Appendix 5. RESPECT web calculator user guide

This document provides an overview of a web-based calculator developed by the Project Big Life Team, called RESPECT. RESPECT — which is short for “Risk Evaluation for Support: Predictions for Elder life in the Community Tool” — was developed on data from 488,636 older people in Ontario, Canada, who used home care between 2007 and 2014. It identifies when a person may be nearing the end of life and provides information that helps to determine their care needs.

Step 1: User identification

The tool begins with the establishment of a user profile. These questions were designed to: (a) ascertain who is using RESPECT, whether the patient is completing the assessment on their own, or with the support of a caregiver, family member or clinician; and (b) that the user understands the intention of the calculator and the nature of the information that they will receive.
**Step 2: Establish patient’s baseline characteristic**

Once the user’s profile has been established, they are presented with a series of questions that attempts to establish the patient’s baseline mortality risk based on their age, biological sex, level of education, and morbidity.

Here are some questions about you

Please indicate your sex:
- Female
- Male

What is your age?

What was the highest level of education that you have completed?
- Did not complete high school
- Graduated high school
- Technical or trade school
- College or university
- Unknown/Do not want to disclose

Has a doctor and/or another health care professional told you that you have one or more of the following diseases or chronic health conditions? Check all that apply.
- Stroke
- Alzheimer’s Disease or dementia
- Congestive heart failure
- Coronary heart disease
- Hypertension
- Multiple sclerosis
- Parkinson’s disease
- Cancer (in past 5 years) but not including skin cancer
- COPD (Chronic Obstructive Pulmonary Disease), emphysema or asthma
At this point, the user will be presented with a short report, summarizing their baseline risk based on their response to the sociodemographic and disease questions.

The default display is a sliding scale capturing frailty based on the placement of the patient into one of the 61 risk groups generated from the RESPECT algorithm. Individuals in Bin 61 are classified as having a low level of frailty (with the dial positioned at the bottom of this scale), while individuals in Bin 1 are deemed as having a very high level of frailty.
In addition to this sliding scale of frailty, the user will also have the option of toggling between other outcome metrics that are generated from RESPECT, including:

(A) The estimated probability of death within the next 3 months, 1 year, and 5 years derived from Kaplan-Meier survival curves.

(B) The estimated survival time at the 25th, 50th, and 75th percentiles from Kaplan-Meier survival curves for individuals in the same risk bin.

(C) A pictogram illustrating the probability of death within 1 year of their baseline using a Cates plot.
Step 3: Provide more information to improve precision of the survival estimates

As the user provides more information, the precision of their estimates improves.

Note the change in the estimated survival once the user selects a response to the question, “Has your ability to carry out these tasks gotten worse over the past 3 months?”
**Step 4: Review and print summary of results**

Once the user has provided information to all the predictors included in RESPECT, they will be led to a results page, where their mortality risk, life expectancy and care needs are summarized.
The user is also presented with the option of printing out a summary of their results or save the report as a Portable Document Format (PDF) document, which they are encouraged to share with their care provider(s).