Purpose

The purpose of this data summary sheet is to provide an overview of the prevalence of social isolation among different population groups across Vancouver Coastal Health (VCH) and Fraser Health (FH). The intent is to provide a better understanding of the demographic and health factors connected with social isolation within each health authority (HA) and at the health service delivery area (HSDA) levels.
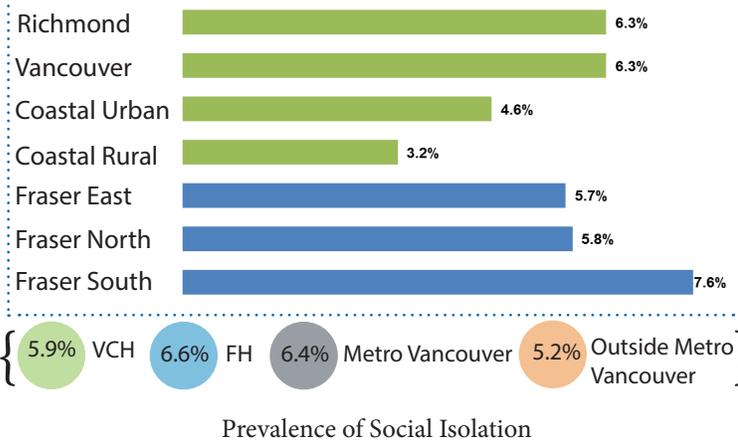
Overview

A supportive social network is vital to human health and well-being. A lack of meaningful social relationships, infrequent social contacts, and perceived loneliness are indicative of social isolation. In turn, this experience has a negative influence on mental and physical well being.[1,2,3,4] Specifically, social isolation is a known risk factor for the development of cardiovascular disease[5], infectious illness,[6] cognitive deterioration,[7] and overall greater risk of death.[8]

A previous My Health My Community (MHMC) analysis estimated that 259,000 individuals in Metro Vancouver report social isolation as a contributing cause to their feelings of stress.[9] For the purpose of this data summary sheet, we aim to understand another, and perhaps more severe indication of social isolation in our region, being people who report having **no individuals to confide in, tell their problems to, or call when they really need help**.
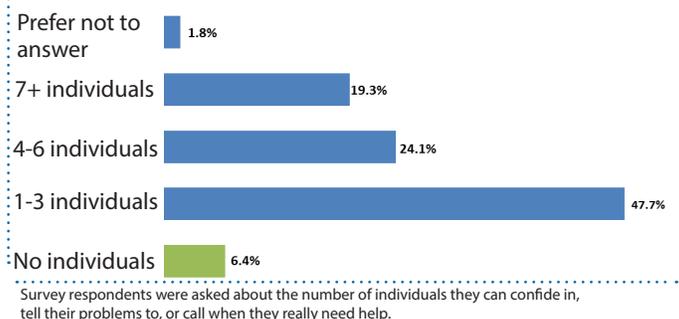
Overall Social Isolation Prevalence

- Overall, 6.4% of respondents aged 18+ years reported being socially isolated.

- The prevalence of social isolation is significantly higher among male respondents compared to female respondents (8.0% vs. 4.6%).

- The prevalence of social isolation is highest among middle aged respondents aged 40-64 (7.1%), and is second highest among respondents aged 65+ (6.6%).

- In VCH, the prevalence of social isolation is 5.9%. Within the VCH region, Vancouver and Richmond have the highest prevalence of social isolation (6.3%), followed by, Coastal Urban areas (4.6%), and Coastal Rural areas (3.2%).

- In FH, the prevalence of social isolation in 6.6%. Within the FH region, Fraser South has the highest prevalence of social isolation (7.6%), followed by Fraser North and Fraser East (5.8% and 5.7% respectively).

- Social isolation is more prevalent in urban areas (i.e. Metro Vancouver), compared to rural areas (6.4% vs. 5.2%).

- 47.7% of survey respondents reported having 1 to 3 individuals to confide in.

- 24.1% of survey respondents reported having 4 to 6 individuals to confide in.

- 19.3% of survey respondents reported having 7 or more individuals to confide in.

