Canadian Task Force
on Preventive Health Care

Screening for impaired vision in community-dwelling adults aged 65 years and older in primary care settings (2018)

Canadian Task Force on Preventive Health Care (CTFPHC)

Putting Prevention into Practice

Use of Slide Deck

- These slides are made available publicly following the guideline's release as an educational support to assist with the dissemination, uptake and implementation of the guidelines into primary care practice

- Some or all of the slides in this slide deck may be used in educational contexts

Canadian Task Force on Preventive Health Care (CTFPHC)

Task Force Members:

- Brenda J. Wilson
- Maria Bacchus
- James A Dickinson
- Scott Klarenbach
- Brett D. Thombs

Public Health Agency:

- Susan Courage *
- Nicki Sims-Jones *
- Alejandra Jaramillo *

Alberta Evidence Review and Synthesis Centre:

- Lisa Hartling*
- Jennifer Pillay*
- Tara MacGregor*
- Robin Featherstone*
- Ben Vandermeer*

Knowledge Translation Program, Li Ka Shing Knowledge Institute, St. Michael's Hospital

**non-voting member*

Overview of Webinar

- **Presentation**
  - Background on Screening for impaired vision in community-dwelling adults aged 65 years and older
  - Methods of the CTFPHC
  - Key Findings
  - Recommendations
  - Implementation Considerations
  - