Nursing and Personal Care: Funding Increase Survey

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EXECUTIVE SUMMARY

Background

In July 2002, the Ministry of Health and Long-Term Care announced an increase in funding to the Nursing and Personal Care (NPC) envelope for provincially funded long-term care (LTC) facilities. The increase took effect on August 1, 2002. For individual facilities this meant an increase of $6.33 per day per resident assuming a Case Mix Index (CMI) of 100.

Purpose

Sigma-3 Policy Research Inc. was contracted to carry out a survey of long-term care facilities to estimate the human resource changes resulting from the increase and to identify other potential benefits to residents.

Nursing and Personal Care (NPC) Envelope

Funds allocated to the NPC envelope must be spent on care-related expenses. Eligible items under the NPC envelope include, nursing and personal support staff salaries and wages, education, restorative care, supplies and equipment (i.e. supplies for personal hygiene and grooming, diagnostic equipment and treatment supplies). Any unspent funding is returned to the Ministry of Health and Long-Term Care.

Funding in this envelope varies each year, depending on the level of care of residents in each facility. The amount of funding for this envelope is determined by the facility’s CMI. The CMI is a measure used to express the levels of care requirements of each LTC facility and determines how funds for nursing and personal care are allocated. The CMI for an average facility is 100.

Methodology

The Ministry of Health and Long-Term Care, Long-Term Care Facilities Branch, developed the survey questionnaire with review and input from LTC industry associations and Sigma-3 Policy Research Inc. It was designed to capture two (pre and post increase) point-in-time ‘head counts’ and full-time equivalent (FTE) measures for all NPC-related staff positions (direct care, support and administrative). The questionnaire was pre-tested with a number of LTC facilities representing all three LTC facility types (Charitable Homes, Municipal Homes and Nursing Homes).

A census approach to the survey was used: all 544 LTC facilities were sent a questionnaire, with responses submitted in confidence. A response rate of 76%, or 412 useable questionnaires, was obtained. The resulting non-random sample is representative of the distribution of facility type and the size of facilities overall.

Results were weighted based on facility type\(^1\) in order to estimate for the entire population of facilities. Data from facilities that opened subsequent to the NPC increase were excluded.

\(^1\) A simplified example of ‘weighting’ follows. If Municipal and Nursing home are equally represented in the population of LTC facilities (i.e., 50% Municipal and 50% Nursing Homes), but our sample is composed of 75% Municipal Homes.
from the analysis. Changes for these facilities were estimated based on the experience of existing facilities.

**Results Highlights**

**Allocation of Increase**

Each facility was asked to provide a percentage breakdown on how their NPC increase was allocated among the various budget items.

On average, 65.8% of each facility’s increase was allocated to Direct Care salaries and wages (S&W); 13.4% was allocated to incontinence supplies; and 5.7% to “other” expenditure items.

Allocation patterns were similar across all three facility types. Direct Care S&W accounted for the largest average allocation in all cases. The average allocation by Charitable Homes was the largest (69.4%); followed by Municipal Homes (67.5%); and then Nursing Homes (64.7%).

Incontinence supplies was also the second largest average allocation for all three facility types, with Nursing Homes allocating the largest portion of their increase (23.8%); followed by Municipal Homes (13.1%); and Charitable Homes (12.2%).

Facility types differ somewhat in the third largest expenditure item. Municipal Homes and Nursing Homes allocated, on average, 5.8% and 6.3% of their increase to “Other” expenditure items, respectively. Charitable Homes’ allocated, on average, only 2.6% of their increase to “Other” expenditure items.

**HR Impact**

The sample was weighted to account for facilities that did not reply to the questionnaire and to estimate the impact on the entire population of 544 facilities. This assumes that there were no significant differences between the 76% that responded to the survey and the entire population.

The survey estimates a total of 42,738 full or part time individuals in the NPC area of the LTC facilities workforce in July 2002. In March 2003, the total number of individuals employed in the NPC area had grown to an estimated 45,088, an increase of 2,350 individuals.

In terms of full-time equivalents (FTE), this translates into an estimated total increase of 1,782.5 FTEs in the NPC area of the LTC facilities workforce.

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_Municipal and 25% Nursing Homes, we have an imbalance favouring Municipal Homes. To make our sample more representative of the population, the response of each Nursing Home would give the weight of 2 (making each Nursing Home response worth twice as much because there are too few Nursing Homes in our sample in proportion to the population) while the response of each Municipal Home is given the weight of 2/3 (making each Municipal response worth less than 1 because there are too many Municipal Homes in our sample in proportion to the population. Refer to Appendix B for the actual weights used for the three types of LTC facilities._
The different facility types were similar in terms of FTE increases per 100 beds. Nursing homes had the largest proportionate increase with 2.8 FTEs per 100 beds, exclusive of avoided layoffs. Municipal and Charitable Homes each had an increase of 2.7 FTEs per hundred beds, exclusive of avoided layoffs.

Survey respondents were asked if the rate increase had allowed them to avoid any layoffs. Given that the CMI determines a facility’s NPC funding allocation from the Ministry, facilities plan their NPC staffing needs based on this annual measure. Facilities may increase or decrease staff according to their CMI. In cases where a facility receives a lower CMI than the previous year, the facility may at its discretion consider laying off or reducing hours of its NPC staff as its resident population has lighter care needs. The NPC increase enabled some facilities whose CMI decrease to minimize staffing reductions that might otherwise have taken place.

