- Some of us have a longer way to go than others. Some of us believe in life long learning, others do not
- Staff could learn more if able to accompany NP when residents are being assessed
- In most cases we have asked NP to come in to assess someone and we discuss the problem but not really educating of the staff. However looking to have a couple of in-services completed by NP
- Not all RNs, RPNs would take steps to consult NP
- Staff feel more comfortable with enteral feeds

b) Confidence in their ability to provide care to the resident in your facility

- Staff more knowledgeable about area to investigate for causes of behaviours (i.e. PRN, med. use, pain management)
- Staff are learning new treatments especially with wounds and will suggest and try treatments before calling NP
- Especially related to wound care
- Always makes herself available and very focused on resident autonomy as whole person
- Able to address many facets of care thus teaching staff re: behaviours, wound care, etc.
- Gives renewed confidence to nursing staff that their assessments have quality to them
- Excellent
- Staff relies on NP and needs more education on S & S and problem solving

Comments from Survey #2:

a) Confidence in recognizing / identifying signs and symptoms of potential problems

- Most often, NP assesses resident with the Reg. staff on duty. This allows for a great teaching experience for the staff.
- Managing wounds: NPs have organized and presented a wound care course for Reg. staff. Each session had a theoretical and a practical component. Staff were/are excited about this and have become much more familiar with various aspects of wound care.
- Explaining treatments, education while doing care
- 1. Mostly technical skills. 2. Mostly with wound care. 3. Helped with difficult to manage impaired residents (earlier in NP Program). PRP more involved now.
- Again, with advice and support, my staff has an increased confidence in assessment and implementation skills.
- Several staff are new grads therefore in the developmental stages of learning to work with the elderly.
- He/She empowers thru education and creates confidence
- Thru Johnson and Johnson in-services staff have gained more knowledge and NP has enforced
- Helps staff to problem solve and gain confidence in their own skills. Reminds them of where to go for info.
- Consultations, sharing opinion/expertise ensure that staff is more confident in decision making, making right choices.

- Particularly with wound care

b) Confidence in their ability to provide care to the resident in your facility

- NPs teach, share readily with the staff.
- increase/more knowledge re: wound care
- IV therapy – suturing – both prevent transfer to hospital
- Especially in relations to wounds and prevention with PSWs. Can get an NP referral for behaviour much sooner than a psychogeriatric referral i.e. week or less vs. 6-8 weeks.
- Confidence with dealing with wounds
- Feel confident in what they do
- Staff in this facility are long term and quite proactive in identifying problems and taking appropriate action.
- Assisted with treatment decisions
- Takes time with staff to think thru issues. Don't think they have actually prevented re: hospitalization of residents – but who can say? They are certainly there to help us prevent that happening
- Through increased education and increased confidence
- Re: wound care

The DOCs were also asked whether involvement of the NP with their staff had had any impact on the physicians in their facility. At Time 1, 64% of respondents said “yes” and at Time 2, 72% said “yes” (see Table 23a). The majority of the comments from those responding “yes” suggest that the NPs involvement helped to improve physician efficiency (see Table 23b).

Table 23a: Impact of the NPs’ Involvement on LTC Facility Physicians

In your opinion, has the involvement of the NP with the staff in your facility had any impact on the physicians in your facility?	Percent (Number) of Responses
Survey Time 1 (N=14)	
No	21.4% (3)
Yes	64.3% (9)
Survey Time 2 (N=18)	
No	22.2% (4)
Yes	72.2% (13)

Table 23b: Impact of the NPs’ Involvement on LTC Facility Physicians - Comments

Comments from Survey #1:

DOCs Responding “Yes”

Comments related to Physician Efficiency:

- NP able to spend more time doing thorough work-up saves physician time
- Reduced visits by MDs into facility as well as collaborative discussions by phone
- Provided less residents for physicians to see
- Reducing the number of clients that they would need to deal with especially skin problems
- Development of wound care protocol now managed in-house. Drs. only notified if antibiotic required or analgesia.

Other Comments:

- I know our medical director is very pleased to have them participate in resident care
- Great back up

- Physicians appear to have more “faith” in their decisions now and because it appears some physicians are not up to date in products for wound care and appreciate efforts

DOCs Responding “No”

- Physician’s have agreed to involvement and follow their recommendations
- Physician has 120 residents. NP mostly has dealt with wound care so far. Hopefully NP will be able to assist to a greater extent in the future.

