

## Context

Personal support workers (nursing assistants in the U.S.) provide the vast majority of direct care to residents in Long-Term Care (LTC) Homes. Consistency among personal support worker staff is considered essential in ensuring quality of care in LTC. In Ontario however, the research examining PSW turnover levels is limited. This study begins to explore PSW turnover. It is important not only to understand turnover levels among PSWs but also what home characteristics and supports are associated with turnover.

## Objectives

- To determine the level of turnover among full and part-time personal support worker (PSW) staff in Ontario LTC Homes
- To examine whether LTC home characteristics, retention and training opportunities are associated with turnover.

## Methods

### Design

- Cross-sectional survey of Senior Management in Ontario LTC Homes linked to Ontario Ministry of Health and Long Term Care (MOHLTC) secondary staffing data.

### Study Sample and Measures

- Administrators at all Ontario LTC Homes (n=620) were e-mailed a request to complete an on-line survey in conjunction with their Director of Care. The survey examined senior management and organization characteristics, human resource and quality improvement practices provided in Ontario LTC Homes. The survey requested permission to access MOHLTC staffing data pertaining to each participant's home. Survey data was linked to MOHLTC staffing data for homes providing consent (n=188).
- Rate of turnover was calculated as the sum of PSWs who left voluntarily or involuntarily over the past 12 months (reported by Administrators) divided by the sum of PSWs employed at the start of the period at each Home. All analyses were conducted separately for part-time (PT) and full-time (FT) nursing staff.
- High turnover was defined as turnover in the highest quartile by staff category.

### Analysis

FT PSW staff:

- Logistic regression analyses were conducted to detect the association between having high PSW turnover and the following factors: home characteristics, human resource and education supports, quality improvement (QI). The resulting model is outlined in Table 1. The model forced inclusion of Home characteristics and used stepwise regression to identify other independent predictors of PSW turnover rate.

PT PSW staff:

- A similar regression approach was used for PT PSW staff model (same independent variables included). The model is presented in Table 2.

**Table 1: Population Characteristics & Multivariate Logistic Regression Model for Full-Time Personal Support Worker Staff Turnover (n=188)**

	Low Turnover n (column %) or median	High Turnover n (column %) or median	Overall	Adjusted Odds Ratio (95% CI)
PSW FT Turnover	141 (75%)	47 (25%)		-----
Chain				
No	37 (26.2%)	13 (27.7%)	50 (26.6%)	
Yes	104 (73.8%)	34 (72.3%)	138 (73.4%)	1.53 (0.61,3.86)
Governance				
Corporate	49 (34.8%)	12 (25.5%)	61 (32.5%)	
Charitable	38 (27.0%)	15 (31.9%)	53 (28.2%)	1.613 (0.56,4.65)
Municipal	26 (18.4%)	10 (21.3%)	36 (19.1%)	1.49 (0.51,4.31)
Private	28 (19.9%)	10 (21.3%)	38 (20.2%)	1.09 (0.38,3.17)
Bed Size				
<80	30 (22.3%)	20 (42.6%)	50 (26.6%)	
80-140	47 (33.3%)	13 (27.7%)	60 (31.9%)	0.32 (0.13,0.80)**
>140	64 (45.4%)	14 (29.8%)	78 (41.5%)	0.25 (0.1,0.62)**
Human Resource Utilization				
<=3	19 (13.5%)	13 (27.7%)	32 (17%)	
3-4	51 (36.2%)	16 (34%)	67 (35.6%)	0.46 (0.17,1.2)*
>=4	71 (50.4%)	18 (38.3%)	89 (47.3%)	0.39 (0.15,1.03)*
Median number of Practice Guidelines	9	9	9	0.938 (0.86,1.02)*