- The proportion of respondents who reported social isolation is significantly higher than the overall respective health authority value (see methods) among the following:

  - Education level of high school or less (VCH only)
  - Household income less than $40,000
  - Unemployed
  - Respondents who identify as LGBT (FH only)
  - Not born in Canada (VCH only)
  - Smoker (daily/occasionally) (VCH only)
  - Community belonging (very weak/somewhat weak)
  - General health is fair/poor
  - Mental health is fair/poor
  - Have multiple chronic conditions
  - Stress (extremely/quite stressed)
  - Report mood or anxiety disorder (VCH only)

Social isolation (AGED 18+ YEARS)

Region	Prevalence
Richmond	6.3%
Vancouver	6.3%
Coastal Urban	4.6%
Coastal Rural	3.2%
Fraser East	5.7%
Fraser North	5.8%
Fraser South	7.6%

5.9% VCH   6.6% FH   6.4% Metro Vancouver   5.2% Outside Metro Vancouver

Prevalence of Social Isolation

Number of individuals to confide in (AGED 18+)

Category	Percent
Prefer not to answer	1.8%
7+ individuals	19.3%
4-6 individuals	24.1%
1-3 individuals	47.7%
No individuals	6.4%

Survey respondents were asked about the number of individuals they can confide in, tell their problems to, or call when they really need help.

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Vancouver CoastalHealth
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Highlights: Vancouver Coastal Health

➲ SOCIO-DEMOGRAPHIC

- Males have a significantly higher prevalence of social isolation compared to females (7.2% vs. 4.7%).

- Seniors aged 65+ have the highest prevalence or reported social isolation (translates to 15,529 people in that age group) , followed by adults aged 40-64 years (7.7% vs. 6.3% respectively).

- VCH respondents with a household income under $40,000 have a significantly higher prevalence of reported social isolation compared to respondents with an income of $100,000+ (9.6% vs. 2.5%).

- VCH respondents not born in Canada have a significantly higher prevalence of reported social isolation, compared to respondents born in Canada (7.9% vs. 4.5%).

➲ HEALTH-STATUS

- VCH respondents with perceived fair or poor general health have a significantly higher prevalence of social isolation, compared to those with perceived excellent or very good general health (13.1% vs. 3.4%).

- VCH respondents with perceived fair or poor mental health have a significantly higher prevalence of social isolation, compared to those with perceived excellent or very good mental health (14.0% vs. 3.2%).

- Those with reported mood or anxiety disorder have a significantly higher prevalence of social isolation, compared to respondents with no reported mood or anxiety disorder (7.9% vs. 5.3%).

- Those with reported multiple chronic conditions have a significantly higher prevalence of social isolation, compared to respondents who did not report having multiple chronic conditions (10.6% vs. 5.4%).

➲ LIFESTYLE, BUILT ENVIRONMENT & COMMUNITY RESILIENCY

- VCH respondents who report being extremely or quite stressed have a significantly higher prevalence of social isolation, compared to respondents who are not very stressed, a bit stressed or somewhat stressed (8.6% vs. 5.1%).

- VCH respondents who report having a very weak or somewhat weak sense of community belonging have a significantly higher prevalence of social isolation, compared to respondents who report having a strong or somewhat strong sense of community belonging (8.6% vs. 2.9%).

Highlights: Fraser Health

➲ SOCIO-DEMOGRAPHIC

- Males have a significantly higher prevalence of social isolation compared to females (8.6% vs. 4.6%).

- Adults aged 40-64 years have the highest prevalence or reported social isolation (7.7%), which translates to 47,353 adults in that age group.

- FH respondents with a household income under $40,000 have a significantly higher prevalence of reported social isolation compared to respondents with an income of $100,000+ (12.1% vs. 3.5%).

- FH respondents not born in Canada have a significantly higher prevalence of reported social isolation, compared to respondents born in Canada (7.4% vs. 6.1%).

- LGBT respondents have a significantly higher prevalence of social isolation compared to their heterosexual counterparts (13.1% vs. 5.6%).

➲ HEALTH-STATUS

- FH respondents with perceived fair or poor general health have a significantly higher prevalence of social isolation, compared to those with perceived excellent or very good general health (13.4% vs. 4.5%).

