Report 7: Falls Awareness

August 2017

Summary

- The 2016 Oxford Health Matters Survey (OHMS) was conducted for Oxford County Public Health (Public Health) to inform public health program development in new and emerging areas based on the needs and concerns of the community.

- Falls are common among older adults; between 28% to 35% of people 65 years and older fall at some point during the year.[1] Falls can cause serious injuries such as hip fractures, concussions and dislocations that can result in emergency department visits, hospital admissions and death.[2] It is important for aging residents to be aware of their risk of falling in later life and to take measures to prevent falls, such as staying physically active.

- However, it is important to recognize that there are also systemic factors that affect the risk of falling in older adults, such as poor building design, lack of access to health and social services, lack of community resources and low income and education levels.[1]

- Only 11% of adults 55 years and older were aware that a person aged 65+ has a one in three chance of falling at some point during the year.

- The majority (92.9%) of adults aged 55 years and older agreed (59.3% strongly agreed) that the chance of falling in later life is much less for people who have been physically active. Residents with post-secondary education were more likely to strongly agree than residents with less than high school education (72.0% versus 39.2%).

- Over half (65.7%) of adults aged 55 years and older thought that falling is a "normal" part of the aging process, which is a misconception as many falls are preventable.

Background

Falls awareness is an increasingly important issue as Oxford County's population continues to age. It is estimated that in 20 years (by 2037), 29% of the population in Oxford County will be 65 years and older.[3] Comparatively, in 2016, 19% of Oxford County was 65 years or older (Table 1) which is slightly higher than the Ontario proportion of 17%.[4] Falls are more likely to happen as people age; about 28% to 35% of adults 65 years and older will fall at some point during the year and this increases to 32% to 42% among adults 70 years and older.[1] Many risk factors, in addition to age, contribute to high fall rates in older adults. Individual risk factors include use of multiple medications or over-medication, increased alcohol use, lack of physical activity and chronic illnesses such as arthritis, Parkinson's disease and osteoporosis.[1] Other (systemic) risk factors include poor building design, such as insufficient lighting and uneven sidewalks, lack of access to health and social services, lack of community resources and low income and education levels.[1]

Table 1. Population aged 65 years and older, by age group, Oxford County, 2016[4]

Age group	Number	Per cent of total population
Total (65+)	20,685	18.7%
65 to 69	6,495	5.9%
70 to 74	4,875	4.4%
75 to 79	3,705	3.3%
80 to 84	2,795	2.5%
85 to 89	1,790	1.6%
90+	1,035	0.9%

Falls may lead to serious injuries such as hip fractures, concussions and dislocations which can result in loss of independence, difficult daily activities, emergency department and hospital visits as well as death.[2] In 2015, there were 1,374 fall-related emergency department visits in Oxford County among adults aged 65 years and older and 293 hospitalizations.[5] Injuries from falls accounted for 83% of all hospitalizations from injuries in 2015 among people 65 years and older in Oxford County[5] and, on average, the length of time spent in the hospital for fall-related injuries among people 65 years and older is nine days longer than hospitalizations for any cause.[2] In 2012, the rate of mortality from preventable causes, specifically injuries (e.g., falls, transport accidents, assault), among residents 65 to 74 years old in Oxford County was 51.6 per 100,000 population[6] and the potential years of life lost (PYLL)[a] was 268.5 years per 100,000 population.[7]

One of the responsibilities of Public Health is to implement programs that reduce the burden of illness from injuries, such as falls. The 2016 Oxford Health Matters Survey (OHMS) provides local data to help assess the need for falls awareness programs and may also inform falls prevention programs. Currently, Public Health strategies to increase falls awareness include sharing falls prevention information on the Oxford County public website.[8] In 2013, Public Health participated in a province-wide health promotion initiative called Finding Balance that aimed to increase awareness of ways to prevent falls among older adults, caregivers and health care professionals.[9] This included a media campaign that shared brochures and flyers with the community as well as education sessions with seniors' groups and caregivers in the community. Oxford County Public Health also works with a number of community organizations to coordinate our efforts to ensure a larger impact in reducing falls in our community.