The survey findings indicate that 544.9 layoffs were avoided. The Charitable and Nursing Homes sectors benefited the most in terms of layoffs avoided, reporting approximately 1.0 FTE avoided layoffs per 100 beds (1.0 and 0.9, respectively). The Municipal Homes sector reported approximately 0.5 FTE avoided layoffs per 100 beds.

Improvements in Quality of Resident Care

Respondents were asked a qualitative question regarding how the new NPC funding had enabled improvements in the quality of care for facility residents.

Forty-five percent of the improvements mentioned involved “increased time and quality programming.” In this category, respondents noted increased time for nurses and personal support workers to focus on resident care, admissions, orientation, assessment, personal grooming, and social interaction. Others noted an improved capacity to attend to residents with dementia and behavioural issues.

The next most common improvement, accounting for 21% of all comments, dealt with the ability to provide improved bathing services for residents.
1.0 INTRODUCTION

1.1 Background

In July of 2002, the Ministry of Health and Long-Term Care announced an increase in funding to the nursing and personal care envelope (NPC) for provincially funded long-term care facilities. The increase took effect on August 1, 2002, and totaled $100M. For individual facilities, this meant an increase of $6.33 per day per resident assuming a Case Mix Index (CMI) of 100.²

The Ministry of Health and Long-Term Care commissioned Sigma-3 Policy Research Inc. to carry out a survey of long-term care facilities. The purpose of the survey was to determine how the increase was used, assess the human resource changes from before to after the increase, and to identify any associated improvements that benefited facility residents.

1.2 Research Objectives

There were three primary objectives of the study:

1. To **determine how the increase was distributed** within NPC supplies, services and personnel costs, i.e. what proportion of the increase went to which expenditure area.

2. To **identify changes in human resource levels** just prior to the increase (i.e. July 2002) and after the increase at the end of the fiscal year (March 2003).

3. To obtain a qualitative sense of **what quality care improvements resulted** from the increase.
1.3 Survey Design and Methodology

The Ministry of Health and Long-Term Care, Facilities Branch, with review and input from LTC industry associations and Sigma-3 Policy Research Inc. developed the survey questionnaire. It was designed to capture two (pre and post increase) point-in-time ‘head counts’ and full-time equivalent (FTE) measures for all NPC-related staff positions (both direct service, support and administrative). The questionnaire was pre-tested with a number of LTC facilities representing all three LTC facility types (Charitable Homes, Municipal Homes and Nursing Homes).

Because of the small population of LTC facilities (544), a census approach to the survey was adopted. All facilities were sent a questionnaire, and a cover letter explaining the survey requesting the respondents’ cooperation, and that responses would be held in confidence. In order to maximize the response rate, extensive telephone follow-up reminder calls were placed to all late respondents and telephone support was available to respondents throughout the data collection phase.

A response rate of 76%, or 412 useable questionnaires, was obtained. The resulting non-random sample is representative of the distribution of facility types. The sample is also representative of the size of facilities overall and for the Charitable Homes group. However, the sample for Municipal Homes tend to be smaller with an average of 116 beds compared to the total population of Municipal Homes where the average is 164 beds. This result would suggest that larger municipal homes are under-represented. The sample of Nursing Homes with an average of 116 beds tends to be somewhat larger than the total population of Nursing Homes where the average number of beds in only 104. This would suggest that smaller homes are under-represented.

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2 NPC per diem rates are adjusted by the facilities CMI. The $6.33 per resident per day is based on an average facility with a CMI of 100. CMIs are determined for all facilities annually and revised CMIs take effect on April 1 of each year.

3 New facilities that were opened after the August rate increase were taken out of the sample.
For the analysis of human resource changes, results were weighted based on facility type. In order to estimate results for the entire population of facilities, sample results are adjusted to more accurately represent the distribution of the different facility types\(^4\).

See Appendix B for further details concerning response rates, weighting, and margins of error.

### 2.0 SURVEY RESULTS

Results are presented in three sections, the first, section 2.1, deals with the question of how facilities distributed their increase across the various NPC expenditure items. In section 2.2, an analysis of the post increase change in LTC facility human resources is presented, and section 2.3 provides a review of the range of care improvements reported by facilities. In each section, results are presented in total, and for each of the major facility types, i.e. Charitable Homes, Municipal Homes, and Nursing Homes.

#### 2.1 Allocation of the NPC Increase

LTC facilities were asked to provide a percentage breakdown of how they allocated the NPC increase across a range of expenditure items. Expenditure items included:

- Education
- Incontinence Supplies
- Other Supplies
- Equipment
- Direct Care – Salaries and Wages

\(^4\) A simplified example of ‘weighting’ follows. If Municipal and Nursing home are equally represented in the population of LTC facilities (i.e., 50% Municipal and 50% Nursing Homes), but our sample is composed of 75% Municipal and 25% Nursing Homes, we have an imbalance favoring Municipal Homes. To make our sample more representative of the population, the response of each Nursing Home would give the weight of 2 (making each Nursing Home response worth twice as much because there are too few Nursing Homes in our sample in proportion to the population) while the response of each Municipal Home is given the weight of 2/3 (making each Municipal response worth less than 1 because there are too many Municipal Homes in our sample in proportion to the population. Refer to Appendix B for the actual weights used for the three types of LTC facilities.
In the following sub-sections the average allocation to each of these expenditure items is considered.

