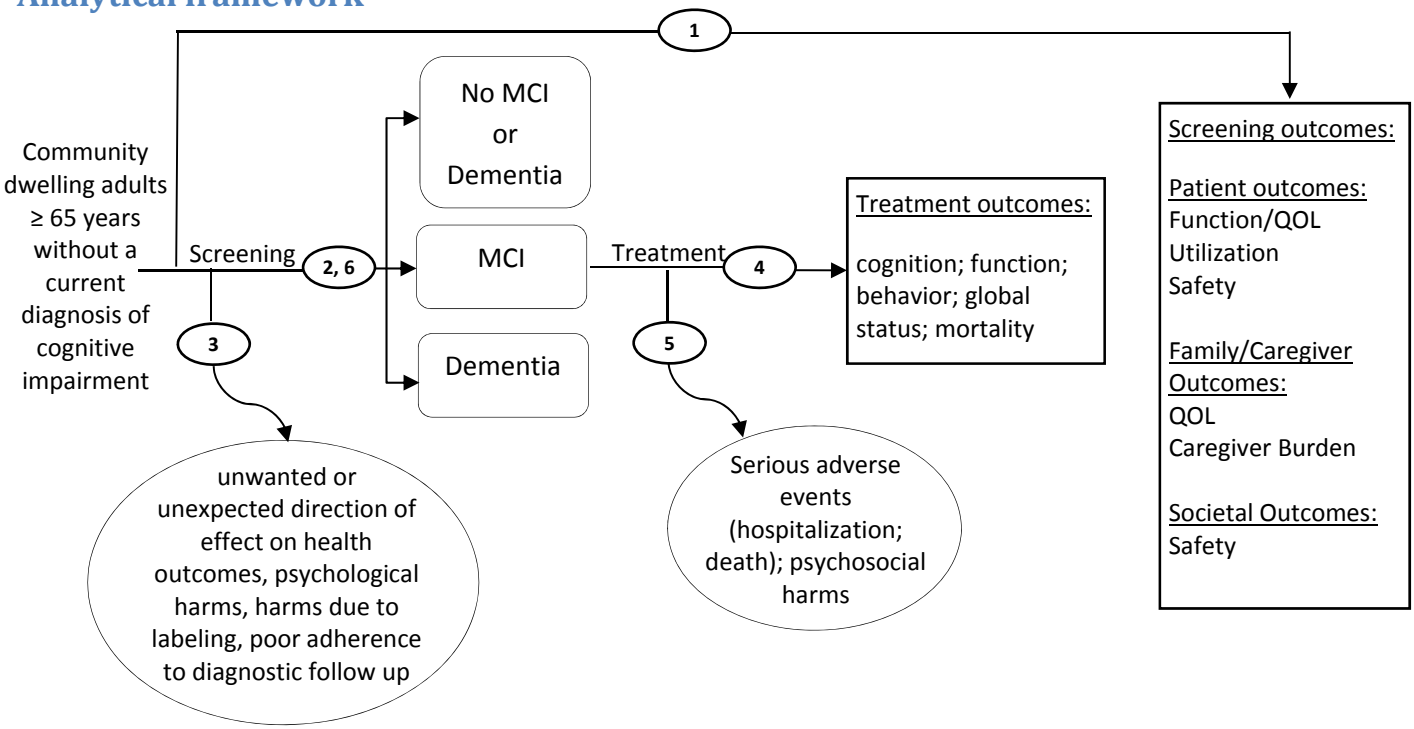
Appendix 2 (as supplied by the authors): Analytical framework, key and contextual questions

Analytical framework



Key questions*:

1. Does screening for cognitive impairment (dementia or MCI) in community-dwelling older adults in primary care–relevant settings improve decision-making, patient, family/caregiver, or societal outcomes?
2.
    a. What is the test performance of screening instruments to detect **dementia** in community-dwelling older adult primary care patients?
    b. What is the test performance of screening instruments to detect **MCI** in community-dwelling older adult primary care patients?
3. What are the harms of screening for cognitive impairment?
4. Do pharmacological or non-pharmacologic interventions for persons with Mild Cognitive Impairment (MCI), community dwelling adults (≥65 years of age), improve: 1) cognition, 2) function, 3) behaviour, 4) global status, or 5) mortality?
    a. How effective are the screening tools validated for Canadian populations (e.g., MoCA) in improving: 1) cognition, 2) function, 3) behaviour, 4) global status, or 5) mortality?
5. What are the adverse events (AE) including serious (hospitalization or death) and psycho-social harms such as depression, lack of independence, etc. of pharmacological or non-pharmacologic interventions for MCI?

6.[β] What are the diagnostic properties of screening tools validated in a Canadian population of adults older than age 65?

   a. What are the cut-offs for mild cognitive impairment in adults 65 years and over and how well they work (i.e. examine how well the screening tools differentiate between no cognitive impairment and mild cognitive impairment, and between mild and severe cognitive impairment).

Contextual questions[*†]:

1. What is the cost-effectiveness of screening for cognitive impairment in adults?
2. What are the patient or caregiver values and preferences for screening for cognitive impairment in adults?
3. What risk assessment tools can be used to assess the risk of cognitive impairment?
4. What is the evidence for a higher burden of disease, a differential treatment response, differential performance of screening for cognitive impairment or barriers to implementation of screening for cognitive impairment in subgroups of interest? Subgroups of interest include: Aboriginal population, rural or remote populations, or other ethnic populations.
5. What are people's willingness to be screened for MCI and the elements that factor into this decision process (I am willing because…; I am not willing because…)?
6. What are people's willingness to be diagnosed for MCI (i.e. interest in knowing the diagnosis if MCI was found (given available treatment options) and the elements that are factored into this decision process (I am willing because…; I am not willing because…)?

*Information can be found in Dunfield L, Shane A, Fitzpatrick-Lewis D, Pottie K, Birtwhistle R, Singh H, et al. Protocol: Screening for cognitive impairment in the elderly. 2014. As well in Fitzpatrick-Lewis D, Warren R, Ali MU, et al. Treatment for mild cognitive impairment: a systematic review and meta-analysis. *CMAJ Open* 2015;3:E419-27.

[†]Contextual questions 1 to 4 not completed due to a lack of evidence to support screening.

[β] Key question 6 treated as a contextual question since there was no evidence on screening and only a small benefit with the effectiveness of non-pharmacological treatments.