- FH respondents with perceived fair or poor mental health have a significantly higher prevalence of social isolation, compared to those with perceived excellent or very good mental health (17.5% vs. 3.9%).

- Those with reported mood or anxiety disorder have a significantly higher prevalence of social isolation, compared to respondents with no reported mood or anxiety disorder (10.0% vs. 5.8%).

- Those with reported multiple chronic conditions have a significantly higher prevalence of social isolation, compared to respondents who did not report having multiple chronic conditions (10.7% vs. 6.1%).

➲ LIFESTYLE, BUILT ENVIRONMENT & COMMUNITY RESILIENCY

- FH respondents who report being extremely or quite stressed have a significantly higher prevalence of social isolation, compared to respondents who are not very stressed, a bit stressed or somewhat stressed (12.9% vs. 5.1%).

- FH respondents who report having a very weak or somewhat weak sense of community belonging have a significantly higher prevalence of social isolation, compared to respondents who report having a strong or somewhat strong sense of community belonging (10.2% vs. 2.5%).

Data Tables: Vancouver Coastal Health and Fraser Health

Table 1. Proportion of survey respondents aged 18+ years by indicator who report social isolation.

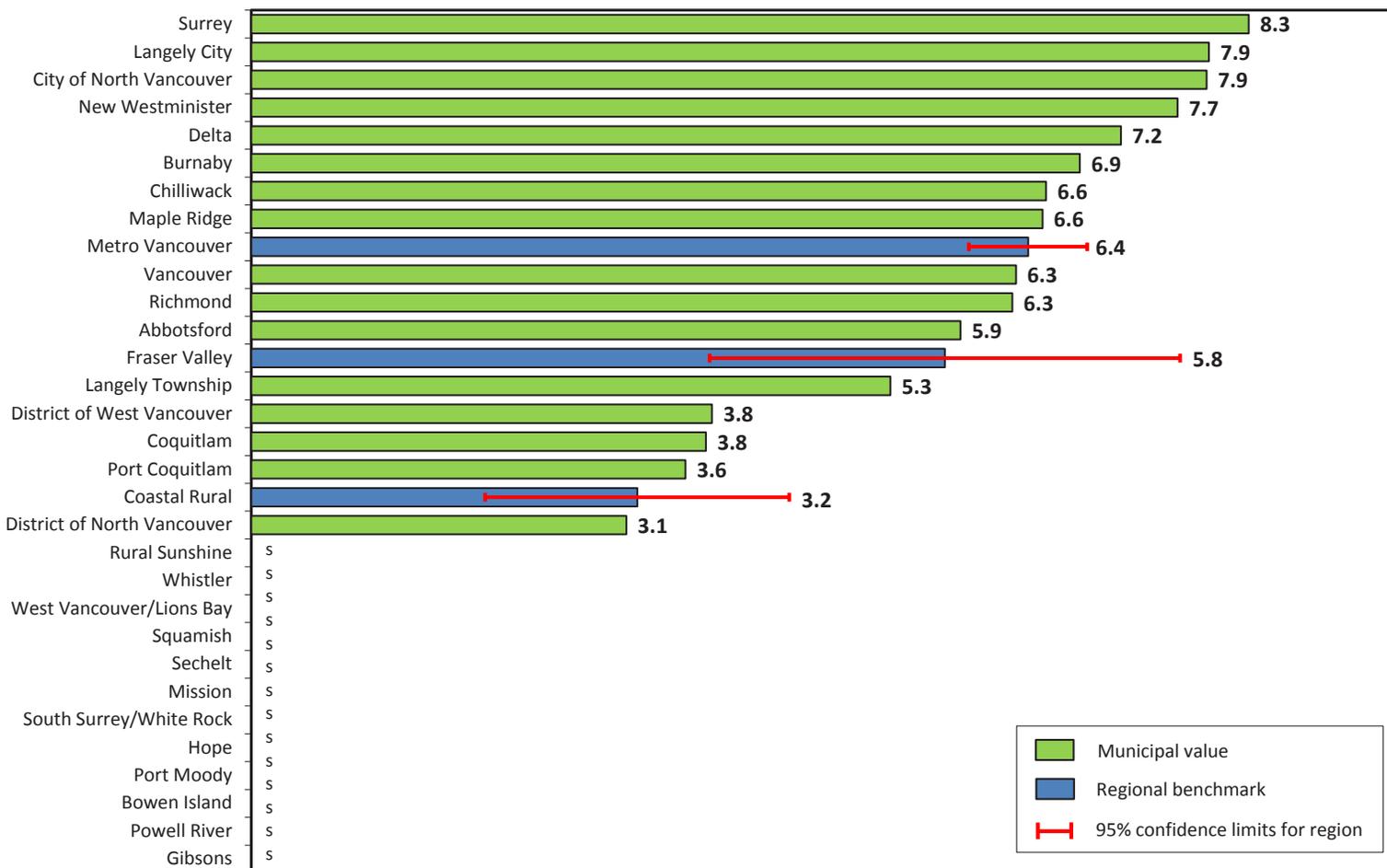| Domain	Indicator	VCH (n=712)			FH (n=646)			Metro Vancouver (n=1,202)		
		%	95% CI		%	95% CI		%	95% CI	
	Social Isolation Rate^	5.9	5.4	6.4	6.6	5.9	7.3	6.4	6.0	6.9
Socio-Economic	Female	4.7	4.1	5.2	4.6	4.0	5.3	4.8	4.3	5.3
	Male	7.2	6.4	8.1	8.6	7.3	9.9	8.2	7.3	9.0
	Young adults aged 18-24 years	4.2*	2.7	5.7	5.8	4.0	7.7	5.3	4.0	6.7
	Adults aged 18-39 years	4.5	3.8	5.3	5.6	4.6	6.6	5.3	4.6	6.0
	Adults aged 40-64 years	6.3	5.6	7.1	7.7	6.5	8.8	7.2	6.4	8.0
	Seniors age 65+ years	7.7	6.3	9.2	5.7	4.1	7.5	7.1	5.8	8.5
	Education level high school or less	8.8	7.6	10.1	8.8	7.3	10.3	9.2	8.1	10.3
	Education level Bachelor's degree or higher	3.6	3.1	4.0	4.5	3.7	5.2	4.0	3.6	4.5
	Household income under $40,000	9.6	8.3	10.8	12.1	9.8	14.5	11.2	9.9	12.6
	Household income $100,000+	2.5	1.8	3.1	3.5	2.6	4.4	2.9	2.3	3.5
	Employed	4.1	3.6	4.6	5.3	4.6	6.0	4.8	4.3	5.3