2.1.1 Distribution of Increase – All Facilities

Figure 1, below, details the average allocation to each expenditure item for all facilities.

Figure 1

**Average Allocation - All Facilities**

<table>
<thead>
<tr>
<th>Expenditure Item</th>
<th>Average % of Increase Allocated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education</td>
<td>1.1</td>
</tr>
<tr>
<td>Other Supplies</td>
<td>1.9</td>
</tr>
<tr>
<td>Equipment</td>
<td>2.5</td>
</tr>
<tr>
<td>Medical Director</td>
<td>3.7</td>
</tr>
<tr>
<td>Direct Care Admin S&amp;W</td>
<td>4.6</td>
</tr>
<tr>
<td>Other</td>
<td>5.7</td>
</tr>
<tr>
<td>Incontinence Supplies</td>
<td>13.4</td>
</tr>
<tr>
<td>Direct Care S&amp;W</td>
<td>65.8</td>
</tr>
</tbody>
</table>

**Staffing and Related**

The “staffing and related” grouping of expenditure items includes: “direct care salaries and wages,” “administration salaries and wages,” “medical director fees,” and “staff education.” The average allocation for grouping of items was 75.2% across all facilities. This grouping breaks out as follows:

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NPC Funding Increase Survey
Sigma-3 Policy Research Inc.
• The overall average allocation to direct care salaries and wages was the largest of all expenditure items at 65.8% of the NPC increase.

• The average allocation to NPC administration salaries and wages was 4.6%.

• Allocations to medical director fees averaged 3.7% of the NPC increase.

• Allocations to staff education averaged 1.1% of the NPC increase.

**Supplies and Equipment**

The average allocation for Supplies and Equipment, which includes “incontinence supplies,” “other supplies” and “equipment,” was 17.8% of the total NPC increase. This grouping breaks down as follows:

• The average allocation to incontinence supplies was 13.4% of the total NPC increase.

• All facilities reported allocations to other supplies at an overall average of 1.9% of the total NPC increase.

• The average allocation to equipment purchases was 2.5% of the total NPC increase.

**Other Expenditures**

• “Other” expenditure items have been grouped under the following headings:
  - Absorbed within current overspending
  - Wage Increases
  - Other (e.g. special resident needs, restorative care, nursing equipment repairs and maintenance)
  - Missing / Not stated.
Considerable variability exists between the three facility segments, both in terms of the nature and the amounts of “other allocations.” These factors are discussed in detail in the segment-specific section that follow (sections 2.1.2, 2.1.3 and 2.1.4 below).

2.1.2 Distribution of Increase – Charitable Homes

Figure 2, below, details the average allocation to each expenditure item for Charitable Homes for the Aged.

Figure 2

![Average Allocation - Charitable Homes]

**Staffing and Related**

The “Staffing and Related” grouping includes direct care salaries and wages, direct care administration salaries and wages, medical director fees, and staff education. The average allocation for Staffing and Related items was 82.5% across all Charitable Homes, the largest of all expenditure areas.

- Allocations to direct care salaries and wages averaged 69.4% of the NPC increase for Charitable Homes.

- The average allocation to NPC administration salaries and wages was 9.2%.
• Charitable Homes allocated 3.0% of their total increase to medical director fees.

• Staff education was allocated, on average, 0.9% of the NPC increase.

**Supplies and Equipment**

The average allocation for “Supplies and Equipment” which included incontinence supplies, other supplies, and equipment, was 14.9% of the total NPC increase. This grouping breaks down as follows:

• The average allocation to incontinence supplies by Charitable Homes was 12.2% of the total NPC increase.

• The average allocation to other supplies was 1.3% of the total NPC increase.

• Equipment purchases were allocated an average of 1.4% of the total NPC increase.

**Other Expenditures**

• Two Charitable Homes reported “Other” allocations of their NPC increase. One facility allocated 63% of its increase to offset their costs in the NPC envelope. The other facility spent 79% of its increase on utilization and wage increases.

**2.1.3 Distribution of Increase – Municipal Homes**

Figure 3, below, details the average allocation to each expenditure item for Municipal Homes for the Aged.
**Staffing and Related**

The “Staffing and Related” grouping includes direct care salaries and wages, direct care administration salaries and wages, medical director fees, and staff education. The average allocation for Staffing and Related items within Municipal Homes was 76.4%. This grouping breaks down as follows:

- Direct care salaries and wages were allocated, on average, 67.5% of the total NPC increase by Municipal Homes.

- An average of 4.5% of NPC increases were allocated to direct-care administration, salaries and wages.

- Medical director fees received an average allocation of 3.4% of each facility’s NPC increase.

- On average, 1.0% of Municipal Homes’ NPC increase was allocated to staff education.
**Supplies and Equipment**

The average allocation for “Supplies and Equipment” by Municipal Homes was 15.9% of the total NPC increase. It breaks down as follows:

- The average allocation to incontinence supplies by Municipal Homes was 13.1% of the total NPC increase.
- The average allocation to other supplies was 1.8% of the total NPC increase.
- Equipment purchases were allocated an average of 1.0% of the total NPC increase.

**Other Expenditures**

A number of Municipal Homes reported allocating some or all of their NPC increase to “Other” expenditure items. Four facilities had spent between 23 and 100% of their increases to offset costs in their NPC envelope, three noted undefined allocations (ranging between 42 and 70%) intended to avoid layoffs, and three provided no detail on their ‘other’ allocation. The remaining six facilities allocated some of their increase to a number of minor items that accounted for 1 to 8% of the increase.

