



Survey Methods

Results from the Older Adults Falls Prevention Survey, 2012

Purpose

This document describes the development of the Older Adults Falls Prevention Survey, as well data collection and analysis methodology used for the survey.

Survey Methods

The survey was conducted by Nanos Research on behalf of OPH in December 2012. A representative sample of older adults living in Ottawa was found by randomly dialling telephone numbers of Ottawa residents and asking if anyone aged 65 years or older and speaking English or French lived there. In order to allow for analysis by age groups, three age group samples were collected.

A total of 1,050 interviews were completed: 400 for ages 65 to 74, 400 for ages 75 to 84 and 250 for ages 85 years and older. Figure 1 describes the sampling process. A response rate of 22.5% was calculated using the [Empirical Method](#) approved by the Marketing Research and Intelligence Association, equal to Responders, divided by (Responders + Non-responders).

Figure 1. Flowchart of random telephone survey sampling results

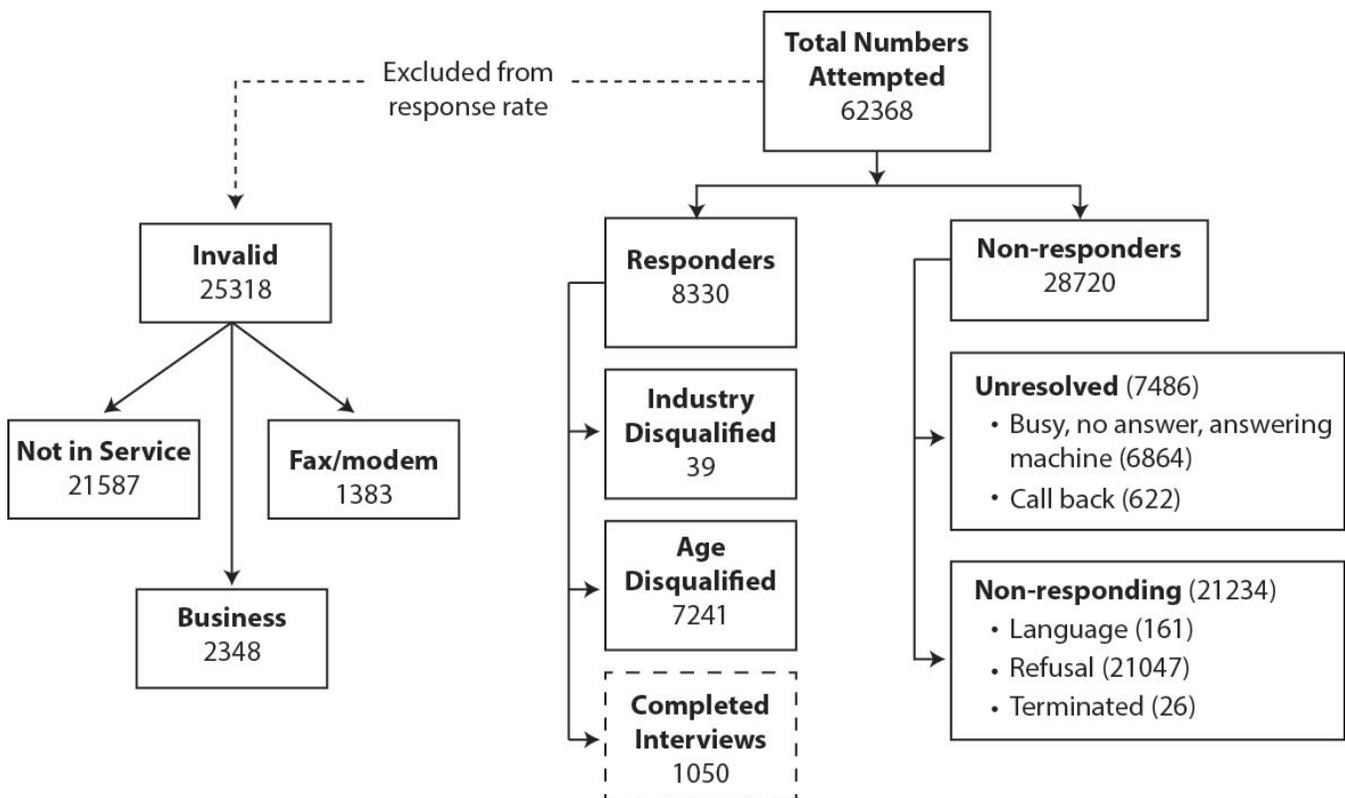


Table 1: Random telephone survey sampling results
Total numbers attempted = 62368