	Unemployed	13.9	10.7	17.0	15.1*	9.6	20.5	15.6	11.9	19.3
	Born in Canada	4.5	4.0	5.1	6.1	5.2	7.0	5.5	4.9	6.1
	Not Born in Canada	7.9	7.0	8.9	7.4	6.2	8.6	7.9	7.1	8.7
	Time in Canada 0-5 years	7.8	5.5	10.2	6.6*	4.0	9.2	7.4	5.6	9.2
	Time in Canada 6-15 years	7.9	5.6	10.2	9.1*	6.1	12.1	8.9	6.8	11.0
	Time in Canada 16+ years	7.4	6.2	8.7	6.9	5.3	8.5	7.4	6.3	8.5
	Indigenous/Aboriginal	9.9*	6.6	13.2	8.4*	5.1	11.8	9.5	6.8	12.1
	Caucasian	3.7	3.2	4.2	5.8	4.9	6.7	5.0	4.4	5.6
	Chinese	9.1	7.7	10.4	5.7*	3.8	7.7	8.0	6.8	9.1
	South Asian	7.0*	4.4	9.6	8.9	6.4	11.4	8.9	6.6	11.1
	LGBT	4.7*	3.0	6.5	13.1*	6.4	19.7	8.0*	5.0	11.1
Health Status	General health (excellent/very good)	3.4	2.9	4.0	4.5	3.7	5.2	4.1	3.5	4.6
	General health (fair/poor)	13.1	11.2	15.0	13.4	10.5	16.3	13.4	11.6	15.2
	Mental health (excellent/very good)	3.2	2.7	3.7	3.9	3.3	4.6	3.8	3.3	4.3
	Mental health (fair/poor)	14.0	12.0	16.0	17.5	14.2	20.8	15.7	13.7	17.6
	Obesity (BMI 30+)	7.3	5.8	8.7	8.0	6.2	9.8	7.7	6.5	8.9
	Diabetes	11.7	8.7	14.6	13.4*	8.8	18.0	12.9	10.0	15.8
	High blood pressure	7.5	6.1	9.0	8.0	6.4	9.7	8.4	7.1	9.7
	Chronic breathing condition	6.8	4.7	8.8	7.9*	5.1	10.6	7.7	5.7	9.8
	Arthritis	8.0	6.2	9.7	8.5	6.4	10.6	8.7	7.0	10.3
	Mood or anxiety disorder	7.9	6.5	9.4	10.0	7.3	12.6	9.0	7.4	10.5
	Multiple chronic conditions2	10.6	7.8	13.4	10.7	7.8	13.6	11.9	9.4	14.3
Lifestyle	Smoker (daily/occasionally)	10.2	8.0	12.4	10.1	7.2	13.0	10.5	8.4	12.6
	Non-smoker	5.3	4.8	5.8	6.1	5.3	6.8	5.9	5.4	6.4
	Physical activity (150+ minutes/week)	4.1	3.4	4.8	4.8	3.8	5.8	4.7	4.0	5.4
	Frequent binge drinking	4.5	3.5	5.4	5.9	4.2	7.6	5.4	4.3	6.5
	5+ servings of fruits and vegetables (/day)	3.8	3.0	4.6	3.1	2.3	3.9	3.4	2.8	4.0
	0-4 servings of fruits and vegetables (/day)	6.4	5.7	7.0	7.1	6.3	8.0	7.0	6.4	7.6
	Stress (extremely/quite stressed)	8.6	7.2	10.0	12.9	10.5	15.2	10.7	9.3	12.1
	Screen time (2+ hours/day)	6.3	5.5	7.0	7.3	6.1	8.4	6.8	6.1	7.5
Built environment	Second hand smoke exposure (public places)	7.4	6.3	8.5	8.2	6.2	10.2	7.7	6.6	8.8
Community resiliency	Community belonging (strong/somewhat strong)	2.9	2.4	3.4	2.5	2.0	3.1	2.8	2.4	3.2
	Community belonging (very weak/ somewhat weak)	8.6	7.7	9.6	10.2	8.9	11.6	9.4	8.6	10.3