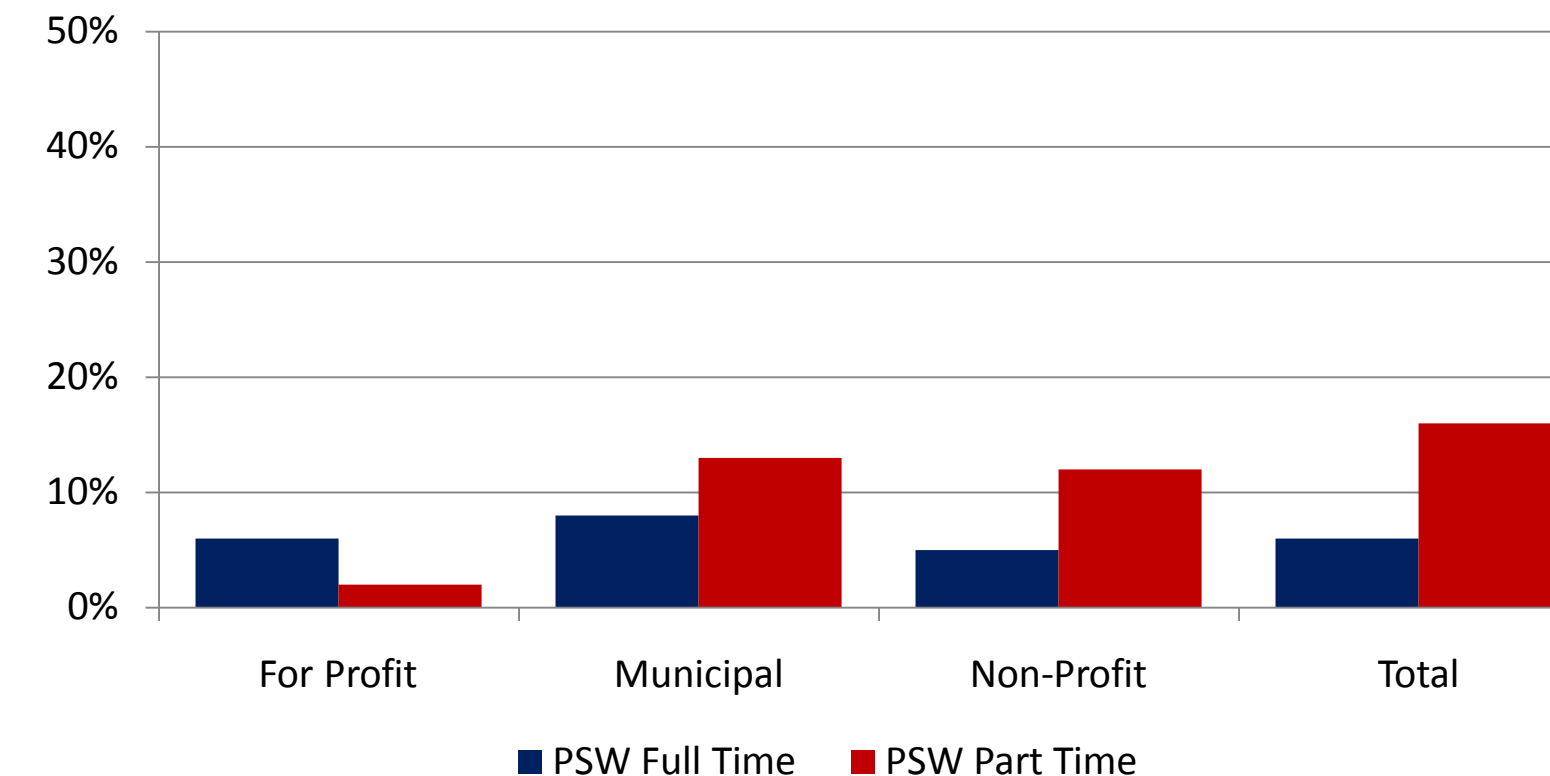
Note:  
\*p<0.15; \*\*p<0.05

**Table 2: Population Characteristics & Multivariate Logistic Regression Model for Part-Time Personal Support Worker Staff Turnover (n=188)**

	Low Turnover n (column %) or median	High Turnover n (column %) or median	Overall	Adjusted Odds Ratio (95% CI)
PSW PT Turnover	141 (75%)	47 (25%)	188	-----
Chain				
No	39 (27.7%)	102(72.3%)	141 (75%)	-----
Yes	11 (23.4%)	36 (76.6%)	47 (25%)	1.98 (0.75,5.28)
Governance				
Corporate	47 (33.3%)	14 (29.8%)	61 (32.5%)	-----
Charitable	42 (29.8%)	11 (23.4%)	53 (28.2%)	0.95 (0.33,2.73)
Municipal	30 (22.3%)	6 (12.8%)	36 (19.2%)	0.65 (0.21,2.02)
Private	22 (15.6%)	16 (34%)	38 (20.2%)	1.88 (0.7,5.051)
Bed Size				
<80	32 (22.7%)	18 (38.3%)	50 (26.6%)	
80-140	41 (29.1%)	19 (40.4%)	60 (31.9%)	0.89 (0.38,2.10)
>140	68 (48.2%)	10 (21.3%)	78 (41.5%)	0.29 (0.11,0.76)**
Culture Balance	0.60	0.60	0.60	1.06 (0.54,20.71)
PSW on-site training participation	0.75	1.0	0.75	0.22 (0.07,0.69)**

Note:  
\*\*p<0.05

### Annual PSW Turnover Rate



## Results

- Average Levels of Turnover in Ontario were 6.5% for full time and 16% for part time PSW staff with the top quartile defined as above 7.5% and 21% respectively.
- >51% of PSW care hours were provided by part time staff
- >Different variables were associated with turnover in full time compared to part time PSW staff.
- >Larger homes (>140 beds for part time and >80 for full time) were associated with higher turnover among PSWs in Ontario
- > Participation in on-site education and training was negatively associated with high part time PSW turnover while clinical practice guideline implementation was negatively associated with full time PSW turnover. Human resource implementation followed a similar trend (negative association with turnover) but was not significant at the p<0.05 level.

## Limitations

- This study is based on Administrator self-report. Although a 54% response rate was achieved and analyses support our sample reflect the population of Homes in Ontario, non response and response error are possible.
- In addition, turnover data was limited by homes agreeing to use of ministry data, thereby reducing our power.
- The cross-sectional nature of our data limit interpretation to associations rather than causal ordering among independent variables and turnover.

## Conclusions, Policy Implications & Future Research

- These results indicate that the factors associated with PSW turnover are different for full versus part time staff. Understanding these difference could have important implications for retention strategies for full versus part time staff. Differences between full and part time nursing staff were identified within this research project as well. Similar to the nursing study, it appears on site continuing education may be important for retention of part-time direct care staff. Human resource supports and guideline implementation were significant for full time PSW staff.
- Survey data of staff perceptions in a representative sample of 75 Ontario homes collected as a second phase of this research project will enable us to further examine factors relating to nursing turnover including job satisfaction and intent to leave.
- Understanding turnover levels and the reasons for turnover are key to developing policy and interventions that effectively promote retention of PSW staff.