Please see methods in the Data Notes for more information about the survey, sample, and how the numbers are calculated and displayed.
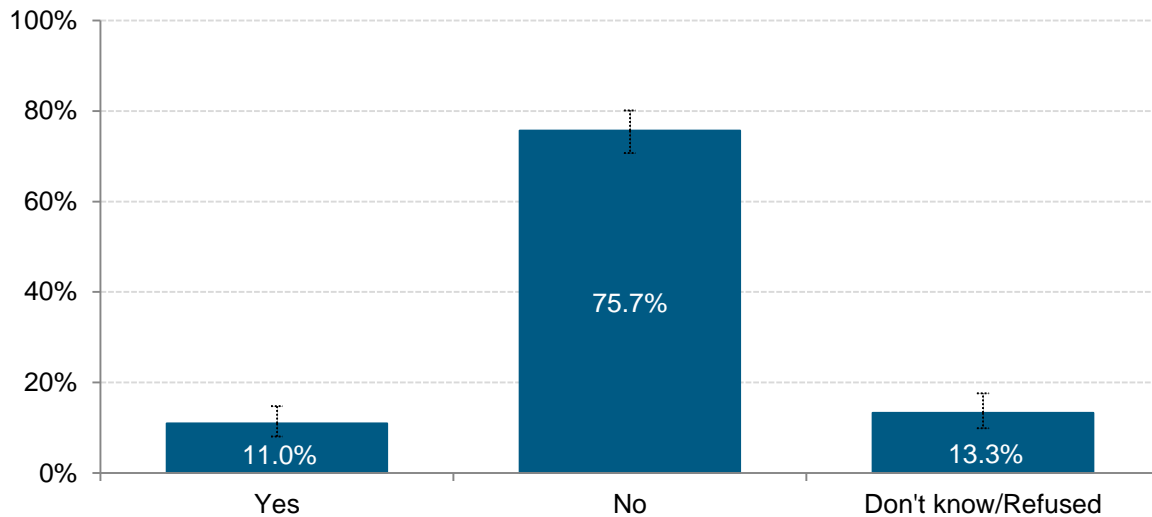
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[a] Potential years of life lost (PYLL) is the number of years of life not lived when someone dies "early", (before 75 years). For example, someone who dies at 65 years has lost 10 years of life.[11]

Results

Falls Awareness

Few adults aged 55 years and older (11.0%) were aware that a person aged 65 years or older has a one in three chance of falling at some point during the year (Figure 1; Appendix, Table 2).
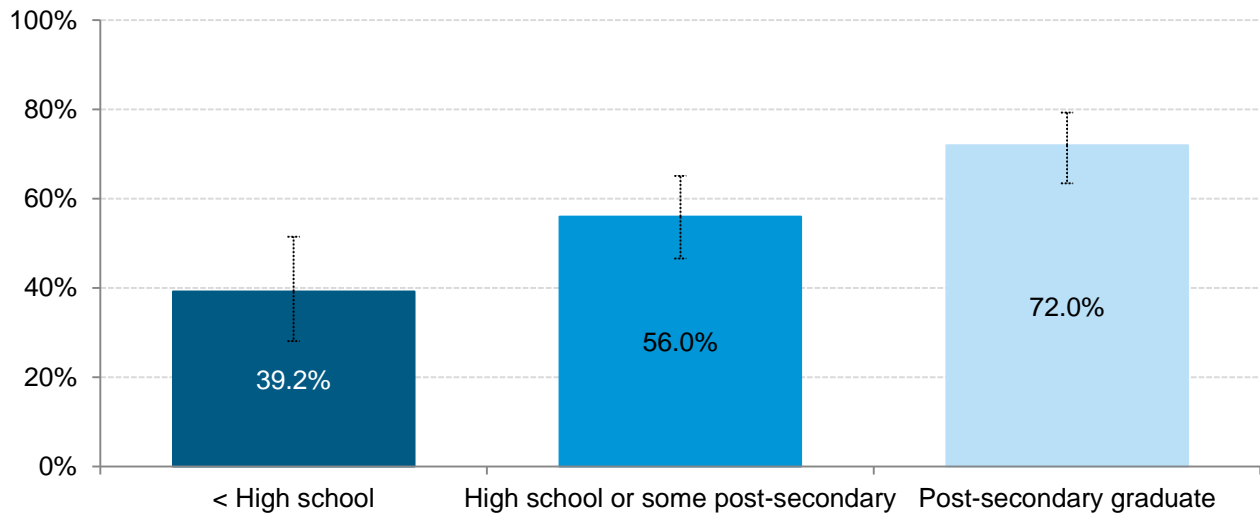
Figure 1. Aware of chance of falling for people aged 65+ among adults 55 years and older, Oxford County, 2016