^Social isolation is defined as survey respondents with no one (i.e. zero individuals) they have in their network that they could confide in, tell their problems to, or call when they really need help.

s = Estimates with coefficients of variation (CV) greater than 33.3% were considered unreliable due to small sample size and were suppressed. CI = Confidence interval.

*Estimate is associated with sampling variability (CV) between 16.6-33.3% to be interpreted with caution.

For indicator definitions, please refer to Technical Notes at: www.myhealthmycommunity.org/Results/TechnicalNotes

Prevalence of Social Isolation by Municipality

Municipality	Value
Surrey	8.3
Langely City	7.9
City of North Vancouver	7.9
New Westminister	7.7
Delta	7.2
Burnaby	6.9
Chilliwack	6.6
Maple Ridge	6.6
Metro Vancouver	6.4
Vancouver	6.3
Richmond	6.3
Abbotsford	5.9
Fraser Valley	5.8
Langely Township	5.3
District of West Vancouver	3.8
Coquitlam	3.8
Port Coquitlam	3.6
Coastal Rural	3.2
District of North Vancouver	3.1
Rural Sunshine	s
Whistler	s
West Vancouver/Lions Bay	s
Squamish	s
Sechelt	s
Mission	s
South Surrey/White Rock	s
Hope	s
Port Moody	s
Bowen Island	s
Powell River	s
Gibsons	s

Legend:
- Municipal value (green)
- Regional benchmark (blue)
- 95% confidence limits for region (red)

Social isolation is defined as survey respondents with no one (i.e. zero individuals) they have in their network that they could confide in, tell their problems to, or call when they really need help. s = A cell size of 5 or less, or estimates with coefficients of variation (CV) greater than 33.3% were considered unreliable due to small sample size and were suppressed.