**2.1.4 Distribution of Increase – Nursing Homes**

Figure 4, below, details the average allocation to each expenditure item for Nursing Homes.
Figure 4

Average Allocation - Nursing Homes

Staffing and Related

The average allocation for “Staffing and Related” items was 73.6% across all Nursing Homes; the largest of all expenditure areas.

- Direct care salaries and wages were allocated on average 64.7% of the total NPC increase by Nursing Homes.

- An average of 3.8% of NPC increases were allocated to administration salaries and wages.

- Medical director fees received an increase allocation of 3.9% of each facility’s NPC increase.

- On average, 1.2% of Nursing Homes’ NPC increase was allocated to staff education.
Supplies and Equipment

The average allocation for “Supplies and Equipment” by Nursing Homes was 18.9% of the total NPC increase. It breaks down as follows:

- The average allocation to incontinence supplies by Nursing Homes was 13.8% of the total NPC increase.
- The average allocation to other supplies was 2.0% of the total NPC increase.
- Equipment purchases were allocated an average allocation of 3.1% of the total NPC increase.

Other Expenditures

A number of Nursing Homes also reported allocating some or all of their NPC increase to “Other” expenditure items. Six facilities had spent between 16 and 100% of their increase to offset costs in their NPC envelope, three noted undefined allocations (ranging between 13 and 78%) intended to avoid layoffs, and three provided no detail on their ‘other’ allocation.

2.1.5 Allocation of Increase – Observations

- On average, 65.8% of each facility’s increase was allocated to Direct Care S&W; 13.4% was allocated to Incontinence Supplies; and 5.7% to “other” expenditure items.

- Allocation patterns were basically the same across all three facility types. Direct Care S&W accounted for the largest average allocation in all cases. The average allocation by Charitable Homes was the largest (69.4%), followed by Municipal Homes (67.5%) and Nursing Homes (64.7%).

- Incontinence supplies was also the second largest average allocation for all facility types with Nursing Homes allocating the largest portion of their increase (23.8%) followed by Municipal Homes (13.1%); and Charitable Homes (12.2%).
Facility types differed somewhat in the third largest expenditure item. Municipal Homes and Nursing Homes allocated, on average, 5.8% and 6.3% of their increase to “Other” expenditure items, respectively. However, Charitable Homes’ third largest allocation was directed to Administration Salaries and Wages. “Other” expenditure items were allocated on average only 2.6% of their increase.

2.2 Human Resources – Before and After

The survey estimates a total of approximately 42,738 individuals worked full or part time in the NPC area of LTC facilities in July 2002. In March 2003, the total number of individuals employed in the NPC area had grown to an estimated 45,088, an increase of 2,350 individuals. Table 1, below, details the distribution of employees across the three LTC sectors both before and after the NPC increase.

<table>
<thead>
<tr>
<th>Facility Type</th>
<th>Number of NPC Employees (Full and Part Time)</th>
<th>Pre-Increase</th>
<th>Post-Increase</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charitable Homes</td>
<td>6,081</td>
<td>6,354</td>
<td>273</td>
<td></td>
</tr>
<tr>
<td>Municipal Homes</td>
<td>7,380</td>
<td>7,803</td>
<td>424</td>
<td></td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>29,277</td>
<td>30,931</td>
<td>1,653</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>42,738</td>
<td>45,088</td>
<td>2,350</td>
<td></td>
</tr>
</tbody>
</table>

The questionnaire collected data on total daily on-site hours and the number of full-time equivalents (FTEs) created. FTEs are based on hours of labour rather than a count of full and part time employees. FTEs are calculated by taking the total number of employee work hours over a given period and dividing them by the number of hours a full time employee would work over the same period. The use of FTEs as a measure of labour is key in the current case, as a good proportion of the funding increase went towards increasing the hours of part-time employees.

In the following four sections, the pre and post-NPC human resource changes are assessed. In section 2.2.1, the overall change across all facilities is considered. Each of the subsequent
sections then assesses the change within each of the three LTC facility types (i.e. Charitable Homes, Municipal Homes and Nursing Homes).

### 2.2.1 FTE Changes: All Facilities

Table 2, below, details the number of FTEs with the NPC sector by staff type.

**Table 2**  
**FTE Change - All Facilities**

<table>
<thead>
<tr>
<th>NPC Personnel</th>
<th>Total July/02</th>
<th>Total Mar/03</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNs</td>
<td>3,352.14</td>
<td>3,444.82</td>
<td>92.67</td>
</tr>
<tr>
<td>RPNs</td>
<td>4,213.36</td>
<td>4,481.59</td>
<td>268.23</td>
</tr>
<tr>
<td>PSWs</td>
<td>18,549.68</td>
<td>19,823.58</td>
<td>1,273.90</td>
</tr>
<tr>
<td>Other Direct Care</td>
<td>298.71</td>
<td>336.86</td>
<td>38.15</td>
</tr>
<tr>
<td>Director of Nursing</td>
<td>497.21</td>
<td>498.10</td>
<td>0.89</td>
</tr>
<tr>
<td>Assistant Dir. Of Nursing</td>
<td>192.25</td>
<td>212.00</td>
<td>19.75</td>
</tr>
<tr>
<td>Infection Control</td>
<td>45.13</td>
<td>50.62</td>
<td>5.49</td>
</tr>
<tr>
<td>Nurse Educators</td>
<td>64.65</td>
<td>87.96</td>
<td>23.31</td>
</tr>
<tr>
<td>Other Nursing Admin</td>
<td>380.09</td>
<td>440.15</td>
<td>60.06</td>
</tr>
<tr>
<td><strong>All NPC Personnel</strong></td>
<td><strong>27,593.21</strong></td>
<td><strong>29,375.67</strong></td>
<td><strong>1,782.46</strong></td>
</tr>
</tbody>
</table>