The majority (92.9%) of adults aged 55 years and older agreed (59.3% strongly agreed and 33.6% somewhat agreed) that the chance of falling in later life is much less for people who have been physically active (Appendix, Table 2). Staying physically active reduces the chance of falling in later life because it contributes to healthy bones, muscles and joints which helps prevent the onset of health problems, such as osteoporosis, that can increase the risk of falling.[1] Physical activity also improves strength, balance, mobility and reaction time.
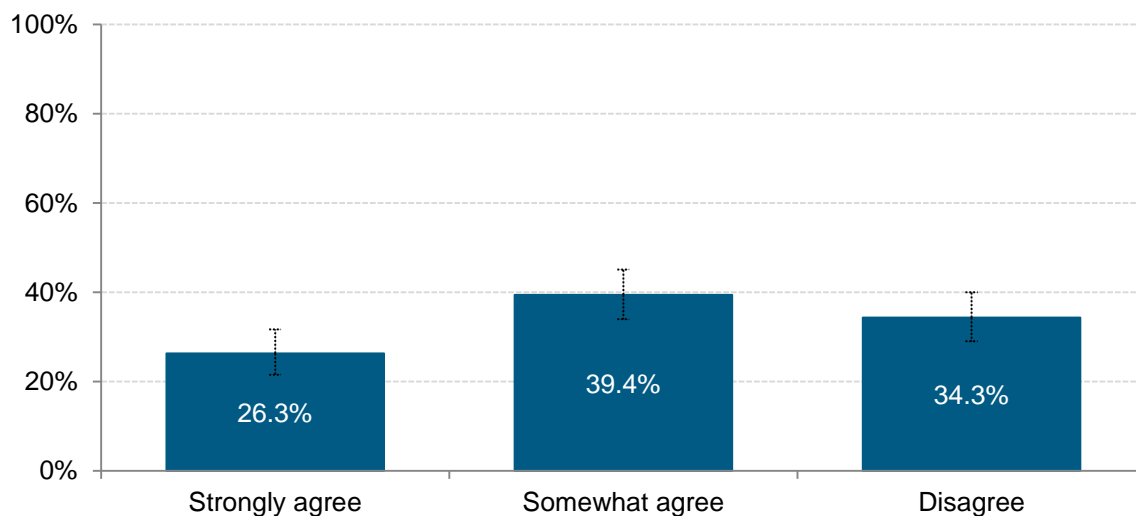
Residents with post-secondary education were more likely to strongly agree that the chance of falling in later life is much less for people who have been physically active than residents with less than high school education (72.0% versus 39.2%) (Figure 2; Appendix, Table 4).

Figure 2. Strongly agree that physical activity reduces chance of falling later in life, adults 55 years and older, Oxford County, 2016

Over half (65.7%) of adults aged 55 years and older thought that falling is a "normal" part of the aging process (26.3% strongly agreed and 39.4% somewhat agreed), which is a misconception (Appendix, Table 2). Although falls are common among older adults, they are not a normal part of the aging process as they can be prevented.

Figure 3. Agreement that falling is a normal part of the aging process, adults 55 years and older, Oxford County, 2016

Considerations

These findings suggest that there is a need to increase falls awareness among residents aged 55 years and older in Oxford County as many were unaware of the risks of falling or that falling is preventable and not necessarily a "normal" part of the aging process. In particular, messaging that reaches older adults and communicates that falls, while common, are a preventable part of aging may be beneficial. It is important for older adults to understand their risk of falling in later life so that they can take preventative measures, such as staying physically active, in order to reduce their risk of falling and subsequent injuries. It may be beneficial to consider targeting residents aged 55 years and older with less than high school education when promoting falls prevention strategies as this group was less likely to strongly agree that physical activity can reduce the chance of falling in later life.

Appendix: Tables

Table 2. Falls awareness among adults 55 years and older (n=363), by sex, Oxford County, 2016