Table 2. Projected population aged 18+ years by indicator who report social isolation

Domain	Indicator	VCH #	FH #	Metro Vancouver #
	Social Isolation	59,186	95,766	141,720
Demographic	Female	24,245	33,826	54,260
	Male	35,086	61,564	88,884
	Young adults 18-24 years	4,687	10,331	13,865
	Adults aged 18-39 years	17,670	31,047	45,566
	Adults aged 40-64 years	25,755	47,353	66,593
	Seniors age 65+ years	15,529	16,052	30,511

Population source: BC Statistics Agency, Population Estimates, 2017.

Methods

Data summarized in this report are from the MHMC survey that was conducted between June 2013 and July 2014. People who responded to the survey were 18+ years of age and lived within the VCH or FH regions. Detailed information on the survey tool and questions, recruitment of participants and calculation of indicators can be found in the MHMC Technical Report at: **www.myhealthmycommunity.org/results/technicalnotes**.

The data were further stratified into a number of socio-demographic, health status, lifestyle behaviours and built environment population segments. The prevalence of social isolation and confidence intervals (CI) were calculated for each population segment by Health Authority (HA) and summarized in Table 1.

Significant differences exist where confidence intervals are non-overlapping. Projected population numbers for respondents reporting social isolation in Table 2 were calculated using the social isolation prevalence and the 2017 population estimates for the specified sex and age population segments available from the BC Statistics Agency (BC Stats). In contrast to the Community Health Profiles, Neighbourhood Profiles and Atlas where the data are reported by either municipality or neighbourhood, this data summary sheet reports the prevalence of social isolation for the larger geographic area of a HA.

Additional Resources

- Province of British Columbia, Social Connections: https://www2.gov.bc.ca/gov/content/family-social-supports/seniors/health-safety/active-aging/social-connections

- Reach Isolated Seniors Everywhere, Vancouver, BC - Taking Action to Reduce Social Isolation Among Seniors: http://rise-cisa.ca/2017/04/taking-action-reduce-social-isolation-among-seniors-Vancouver/

- SENIORS FIRST BC, Provincial Listing of Social Connections to Avoid Social Isolation: http://seniorsfirstbc.ca/links/provincial-listing-social-connections-avoid-social-isolation/

- PlanH, Social Connectedness: http://planh.ca/sites/default/files/hfbc-social-connectedness-actionguide-v03_07.30.15_weblinks.pdf

References

1. Uchino, B. N. (2006). Social support and health: A review of physiological processes potentially underlying links to disease outcomes. Journal of Behavioral Medicine, 29, 377–387. doi:10.1007/s10865-006-9056-5.

2. House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. Science, 241, 540–545.

3. Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality risk: A meta-analytic review. PLoS Medicine, 7(7), e1000316. doi:10.1371/journal. pmed.1000316.

4. Shor, E., Roelfs, D. J., & Yogev, T. (2013). The strength of family ties: A meta-analysis and meta-regression of self-reported social support and mortality. Social Networks, 35, 626–638. doi:10.1016/j.socnet.2013.08.004.

5. Barth, J., Schneider, S., Von Känel, R. (2010) Lack of social support in the etiology and the prognosis of coronary heart disease: A systematic review and meta-analysis. Psychosom Med 72(3):229–238.

6. Cohen, S., Doyle, W.J., Skoner, D.P., Rabin, B.S., Gwaltney, JM, Jr. (1997) Social ties and susceptibility to the common cold. JAMA 277(24):1940–1944.

7. Bassuk, S.S., Glass, T.A., Berkman, L.F. (1999) Social disengagement and incident cognitive decline in community-dwelling elderly persons. Ann Intern Med 131(3):165–173.

8. Holt-Lunstad, J., Smith, T., Baker, M., Harris, T. & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: A meta-analytic review. Perspectives on Pscyhological Science, 10(2), 227-237. doi: 10.1177/1745691614568352.

9. Global News, Lonely Lower Mainland (2014). Available at: https://globalnews.ca/video/1151882/lonely-lower-mainland