Weighted

- The NPC area of the LTC workforce included 27,593 FTEs prior to the NPC increase. That number increased by 1,782 FTEs to 29,376 by March of 2003, eight months after the announcement of the increase.

- The greatest increases were within direct care personnel (RNs, RPNs, PSWs, and Other Direct Care) where the total increase was 1,672.95 FTEs (or 94% of the total increase). This compares to direct care support and administration positions (see shared area in Table 4) that increased by 110.5 FTEs.

**Avoided Layoffs**
Given that the CMI determines a facility’s NPC funding allocation from the Ministry, facilities plan their NPC staffing needs based on this annual measure. Facilities may increase or decrease staff according to their CMI. In cases where a facility receives a lower CMI than the previous year, the facility may at its discretion consider laying off or reducing hours of its NPC staff as its resident population has lighter care needs.

Survey respondents were asked if the rate increase had allowed them to avoid any planned layoffs and, if so, how many FTE layoffs were avoided. Table 3, below, presents the estimated number of layoffs avoided for all facilities as well as those within each sector.

Table 3
Layoffs Avoided

<table>
<thead>
<tr>
<th>Home Type</th>
<th>Number of Facilities</th>
<th>FTE Layoffs Avoided</th>
<th>Average Avoided (per reporting facility)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charitable Homes</td>
<td>22</td>
<td>89.74</td>
<td>4.09</td>
</tr>
<tr>
<td>Municipal Homes</td>
<td>31</td>
<td>86.73</td>
<td>2.77</td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>124</td>
<td>368.37</td>
<td>2.98</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>177</strong></td>
<td><strong>544.85</strong></td>
<td><strong>3.08</strong></td>
</tr>
</tbody>
</table>

- At least 33% of facilities avoided planned layoffs as a result of the NPC increase. In total, 544.85 FTEs were saved.
- Overall, 544.85 FTE layoffs avoided (0.8 per 100 beds). This was over a period where CMIs remained unchanged.5

2.2.2 FTE Changes: Charitable Homes

Table 4, below, details the number of FTEs within the LTC facility sector by staff type for Charitable Homes.

5 Although CMIs did not change within the pre and post increase period, facilities were advised of their CMI reassessment results. It is possible that some facilities had made HR adjustments (both increases and decreases) in advance of their pending CMI change.
• The NPC area within the Charitable Homes workforce included 4,351.63 FTEs prior to the NPC increase. Following the NPC increase, the workforce FTEs increased by 245.70 to 4,597.32 in March of 2003.

• The greatest increases were within direct care personnel (RNs, RPNs, PSWs, and Other Direct Care) where the total increase was 216.71 FTEs (or 88% of the total increase). Within the direct care grouping, PSWs had the largest increase (170.97 FTEs).

Table 4
FTE Change - Charitable Homes for the Aged

<table>
<thead>
<tr>
<th>NPC</th>
<th>Total</th>
<th>Total</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNs</td>
<td>501.40</td>
<td>521.21</td>
<td>19.81</td>
</tr>
<tr>
<td>RPNs</td>
<td>793.66</td>
<td>820.20</td>
<td>26.54</td>
</tr>
<tr>
<td>PSWs</td>
<td>2,814.58</td>
<td>2,985.56</td>
<td>170.97</td>
</tr>
<tr>
<td>Other Direct Care</td>
<td>78.44</td>
<td>77.83</td>
<td>-0.61</td>
</tr>
<tr>
<td>Director of Nursing</td>
<td>61.47</td>
<td>62.20</td>
<td>0.73</td>
</tr>
<tr>
<td>Assistant Dir. Of Nursing</td>
<td>23.95</td>
<td>29.96</td>
<td>6.01</td>
</tr>
<tr>
<td>Infection Control</td>
<td>8.25</td>
<td>8.49</td>
<td>0.24</td>
</tr>
<tr>
<td>Nurse Educators</td>
<td>8.59</td>
<td>20.65</td>
<td>12.06</td>
</tr>
<tr>
<td>Other Nursing Admin</td>
<td>61.29</td>
<td>71.23</td>
<td>9.94</td>
</tr>
<tr>
<td><strong>All NPC Personnel</strong></td>
<td><strong>4,351.63</strong></td>
<td><strong>4,597.32</strong></td>
<td><strong>245.70</strong></td>
</tr>
</tbody>
</table>

Weighted

• The “Direct Care Support and Administration” grouping (see shared area in Table 4) increased by 28.98 FTEs. Within that grouping Nurse Educators experienced the greatest increase, which was 12.06 FTEs.

• Overall, within the Charitable Homes segment, there was an increase of 245.7 FTEs (2.7 per 100 beds).

2.2.3 FTE Changes: Municipal Homes
Table 5, below, details the number of FTEs with the LTC facility sector by staff type for Municipal Homes.

