

Estimates of the Number of Frail Japanese Canadian Seniors in 2021
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Frailty is a complex concept and is not easy to be quantitatively measured. As people age, they experience physiological and mental conditions changes and become more vulnerable to illness and injuries. Their recoveries to normal conditions are also affected by frailty.

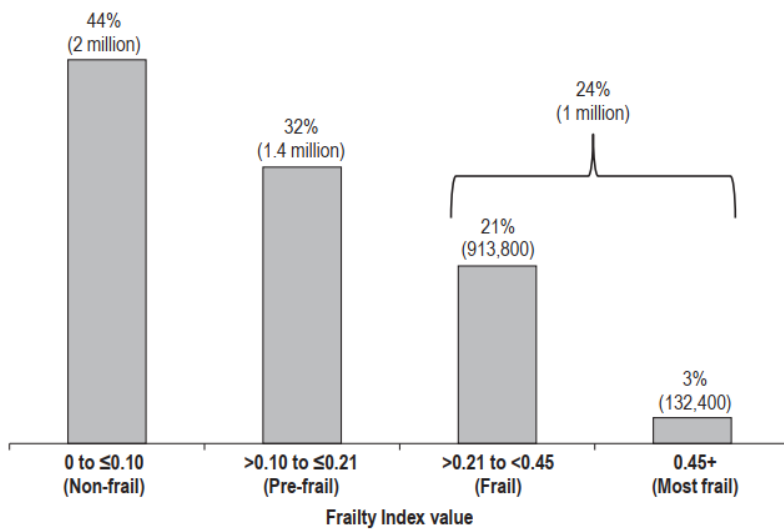
Melanie Hoover, Michelle Rotermann, Claudia Sanmartin and Julie Bernier wrote a paper, "Validation of an Index to Estimate the Prevalence of Frailty Among Community-Dwelling Seniors," (Statistics Canada, September 2013) and estimated the percentages of Canadians in the four degrees of frailty. They used 30 categories of categories of health status such as chronic conditions, physical/cognitive limitations, and general health and assigned them the value 0 (least frail) to 1 (most frail). They combined those indices and defined the four degrees of frailty:

- 0.0 to 0.1 non-frail
- 0.1 to 0.21 pre-frail
- 0.30 to 0.35 more frail (women only), and
- 0.45 and over most frail

Then, they checked Canadians with those frailty indices against their hospital-related experiences to see if the cut-off points of frailty indices were effective. They found that the cut-off points between 0.21 and 0.45 were not effective to define the degree of frailty in terms of hospitalization except for women with the frailty indices between 0.30 to 0.35.

They estimated the percentage distribution and estimated number of Canadians by frailty category in 2009/2010 as shown in the chart below.

Figure 1
Percentage distribution and estimated numbers, by frailty category, household population aged 65 or older, Canada, 2009/2010



Source: 2009/2010 Canadian Community Health Survey.

They also estimated the percentages of frail and most frail people by age group as follows:

- (1) 65 to 74 years old 16.0%
- (2) 75 to 84 years old 28.6% and
- (3) 85 and over 52.1%.

These age groups do not match those used for the estimates of Japanese Canadians in 2021, that is, 72 to 79 years old, and 80 years old and over.

As rough estimates of the frailty percentages, we use the averages as follows:

72 to 79 years old = $(16.0 + 28.6)/2 = 22.3\%$

80 years and over = $(28.6 + 52.1)/2 = 40.4\%$

Applying these percentages to the number of Japanese Canadian seniors in 2021, we get the following table:

Estimates of the Number of Frail Japanese Canadian Seniors in 2021

	Born in Canada		Born in Japan		72 and over in 2016	
	72 to 79 years	80 years old and	72 to 79 years	80 years old and over	Born in Canada	Born in Japan
Canada	2,887	3,741	2,965	1,394	6,628	4,359
% of frail people	22.3	40.4	22.3	40.4	32.5	28.1
Estimates of frail people	644	1,511	661	563	2,155	1,224