Indicator	Responses	Per cent of residents (95% CI)		
		Overall	**Male**	**Female**
Aware of chance of falling for those 65 years and older	Yes	11.0% (8.1%-14.8%)	6.7%* (3.8%-11.7%)	15.5%* (10.9%-21.6%)
	No	75.7% (70.7%-80.1%)	77.1% (69.1%-83.5%)	74.3% (67.7%-79.9%)
	Don't know/Refused	13.3% (9.9%-17.6%)	16.2%* (10.7%-23.8%)	10.2%* (7.0%-14.7%)
Aware that physical activity reduces chance of falling later in life	Strongly agree	59.3% (53.5%-64.7%)	56.1% (47.3%-64.5%)	62.6% (55.5%-69.3%)
	Somewhat agree	33.6% (28.4%-39.2%)	36.2% (28.3%-44.9%)	30.9% (24.7%-37.8%)
	Disagree	7.1%* (4.7%-10.8%)	7.7%* (4.2%-13.9%)	6.5%* (3.7%-11.3%)
Agreement that falling is a normal part of the aging process	Strongly agree	26.3% (21.5%-31.7%)	31.0% (23.4%-39.9%)	21.3% (16.2%-27.5%)
	Somewhat agree	39.4% (34.0%-45.1%)	35.3% (27.4%-44.2%)	43.7% (36.7%-51.0%)
	Disagree	34.3% (29.0%-40.0%)	33.6% (25.7%-42.6%)	35.0% (28.3%-42.3%)

* High variability results, interpret with caution.

Table 3. Falls awareness among adults 55 years and older (n=363), by household income, Oxford County, 2016

Indicator	Responses	Per cent (95% CI)					
		Overall	<$40K	$40K to < $70K	$70K to < $100K	$100K +	Don't know/ Refused
Aware of chance of falling for those 65 years and older	Yes	11.0% (8.1%-14.8%)	**	**	**	**	13.1%* (8.2%-20.3%)
	No	75.7% (70.7%-80.1%)	77.0% (65.6%-85.5%)	85.1%‡ (74.7%-91.7%)	71.4% (54.0%-84.2%)	88.2%† (74.0%-95.1%)	65.8%‡† (56.6%-73.9%)
	Don't know/Refused	13.3% (9.9%-17.6%)	14.1%* (7.5%-24.8%)	**	**	**	21.1%* (14.4%-29.9%)
Aware that physical activity reduces chance of falling later in life	Strongly agree	59.3% (53.5%-64.7%)	55.5% (42.9%-67.4%)	53.2% (40.4%-65.6%)	60.1% (42.5%-75.5%)	74.2% (58.3%-85.6%)	57.6% (48.3%-66.4%)
	Somewhat agree	33.6% (28.4%-39.2%)	39.2% (27.7%-51.9%)	39.0%* (27.2%-52.2%)	39.9%* (24.5%-57.5%)	20.0%* (10.4%-35.1%)	31.2% (23.5%-40.2%)
	Disagree	7.1%* (4.7%-10.8%)	**	**	**	**	11.2%* (6.4%-18.8%)
Agreement that falling is a normal part of the aging process	Strongly agree	26.3% (21.5%-31.7%)	28.9%* (18.5%-42.0%)	20.7%* (12.4%-32.4%)	**	35.0%* (21.4%-51.5%)	26.4% (18.8%-35.7%)
	Somewhat agree	39.4% (34.0%-45.1%)	37.2%* (26.0%-50.0%)	48.2% (35.7%-60.8%)	36.4%* (22.0%-53.8%)	22.0%* (11.9%-37.2%)	45.0% (35.9%-54.5%)
	Disagree	34.3% (29.0%-40.0%)	33.9%* (22.9%-47.0%)	31.2%* (20.9%-43.7%)	43.1%* (27.2%-60.5%)	43.0%* (28.1%-59.3%)	28.6% (20.8%-38.0%)

* High variability results, interpret with caution.

** Extremely high variability results, data suppressed.

‡, † Statistically significant difference between groups based on a 95% confidence interval.

Table 4. Falls awareness among adults 55 years and older (n=363), by education level, Oxford County, 2016

Indicator	Responses	Per cent of residents (95% CI)			
		Overall	< High school	High school or some post-secondary	Post-secondary graduate
Aware of chance of falling for those 65 years and older	Yes	11.2% (8.2%-15.1%)	**	10.4%* (6.2%-16.8%)	12.5%* (7.8%-19.5%)
	No	76.7% (71.7%-81.1%)	77.6% (66.8%-85.6%)	76.5% (68.1%-83.3%)	76.5% (68.1%-83.3%)
	Don't know/Refused	12.1% (8.8%-16.2%)	12.1%* (6.5%-21.2%)	13.1%* (8.0%-20.7%)	11.0%* (6.4%-18.2%)
Aware that physical activity reduces chance of falling later in life	Strongly agree	58.8% (53.1%-64.4%)	39.2%‡ (28.1%-51.5%)	56.0% (46.6%-65.1%)	72.0%‡ (63.5%-79.3%)
	Somewhat agree	34.0% (28.8%-39.7%)	44.4%‡ (32.7%-56.7%)	40.9%† (32.0%-50.4%)	22.1%*‡† (15.7%-30.1%)
	Disagree	7.1%* (4.6%-10.8%)	16.5%* (8.9%-28.4%)	**	**
Agreement that falling is a normal part of the aging process	Strongly agree	26.6% (21.7%-32.0%)	34.0%* (23.1%-46.9%)	27.4% (19.9%-36.5%)	21.8%* (15.2%-30.4%)
	Somewhat agree	39.8% (34.3%-45.6%)	44.7% (32.8%-57.2%)	40.3% (31.6%-49.7%)	36.7% (28.5%-45.8%)
	Disagree	34.3% (29.0%-40.0%)	21.3%* (12.9%-33.1%)	32.3% (24.0%-41.8%)	41.4% (32.7%-50.7%)