**Table 5**

<table>
<thead>
<tr>
<th>NPC</th>
<th>Total</th>
<th>Total</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>RNs</td>
<td>572.61</td>
<td>598.04</td>
<td>25.43</td>
</tr>
<tr>
<td>RPNs</td>
<td>673.44</td>
<td>737.45</td>
<td>64.01</td>
</tr>
<tr>
<td>PSWs</td>
<td>3,172.89</td>
<td>3,499.15</td>
<td>326.26</td>
</tr>
<tr>
<td>Other Direct Care</td>
<td>31.32</td>
<td>45.27</td>
<td>13.95</td>
</tr>
<tr>
<td>Director of Nursing</td>
<td>93.67</td>
<td>92.55</td>
<td>-1.13</td>
</tr>
<tr>
<td>Assistant Dir. Of Nursing</td>
<td>32.03</td>
<td>36.08</td>
<td>4.05</td>
</tr>
<tr>
<td>Infection Control</td>
<td>9.84</td>
<td>11.78</td>
<td>1.94</td>
</tr>
<tr>
<td>Nurse Educators</td>
<td>12.02</td>
<td>14.09</td>
<td>2.07</td>
</tr>
<tr>
<td>Other Nursing Admin</td>
<td>58.35</td>
<td>66.49</td>
<td>8.15</td>
</tr>
<tr>
<td>All NPC Personnel</td>
<td>4,656.16</td>
<td>5,100.89</td>
<td>444.73</td>
</tr>
</tbody>
</table>

*Weighted

• The NPC area within the Municipal Homes workforce included 4,656.16 FTEs prior to the NPC increase. Following the NPC increase, the workforce FTEs increased by 444.73 to 5,100.89.

• As is the case with all facility segments, the greatest increases were within direct care personnel (RNs, RPNs, PSWs, and Other Direct Care) where the total increase was 429.65 FTEs (or 97% of the total increase). Within the direct care grouping, PSWs enjoyed the largest increase (326.36 FTEs).

• The direct care support and administration grouping (see shaded area in Table 5) increased by 15.08 FTEs. Within that grouping, “Other Nursing Admin.” experienced the greatest increase, which was 8.15 FTEs.

• Overall, within the Municipal Homes segment, there was an increase of 444.73 FTEs (2.7 per 100 beds).

### 2.2.4 FTE Changes: Nursing Homes
Table 6, below, details the number of FTEs within the LTC facility sector by staff type for Nursing Homes.

### Table 6

**FTE Change - Nursing Homes**

<table>
<thead>
<tr>
<th>NPC Personnel</th>
<th>Total July/02</th>
<th>Total Mar/03</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RNs</strong></td>
<td>2,278.13</td>
<td>2,325.57</td>
<td>47.44</td>
</tr>
<tr>
<td><strong>RPNs</strong></td>
<td>2,746.27</td>
<td>2,923.94</td>
<td>177.67</td>
</tr>
<tr>
<td><strong>PSWs</strong></td>
<td>12,562.20</td>
<td>13,338.87</td>
<td>776.67</td>
</tr>
<tr>
<td><strong>Other Direct Care</strong></td>
<td>188.96</td>
<td>213.76</td>
<td>24.80</td>
</tr>
<tr>
<td><strong>Director of Nursing</strong></td>
<td>342.06</td>
<td>343.35</td>
<td>1.29</td>
</tr>
<tr>
<td><strong>Assistant Dir. Of Nursing</strong></td>
<td>136.27</td>
<td>145.97</td>
<td>9.69</td>
</tr>
<tr>
<td><strong>Infection Control</strong></td>
<td>27.04</td>
<td>30.35</td>
<td>3.30</td>
</tr>
<tr>
<td><strong>Nurse Educators</strong></td>
<td>44.04</td>
<td>53.23</td>
<td>9.18</td>
</tr>
<tr>
<td><strong>Other Nursing Admin</strong></td>
<td>260.45</td>
<td>302.43</td>
<td>41.97</td>
</tr>
<tr>
<td><strong>All NPC Personnel</strong></td>
<td><strong>18,585.43</strong></td>
<td><strong>19,677.46</strong></td>
<td><strong>1,092.03</strong></td>
</tr>
</tbody>
</table>

*Weighted*

- The NPC area within the Nursing Homes workforce included 18,585.46 FTEs prior to the NPC increase. Following the NPC increase, the workforce FTEs increased by 1,092.03 to 19,677.46.

- As is the case with all facility segments, the greatest increases were within direct care personnel (RNs, RPNs, PSWs, and Other Direct Care) where the total increase was 1,026.58 FTEs accounting for 94% of the total increase. Within the direct care grouping, PSWs showed the largest increase (776.67 FTEs).

- The direct care support and administration grouping (see shaded area in Table 6) increased by 65.45 FTEs. Within that grouping “Other Nursing Admin” experienced the greatest increase, which was 41.97 FTEs.

- Overall, within the Nursing Homes segment, there was an increase of 1,092.03 FTEs (2.8 per 100 beds).
2.2.5 *FTE Changes – Observations*

- There was an estimated total increase of 1,782.5 FTEs (2.8 FTE per 100 beds) in the LTC NPC workforce following the NPC increase.

- The different facility types were similar in terms of FTE increases per 100 beds. Nursing homes had the largest proportionate increase with 2.8 FTEs per 100 beds, exclusive of avoided layoffs. Municipal and Charitable Homes each had an increase of 2.7 FTEs per hundred beds, exclusive of avoided layoffs.