DOCs who did not answer question

- New physician as of Sept. 1. One prior was not particularly influenced by any of our opinions
- But I believe he will have greater impact as he gets to know our physicians

Comments from Survey #2:

DOCs Responding “Yes”

Comments related to Physician Efficiency:

- I would say that the NPs see residents who would normally have to be seen by MDs, therefore lessened their workload.
- Helped to ease the workload and complements the staff
- Development of wound care protocols prevents many phone calls to physicians for orders.
- Preliminary investigations completed prior to psychogeriatric assessments
- It allows them to let someone else focus on problem areas – provide teaching
- 1. Decrease MD visits, relieving MDs workload. 2. Decrease sending res. for consultation outside facility

Other Comments:

- NP very helpful with wound assessment and Tx as MD not very experienced with various Tx available.
- Physicians like the support help with wound care treatments and follow recommendations from the NP
- Our medical director values the time and input of the NP. He feels that her suggestions are based on good, sound knowledge and assessment.
- Our medical advisor has suggested that it would benefit us to have an NP full time. We have since been able to hire a full time NP.
- For the most part a collaborative relationship, building on each other's strengths to enhance quality of medical for residents.
- NP is continuing to try to work with all our physicians
- Was going to be more involved with physical exams but our MD now has another MD who helps out with this.

DOCs Responding “No”

- Unsure of any impact. All NP orders must be confirmed with physician before implementation (a physician's request), so # of calls made are same – unplanned physician visits may have decreased, however physician visits are not frequent at any time (unplanned visits).
- It has in the past as doctors were usually not involved with wound care anymore. With the NP we had at the time of this survey, doctor often consulted so that Tx was initiated quicker.
- One physician always has had great respect for NP and for nurses in general. Other physicians ignores – not interested and staff usually first work around him. He states he sees “no need” for NPs
WRONG!!

DOCs who did not answer question

- NP is more readily available to see resident than doctor but our doctor always checks orders and follows up too.

Finally, the DOCs were asked if the involvement of the NP in their facility had had any impact on family members of their residents and/or on the relationship between family members and staff. Approximately 36% of respondents at Time 1 and 56% at Time 2 responded “yes” (see Table 24a). Many of the

comments made related to this question indicated that the NPs' involvement provided reassurance to families that the best care was being provided to their loved one; this, in turn, helped to increase family members' confidence in facility staff (see Table 24b).

Table 24a: Impact of the NPs' Involvement on Family Members

In your opinion, has the involvement of the NP with family members of residents in your facility had any impact on the family members and / or the relationship between family members and LTC facility staff?	Percent (Number) of Responses
Survey Time 1 (N=14)	
No	21.4% (3)
Yes	35.7% (5)
Survey Time 2 (N=18)	
No	38.9% (7)
Yes	55.6% (10)

Table 24b: Impact of the NPs' Involvement on Family Members - Comments

<p>Comments from Survey #1:</p> <ul style="list-style-type: none"> ▪ NP will speak/explain status to family where Dr. may not have time and staff may not have the expertise ▪ Families are always looking for another source to validate care. Because NP1 and NP2 are accessible and flexible, families have another resource to tap into ▪ Able to increase confidence with families that good medical intervention is possible in-house. Takes time to explain and support families, the same as my nurses might. ▪ Reassuring to family members ▪ I believe an outside nurse giving the same information benefits the confidence of our families our families when making decisions ▪ Usually communicate with staff and staff communicate with families—has reassured families when seen by NP ▪ Could be of more assistance if more time could be spent at the facility <p>No / Limited Interaction with Family Members or Impact Unknown</p> <ul style="list-style-type: none"> ▪ Not sure if NP has met with family members. Would be helpful during care conferences or when concerns raised. ▪ Does not interact with families ▪ N/A ▪ Have not really monitored this ▪ Families aware but no noted impact <p>Comments from Survey #2:</p> <ul style="list-style-type: none"> ▪ Family gets much comfort in knowing that an NP will make "house calls" to facility when most physicians are reluctant. Families feel their loved one will get prompt treatment and care. ▪ The promptness with which NP responds can delay or avert sending a resident to acute care. In one instance the family member was absolutely thrilled that we were able to use NP and keep resident in her home. ▪ Able to provide explanations to reinforce what our staff has already told them. ▪ By supporting our staff, this in turn builds confidence of families of the residents we are treating. ▪ More support for both staff and family that every effort is being made to care for their loved one ▪ Appreciate extra time/care
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- Family feel assured that all avenues have been looked at when assessments and review complete
- Another expert involved in care – gives them great confidence that we're making all efforts to give their family member the best possible care.
- Appreciation of qualified experts. Appreciation of providing choices. Increased confidence of families that Res. could be cared [for] at NH instead of sending to hospital

No / Limited Interaction with Family Members or Impact Unknown

- Although some family members were contacted by NP. There has been no feedback or impact on their relationship with PNC
- Staff have only dealt with NP
- No contact between NP and family as a result of unpredictable visits
- Not as yet
- Not sure

The following provides a summary of the other comments made by the DOCs regarding the NP role.