* High variability results, interpret with caution.

** Extremely high variability results, data suppressed.

‡, † Statistically significant difference between groups based on a 95% confidence interval.

Table 5. Falls awareness among adults 55 years and older (n=363), by employment status, Oxford County, 2016

Indicator	Responses	Per cent of residents (95% CI)		
		Overall	Employed or self-employed	Taking care of family, student, retired or unable to work
Aware of chance of falling for those 65 years and older	Yes	11.1% (8.2%-14.9%)	8.9%* (4.7%-16.2%)	10.8%* (7.5%-15.4%)
	No	75.5% (70.4%-79.9%)	80.6% (70.9%-87.6%)	74.0% (67.8%-79.3%)
	Don't know/Refused	13.4% (10.0%-17.8%)	10.6%* (5.4%-19.5%)	15.2% (11.0%-20.6%)
Aware that physical activity reduces chance of falling later in life	Strongly agree	58.8% (53.1%-64.3%)	54.5% (43.8%-64.8%)	62.1% (55.4%-68.3%)
	Somewhat agree	34.0% (28.8%-39.6%)	36.7% (27.1%-47.5%)	31.3% (25.5%-37.8%)
	Disagree	7.2%* (4.7%-10.9%)	**	6.6%* (4.0%-10.5%)
Agreement that falling is a normal part of the aging process	Strongly agree	26.6% (21.7%-32.0%)	29.4%* (20.6%-40.1%)	24.7% (19.4%-31.0%)
	Somewhat agree	39.7% (34.2%-45.4%)	35.1% (25.8%-45.6%)	41.8% (35.2%-48.6%)
	Disagree	33.7% (28.4%-39.5%)	35.5% (26.1%-46.1%)	33.5% (27.2%-40.4%)

* High variability results, interpret with caution.

** Extremely high variability results, data suppressed.

Table 6. Falls awareness among adults 55 years and older (n=363), by rural or urban residence, Oxford County, 2016

Indicator	Responses	Per cent (95% CI)		
		Overall	Rural	Urban
Aware of chance of falling for those 65 years and older	Yes	11.0% (8.1%-14.8%)	**	12.5%* (8.9%-17.4%)
	No	75.7% (70.7%-80.1%)	79.7% (69.5%-87.1%)	74.2% (68.2%-79.4%)
	Don't know/Refused	13.3% (9.9%-17.6%)	13.4%* (7.3%-23.4%)	13.2%* (9.4%-18.2%)
Aware that physical activity reduces chance of falling later in life	Strongly agree	59.3% (53.5%-64.7%)	61.7% (50.3%-71.9%)	58.4% (51.8%-64.7%)
	Somewhat agree	33.6% (28.4%-39.2%)	32.0%* (22.5%-43.2%)	34.2% (28.2%-40.7%)
	Disagree	7.1%* (4.7%-10.8%)	**	7.4% (4.6%-11.8%)
Agreement that falling is a normal part of the aging process	Strongly agree	26.3% (21.5%-31.7%)	29.5%* (20.1%-40.9%)	25.1% (19.7%-31.4%)
	Somewhat agree	39.4% (34.0%-45.1%)	39.3% (28.8%-50.9%)	39.5% (33.2%-46.1%)
	Disagree	34.3% (29.0%-40.0%)	31.3%* (21.7%-42.7%)	35.4% (29.2%-42.2%)

* High variability results, interpret with caution.