- The largest proportion of FTE increases within direct care personnel (RNs, RPNs, PSWs, and Other Direct Care) were found in Municipal Homes where direct care FTEs accounted for 97% of the total increase. Nursing Homes dedicated 94% of their new FTEs to direct care, and Charitable Homes dedicated 88% of their FTEs to direct care.

- Also, it is estimated that 544.9 (0.8 per 100 beds) layoffs were avoided as a result of the increase. The Charitable and Nursing Homes sectors benefited the most in terms of layoffs avoided, avoiding roughly 1.0 FTE layoff per 100 beds (1.0 and 0.9, respectively), while only 0.5 FTE per 100 beds were avoided in the Municipal sector.

2.3 *Improvements Benefiting Residents*

Respondents were asked a qualitative question regarding how the NPC funding increase had enabled improvements in the quality of care for facility residents.

Approximately 26% mentioned items discussed elsewhere in this report, that is, they noted increases in staff, staff education, improvements to staff/resident ratios, and the purchase of incontinence supplies.

Comments have been grouped into the seven categories found in Table 7 below.
### Table 7: Improvements

<table>
<thead>
<tr>
<th>Improvements Mentioned</th>
<th>Percent of Mentions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased Time, Quality Programming</td>
<td>45%</td>
</tr>
<tr>
<td>Improved Bathing (increase frequency and/or duration)</td>
<td>21%</td>
</tr>
<tr>
<td>Improved Safety and Monitoring</td>
<td>9%</td>
</tr>
<tr>
<td>No benefits, No change or More Funding Needed</td>
<td>8%</td>
</tr>
<tr>
<td>Improved Staff and/or Resident Morale</td>
<td>7%</td>
</tr>
<tr>
<td>Increased Exercise</td>
<td>5%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

Forty-five percent of the improvements mentioned involved “increased time and quality programming.” These included general comments about enhanced quality of care, to very specific improvements such as the introduction of “Gentlecare.” In between, respondents noted increased time for nurses and personal support workers to focus on resident care, admissions, orientation, assessment, personal grooming, and social interaction. Others noted an improved capacity to attend to residents with dementia and behavioural issues.

The next most common improvement, accounting for 21% of all comments, dealt with the ability to provide improved bathing services of increased duration, quality and/or duration of baths, to residents.

Improved resident and staff safety and monitoring accounted for 9% of noted improvements and enhancements. Staff, resident and/or family morale or satisfaction” accounted for another 7%.

Almost 1 in 10 comments (8%) said that additional funding was still required to increase improvements to residents.

Increased exercise opportunities for residents accounted for 5% of the improvements mentioned (exercise opportunities included were both ambulatory and restorative). A range of miscellaneous ‘other’ improvements accounted for the remaining 5%.

**Conclusion**
A response rate of 76%, or 412 useable questionnaires, was obtained.

**Allocation of Increase**

On average, 65.8% of each facility's increase was allocated to Direct Care salaries and wages; 13.4% was allocated to incontinence supplies; and 5.7% to “other” expenditure items.

**HR Impact**

The survey estimates a total of 42,738 full or part time individuals in the NPC area of the LTC facilities workforce in July 2002. In March 2003, the total number of individuals employed in the NPC area had grown to an estimated 45,088, an increase of 2,350 individuals.

In terms of full-time equivalents (FTE), this translates into an estimated total increase of 1,782.5 FTEs in the NPC area of the LTC facilities workforce.

The survey findings indicate that 544.9 FTEs layoffs were avoided.

**Improvements in Quality of Resident Care**

Forty-five percent of the improvements mentioned involved “increased time and quality programming.” Respondents noted increased time for nurses and personal support workers to focus on resident care, admissions, orientation, assessment, personal grooming, and social interaction. Others noted an improved capacity to attend to residents with dementia and behavioural issues.
Appendix A

Cover Letter and Survey Questionnaire
March 7, 2003

Dear Long-Term Care Facility Administrator:

Effective August 1, 2002, the Ministry of Health and Long-Term Care increased funding to the nursing and personal envelope by $100 million province-wide, which translated into an additional $6.33 per resident per day, for a facility with a Case Mix Index of 100.

The Ministry of Health and Long-Term Care is interested in assessing the budgetary and human resource impacts of the funding increase. In order to assist us in doing so we ask that you please respond to this brief survey. All responses will be held in strict confidence.

Should you have any questions concerning the survey please contact:

Diane Echlin at (613) 278-2192

If you wish to obtain an electronic version of the questionnaire, please e-mail your request to:

nursedi@perth.igs.net

We ask that the completed survey be return to Sigma-3 Policy Research Inc. at the address, or e-mail, noted below, by March 21, 2003.

Sigma-3 Policy Research Inc.
244 Dupont Street
Toronto, Ontario
M5R 1V7

Attn: Dan Buchanan
Tel. (416) 922-5666
E-mail: npcsurvey@sigma3.ca

Thank you in advance for your assistance with this policy survey.