Table 25: Other Comments about the NP Role

Comments from Survey #1:

Strengths:

- This is an immensely valuable role in LTC where resources are so limited. We need to make it loud and clear to Government that this role is vital in LTC.
- I hope the role stays. It is a welcome change in Long Term Care. It is wonderful to see we are making use of all this knowledge and talent. Thanks.
- I just can't say enough re: the excellent care provided by NP (she is the only one I have dealt with)
- NP has become a great support and resource for all our registered staff and we look forward to his visits and advise
- NP is an excellent teacher and very responsive to our needs
- They are a fantastic resource!

Weaknesses:

- NP assigned to our facility often delays visits—this makes it very difficult for staff and residents and delays Tx (i.e. To work a resident up today re: Increased hallucinations which are causing much distress (to res.)—has postponed until at least next week and possibly later—staff and MD were awaiting outcome of this work-up to decide further action

Suggestions:

- Often need for NP is on W/E and evenings when ER visits could be minimized
- Extended hours beyond M-F 8-4
- Would like to see more mini in-services related to other topics such as: insertion of peg tubes, behavioural issues with clients - how to ?
- To be more effective; more time needs to be spent at larger facilities i.e.: 200 beds approx.
- Info sessions at each facility.
- NPs are an excellent resource, however I feel much more in-service needed to convince staff and physicians not to send res. to Hosp when UTI and pneumonia could be treated at NH The QI nurse at our facility has been the person who has mostly met with NP. We need to have the other registered staff and physician be more aware of the purpose of the NP and therefore make better use of the services and assistance that we have available from the N. QI nurse has changed 3X here in recent months, therefore consistency has been a problem. When the right person is here it will be more helpful.

Comments from Survey #2:

Strengths:

- I find NPs responsive, supportive, caring, knowledgeable. Staff have commented that they encourage questions, are good listeners and help them with finding the answers.
- As always, the NP continues to be a necessary and vital role in the LTC. We have such little support out there for a population that is very complex with their care. LTC is a high responsibility for nurses to learn and NP role facilitates confidence to set the bar high for resident care.
- I don't know what we would do without NP! He/She is a wonderful, wonderful support to our team here! Thank you for letting us "have" him/her.
- Extremely helpful, informative and down to earth
- Great asset!
- A resident had I-Peg and NP was excellent in in-servicing staff and monitoring same
- We are so grateful to have these experts available for us—they are so respected and such a positive influence on our staff and as a result we all learn and are able to problem solve better!
- A great resource
- We would like to thank our NPs for all the support and quick response whenever needed here at [facility].
- I often wish there were more NPs!
- If we did not have our assistant MD to [physician] we would have had a much greater need for assessments of our residents (UTI, pain management etc.).

Weaknesses:

- Need for more NP i.e. availability
- NP is a valuable role. The availability of the NP is an issue. Calls have been made and the NP cannot get here in a timely fashion. The other problem is the hours of availability. We need NP available more than just day hours. Emergencies arise often after 5pm and then we are forced to send residents out. Suturing is a perfect example of excellent utilization to prevent hospital transfer. Also assessment of residents with UTI and prescribing antibiotics. Also being available to do starts or restarts for IV therapy (after 5pm).
- ... our newly appointed NP was in our facility previously – we know the present NP is more timely with his/her visits and F/Us. Previous NP ordered expensive Tx even if client did not qualify for HIN and had no money and felt these dressings/Txs should come out of nursing envelope – unfortunately nsg. budget is stretched to the max already.
- We also had been trying to arrange NP to help with changing of PEG tubes, but in over a year, this have never come to be. Numerous attempts by NP to see procedure/then review with our staff, but did not happen. This alone would reduce transfers to hospitals.

Suggestions:

- We would like to see increase of hours so he could spend entire day instead of current 4 hours
- We need more of them!!! and also coverage after hours.
- Suggest support in dealing with psycho-geriatric issues. Suggest more interaction with our staff members
- It is our belief that NPs would benefit to be in all facilities on a full time/part time basis.