** Extremely high variability results, data suppressed.

Table 7. Falls awareness among adults 55 years and older (n=363), by marital status, Oxford County, 2016

Indicator	Responses	Per cent of residents (95% CI)			
		Overall	Married or living with a partner	Never married	Widowed, divorced or separated
Aware of chance of falling for those 65 years and older	Yes	11.1% (8.2%-14.9%)	11.2%* (7.6%-16.2%)	**	13.4%* (8.1%-21.3%)
	No	76.3% (71.2%-80.6%)	78.8% (72.4%-84.0%)	83.4% (63.8%-93.4%)	69.0% (59.1%-77.4%)
	Don't know/Refused	12.6% (9.3%-16.9%)	10.1%* (6.4%-15.4%)	**	17.6%* (11.2%-26.6%)
Aware that physical activity reduces chance of falling later in life	Strongly agree	59.0% (53.3%-64.5%)	60.0% (52.8%-66.8%)	44.6%* (23.9%-67.2%)	60.0% (49.6%-69.5%)
	Somewhat agree	33.8% (28.6%-39.4%)	33.8% (27.4%-40.9%)	45.5%* (24.2%-68.6%)	31.0% (22.5%-41.1%)
	Disagree	7.2%* (4.7%-10.9%)	6.2%* (3.5%-10.6%)	**	**
Agreement that falling is a normal part of the aging process	Strongly agree	26.6% (21.7%-32.0%)	26.4% (20.4%-33.4%)	41.1%* (20.7%-65.1%)	23.7%* (16.1%-33.3%)
	Somewhat agree	39.8% (34.3%-45.6%)	38.3% (31.5%-45.5%)	**	46.3% (36.2%-56.7%)
	Disagree	33.6% (28.3%-39.4%)	35.3% (28.7%-42.6%)	**	30.0% (21.2%-40.6%)

* High variability results, interpret with caution.

** Extremely high variability results, data suppressed.

Data Notes

Definitions

Rural versus Urban Comparisons: Results are presented for Oxford County as a whole, and where possible, reported by whether the resident lives in a 'rural' or 'urban' area within the County. Although there are a mixture of rural and (sub)urban areas even within the municipalities, for the purposes of this report, they were subdivided as follows:

1. **Rural**: Zorra, East Zorra-Tavistock, Blandford-Blenheim, Norwich and South-West Oxford.
2. **Urban**: Woodstock, Ingersoll and Tillsonburg.

Methods

The 2016 Oxford Health Matters Survey (OHMS) was conducted for Oxford County Public Health by the Institute for Social Research (ISR) at York University. The purpose of the survey was to collect data to help shape public health programs in new and emerging areas based on the needs and concerns of the community. The survey interviewed by telephone a total of 550 randomly selected households from September to December 2016 with Oxford County residents aged 18 years or older. This resulted in an overall response rate of 44%, which is comparable to other recent Canadian health surveys. If the household included a person aged 18-30 years old, they were selected to answer the survey to increase the number of young people in the sample, as they are typically harder to reach with this type of survey. Otherwise, the person with the first birthday in the household was asked to complete the survey. The number of responses for various questions may not total 550 due to survey skip patterns and differing amounts of non-response to each question. Responses to questions relevant to individuals are weighted by age and sex to adjust for fewer males and younger individuals completing the survey. This weighting allows the sample to more closely represent the population of Oxford County.

Confidence Intervals

The per cents in brackets that follow each per cent estimate in the tables are the confidence intervals (CIs). Each estimate is based on the survey sample, and a CI is a range of values that describes the uncertainty surrounding an estimate.[10] The 95% CI shows a range of values that have a 95% chance of including the true estimate in the population if the survey was repeated. The larger a 95% CI, the more caution should be used when using the estimate. In graphs, the 95% CI is shown by an error bar. Error bars and CIs that don't overlap show statistically significant differences between groups (e.g., when comparing males and females). Statistically significant results indicate the finding is unlikely to be due to chance alone.

Variability

Throughout the report, some numbers may be suppressed because they are unstable due to high variability, as measured by the coefficient of variation (CV). The CV indicates how precise an estimate is. Higher CVs indicate more variability, which often occurs when there is a small sample size. When the CV is between 16.6 and 33.3, the estimate should be interpeted with caution because of high variability. In tables, this is shown with an asterisk (*). Estimates with a CV of 33.3 or more are not reportable and the estimates are replaced with double asterisks (**). Estimates may also not be reportable if they are based on an unweighted denominator of less than 30 or a numerator of less than 5.

Missing Responses

"Don't know" and "Refused" responses are usually removed from the analysis, unless they account for over 5% of the responses. Then they are included as a separate category. Responses are self-reported and may be subject to recall bias (trouble remembering) and social desirability bias (answering in the "expected" or socially acceptable way).

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