Responders	8330
Industry disqualified	39
Age disqualification	7241
Completions	1050

Non-responders	28720
Unresolved - busy, no answer, answering machine	6864
Unresolved - Call back	622
Refusals	21047
Mid-interview termination	26
Language in-eligible	161

Excluded from response rate calculation	25318
Invalid – Not in service	21587
Invalid - Fax/Modem	1383
Invalid- Business/non-residential	2348

Questionnaire

The questionnaire was developed to measure awareness and use of key behaviours that seniors can adopt to reduce their risk of falls, as supported in the current literature.⁽¹⁻⁴⁾ The questions were developed from established surveys, including Statistics Canada’s Canadian Community Health Survey on Aging (annual medical check up, review of medications and vision testing questions),⁽⁵⁾ the University of California San Francisco CHAMPS Physical Activity Questionnaire for Older Adults (physical activity questions with modifications),^(6, 7) as well as the Rapid Risk Factor Surveillance System conducted by the Institute of Social Research at York University, on behalf of various public health units in Ontario (falls prevention home hazards questions).⁽⁸⁾ Additional questions were developed to measure awareness of the key prevention behaviours as well as the frequency of calcium-rich food intake.

Analysis

Data were analyzed using Stata version 12. A statistical weighting technique was used at the analysis phase in order to generate results that were representative of the population distribution of seniors in Ottawa according to the 2011 Census. Point estimates are provided with 95% confidence intervals (CI) in smaller font and within brackets. The 95% CI includes the true value 95 times out of 100. E.g. if the point estimate for the percentage of seniors having a regular medical check-up is 90% (85%, 95%), then the range from 85% to 95% will contain the true population value 95% of the time. The narrower the confidence interval is, the more precise the estimate. 95% CI were not used to test for statistically significant differences; for comparisons among groups with large denominators, chi-square tests ($p < 0.05$) were used first, followed by a Bonferroni correction ($p < 0.05$) to adjust for multiple comparisons where appropriate.

The symbol * indicates that the estimate should be interpreted with caution due to high variability in responses, based on a coefficient of variation between 16.6 and 33.3. Results with a coefficient of variation greater than 33.3 were suppressed because they were unreliable.

Limitations

The survey included seniors aged 65 years and older who could speak English or French, were living in Ottawa and had a private phone number. Findings cannot be extrapolated to seniors living in long-term care homes, nursing homes, and hospitals.

The survey was conducted in December and some of the questions such as the physical activity and nutrition questions are subject to seasonal variations. Self-reporting likely results in over-reporting on some questions due to recall bias or social desirability bias, for example questions on physical activity.

The questionnaire did not address previous history of falls or other co-morbidities associated with an increased risk of falls. These factors would likely affect the extent of awareness and behaviours related to reducing a risk of falls.

Self-reports are useful for gaining insight into a population's physical activity levels, but they are known to over-estimate true energy expenditure and physical activity because of recall and response biases (e.g. inaccurate memory, providing a socially desirable response). As such, self-reported measurements do not capture the same amounts of physical activity as more direct measures (accelerometers, pedometers, etc.).⁽⁹⁾

Our results, however, mirror other self-reported physical activity data published in the Physical Activity Monitor 2008 of The Canadian Fitness and Lifestyle Research Institute.⁽¹⁰⁾

To date the majority of Canadian health behaviour and outcome data has been self-reported, but Canada has recently undertaken national, objective physical activity surveillance using accelerometry as part of the Canadian Health Measures Survey (CHMS). Unfortunately, the CHMS data is not available at the Ottawa level.

Since the survey was conducted in Ottawa, comparisons to other health units or the province are not possible.

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