Thus, results suggest that the NPs have helped to increase staff's confidence in caring for residents in LTC and that the NPs have also had some other positive impacts (e.g., on facility physicians and relationships between family members and staff).

Part IV: Assisting with Difficult Hospital Discharges

A fourth goal of the NP role was to assist with difficult hospital discharges. In order to assess the impact of the NPs in terms of this goal, interviews were conducted with the NPs and with hospital staff members (N=2) involved in discharge planning. The following provides a summary of the feedback obtained.

- The NPs have not been involved in many cases involving difficult hospital discharges. One NP estimated that there had been about 8 such cases in the previous year.
 - The NPs do, however, get called by hospital staff for other reasons; for example, to ask the NP whether a patient would be appropriate for LTC or to give the NP a “heads-up” about a patient with complex needs being transferred from hospital to LTC. In the latter situation, hospital staff ask the NPs to follow-up on these cases.
- Feedback from one hospital member supported the NPs’ observations that there are few cases involving difficult discharges to LTC. According to this individual, the increase in the number of LTC beds has dramatically improved their ability to move people to more appropriate levels of care. Prior to the increase in beds, staff were constantly challenged with trying to transfer patients who did not require acute care to a lower level of care. With the new beds, the system is able to work much more efficiently.
- Another factor that is believed to have helped ease the congestion in hospitals is the networking among providers that has occurred over the past number of years. According to this hospital staff member, the silos that once existed are breaking down. There is now a sense of “we’re in this together”. As a result, people in various parts of the system are helping each other more in order to provide the best and most appropriate care to clients.
- Another hospital staff person suggested that the number of difficult discharges may be down because of the improved relationships that have developed between hospital and LTC facility staff. He/She explained that the two groups try to work together to help ensure a successful transfer.
- In terms of cases where the NPs have dealt with difficult discharges from hospital:
 - Some of the cases have been considered “difficult” because LTC facilities have been reluctant to accept a patient with a complex condition. There are a variety of possible reasons for this reluctance; for example:
 - the patient may be medically complex
 - specific nursing skills are required which may not be available in LTC
 - the level of medical support required may not be available in LTC
 - the level of nursing assessment required may not be available in LTC
 - The NPs note, however, that there is significant variability among the LTC facilities in terms of what they can confidently manage.
 - One hospital staff person reported that the NPs have been used in the following types of situations related to difficult hospital discharges:
 - the NP has been used as a buffer between the hospital and the facility

- the NP has been asked to see a patient in hospital in order to assist with accessing the High Intensity Needs program which the patient will need when transferred to LTC (e.g., paperwork can be started so that the appropriate supplies/furnishings are available when the patient arrives in LTC)
- the NP has been used in a few rare circumstances to reassure a family who is afraid that their relative is being pushed out of hospital and may fall through the cracks
- One hospital staff person indicated that in all of the cases where the NPs have been involved, their involvement was very helpful. This staff person further commented that he/she had never been disappointed after involving one of the NPs, that they have always been accessible, and that they have been wonderful to deal with.
- According to the NPs, the key in dealing with difficult hospital discharges is to find the key people in the emergency departments, help them understand the role of the NP, and have them contact the NPs when these situations arise. There are difficulties, however, in trying to do this because of the number of staff working in the emergency departments and because of the amount of activity happening.
- The availability of the NPs can also impact on their ability to assist in such cases. Because of the conditions that some patients have, a great deal of support/intervention is required. The NPs, however, are only available Monday-Friday from approximately 9:00am – 5:00pm. These cases also require the NPs to be very responsive – in some cases, having to drop other responsibilities in order to dedicate time to the case.

From these data it appears that there are a relatively small number of cases involving difficult hospital discharges to LTC. Thus, this has not been a significant component of the NP role. However, when the NPs have been asked to assist in these situations, the outcomes appear to be positive.

Part V: Barriers to Treatment in LTC and Possible Solutions

A final goal of the NP role was to help identify barriers to treatment in LTC as well as possible ways of addressing these barriers. Interviews with the NPs were conducted to gather this information.

A variety of barriers to treatment in LTC were identified from the NP interviews. These barriers can be categorized into: resident factors, staff factors and organizational and systemic issues. The barriers and, where applicable, the possible solutions to these barriers, are summarized in the following table.

Table 26: Barriers to Treatment in LTC and Possible Solutions

Barriers to Treatment in LTC	Possible Solution
<p>Resident Factors Certain types of residents were identified by the NPs as being difficult for LTC facilities to care for. These included residents with IVs, peg tubes, etc.</p>	<ul style="list-style-type: none"> ▪ Staff education ▪ Ensuring that the proper equipment is available
<p>Staff Factors A variety of staff-related factors were also identified by the NPs as barriers to treatment in LTC. These included:</p> <ul style="list-style-type: none"> ▪ lack of knowledge (and hence comfort levels) among staff to deal with certain types of conditions (e.g., IVs, peg tubes) * ▪ lack of interest among staff in being educated about these conditions * ▪ perceived increase in workload related to residents with complex conditions – staff find it difficult enough to try to care for their residents in the time they have available ▪ staff confidence – confidence among some LTC staff has been eroded because of negative experiences they have had with emergency department staff when they’ve sent LTC residents to hospital <p><i>* Note: While such issues do exist among some staff in LTC, the NPs indicated that there is considerable variability among LTC staff in terms of both competence and motivation levels.</i></p>	<ul style="list-style-type: none"> ▪ Staff education ▪ Higher standards for staff education set by administrators and/or government ▪ Staff education

Table 26: Barriers to Treatment in LTC and Possible Solutions (cont'd)

Barriers to Treatment in LTC	Possible Solution
<p>Organizational and Systemic Factors</p> <ul style="list-style-type: none"> ▪ residents who require investigative work (e.g., lab work, x-rays, etc.); these types of residents are challenging because of the difficulty in getting these tests done; unless the case is an emergency, tests will not be conducted for at least a week; further, staff and physicians cannot get these tests done in LTC on a weekend ▪ staffing ratios – there are not enough staff to provide the care that’s needed ▪ ensuring that there are sufficient wound supplies and dressings is not a priority for some DOCs ▪ access to physician support ▪ administrative support – need to have good leadership in order to provide good care ▪ poor communication and lack of cooperation between LTC facility staff and emergency department staff (e.g., limited information provided to LTC staff when resident is sent back to LTC regarding what was done in hospital) 	<ul style="list-style-type: none"> ▪ ▪ ▪ Incentives for good wound care are needed ▪ ▪ ▪ NPs acknowledge that problem may not be that prevalent since they may only hear about the negative cases

During the interviews, the NPs suggested that the LTC facilities be asked if there were certain types of residents that are difficult to care for in LTC. As a result, on the second survey of LTC facilities (described in section II), DOCs were asked this question. The vast majority of respondents (89%) said “yes” (see Table 26a). Residents with behavioural challenges (e.g., aggression, unpredictable behaviours, psychiatric issues, sexually inappropriate behaviours) were cited most often as being difficult to treat in LTC. Other issues identified included residents who were young, or who had complex wounds, IVs or feeding tubes (see Table 26b).

Table 26a: Difficult to Treat Residents in LTC
(Asked in Survey #2 only)

Are there certain types of residents that are difficult to treat in LTC?	Percent (Number) of Responses
No	11.1% (2)
Yes	88.9% (16)

Table 26b: Difficult to Treat Residents in LTC - Comments

Comments from Survey #2:

Specific issues/challenges identified:

- Behavioural, exit seeking, wanderers
- 1. Very aggressive 2. Sexually inappropriate (if unable to redirect) especially if touching other residents
- Young – i.e. Huntington's, AIDS
- Complex wounds, IVs, Peg tubes, Behaviours/Dementias (all due to nursing time restraints).
- If they are very young. If they are violent (more than "normal aggression") i.e. those that would seek out others to deliberately harm e.g. walk into another resident who is in bed and beat with a cane or something.
- Demented residents with behaviours – great if NP can do complete work-up prior to referring to (or in conjunction with) PMAC.
- Non-predictable physically aggressive resident
- Aggressive residents with Alzheimer's disease and other dementias
- High needs – behaviours, wounds, IV/tube feeds, P.I.C. lines
- Behaviours with alert and cog. impaired residents – major stressing problem to staff – more injuries (staff) and frustration to-date not resolved.
- Behaviour issues – aggressive
- We're seeing more and more psychiatric issues – more developmentally delayed elderly residents.
- Severe behavioural problems
- Those with acute declining condition, no certain cause and family wishing immediate answers, treatment, etc.

Other comments:

- Much depends on the knowledge and experience and open-mindedness of the staff. Staff must have the will to acquire new knowledge, accept new challenges and must be assured of the management support and that resources (educ.) are all available to them. We have had inquiries about TP?, we have 2 Res. with PICC lines, residents with behaviours, severe pneumonia who require IV meds, residents post hip fractures are all challenges.