Sincerely,

Paul Tuttle
Director, Long-Term Care Facilities Branch
Nursing and Personal Care Expenditure Survey

Facility Name: ____________________________________________

LTC Vendor ID: ____________________________________________

No. of Approved / Licensed Beds in:

<table>
<thead>
<tr>
<th>Month</th>
<th>CMI - 2001</th>
<th>CMI - 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2002</td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2003</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Section A – Budget and Expenditure Impacts

1. Please indicate your facility’s nursing and personal care (NPC) operating budget per resident per day:

   As of July 2002: _________ (per resident per day)
   As of March 2003: _________ (per resident per day)

2. Please include any comments regarding the budget impact of the NPC increase:

3. Please indicate the percentage distribution of the August 2002 NPC increase across the various budget items noted below. This breakdown should reflect your NPC increase only, not your total NPC budget.

   Education: ______________________ %
   Supplies:
   - Incontinence: ______________________ %
   - Other supplies: ______________________ %
   Equipment: ______________________ %
   Salaries and Benefits:
   - Direct Care: ______________________ %
   - Admin - Nursing Care*: ______________________ % (*includes Director / Assistant Director of Care, Infection Control Practitioners, Staff Educators, and related)
   - Medical Director Fees: ______________________ %
   Other: ______________________ % Specify ‘other’: ______________________

NPC Funding Increase Survey
Sigma-3 Policy Research Inc.
Section B – Human Resource Impacts

4. In the table below, please enter the number of staff (full-time and part-time), FTE's, and total daily on-site hours for each of the various position types that you had before, and then after, receiving your NPC funding increase. Please ensure that ALL staff are reflected in this table whether or not their numbers were affected by the funding increase.

<table>
<thead>
<tr>
<th>Staff Type</th>
<th>Human Resources Impact Detail</th>
<th>Pre-Increase</th>
<th>Post-Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Staff</td>
<td>Number of Staff</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FTE's</td>
<td>FTE's</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Daily On-site Hours</td>
<td>Total Daily On-site Hours</td>
</tr>
<tr>
<td>RN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RPN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSW / Health Care Aides</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Direct Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Director of Care / Nursing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assist. Dir. Of Care / Nursing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Infection Control Practitioner</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff Educator</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Admin - Nursing Care</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specify Position:</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. In your estimation, were any lay-offs avoided as a result of the additional nursing and personal care funding? (Check one)

Yes □       If Yes, how many FTE's lay-offs were avoided? □
No □

6. Please include any additional comments you may have regarding the human resource impact of the NPC funding increase.
7. In your view, how has the NPC funding increase enabled improvements in the quality of care for your residents? Please provide specific examples.

Completed by:
Name: 
Signature: 
Position: 
E-mail: 
Date: 

Thank you for your cooperation. In order to make these requests as easy as possible, we would like to ensure that we are asking for information through a medium that is most convenient to you. Please check the medium that would be best for you.

Mail / Paper Questionnaires
Web-based - online questionnaires
E-mail - electronic questionnaires

If you have Internet access please provide the appropriate e-mail address for us to direct future communications.

E-mail: 

Please return the completed survey be return to Sigma-3 Policy Research Inc. at the address, or email, noted below, by March 21, 2003.

Sigma-3 Policy Research Inc.
244 Dupont Street
Toronto, Ontario
M5R 1V7

Attn: Dan Buchanan
Tel. (416) 922-5666

e-mail: npcsurvey@sigma3.ca
Appendix B

Technical Appendix
A1. Responses and Response Rate

The following outlines the population and the distribution of responses:

- Population = 544
- Final Sample = 412
- Response Rate = 76%
- Missing/Excluded/Non-response = 132
  - Non-response = 75
  - Incomplete = 27
  - New Facilities = 16
  - Bankrupt = 14

A2. Weighting

Table 8 provides the population and sample distributions, and the weights used to estimate the province-wide and facility type human resource change estimates.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Facilities</th>
<th>Percent</th>
<th>Sample</th>
<th>Weight</th>
<th>Weighted N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charitable Homes</td>
<td>67</td>
<td>12.32</td>
<td>55</td>
<td>1.2182</td>
<td>67</td>
</tr>
<tr>
<td>Municipal Homes</td>
<td>99</td>
<td>18.20</td>
<td>79</td>
<td>1.2532</td>
<td>99</td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>378</td>
<td>69.49</td>
<td>278</td>
<td>1.3597</td>
<td>378</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>544</strong></td>
<td><strong>1.0</strong></td>
<td><strong>412</strong></td>
<td></td>
<td><strong>544</strong></td>
</tr>
</tbody>
</table>
A3. Margin of Error

The confidence intervals for the 3 facility types and for all facilities are detailed in Table 9 below.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Sample</th>
<th>95% Confidence (19 time out of 20)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charitable Homes</td>
<td>55</td>
<td>+/- 5.6%</td>
</tr>
<tr>
<td>Municipal Homes</td>
<td>79</td>
<td>+/- 5.0%</td>
</tr>
<tr>
<td>Nursing Homes</td>
<td>278</td>
<td>+/- 3.0%</td>
</tr>
<tr>
<td>Total</td>
<td>412</td>
<td>+/- 3.4%</td>
</tr>
</tbody>
</table>

A4. Survey Limitations

The report does not:

- Include results on an individual facility basis;
- Extend beyond the LTC facilities sector;
- Include an analysis of dollar value measures; or
- Differentiate among facility classes (i.e. A, B, C or D, for or not-for profits, etc) or region breakdown.

Also, pre and post increase human resource measures do not attempt to control for any of the many other events (e.g. provincial, federal or professional hiring initiatives) that may have affected human resource levels within the sector.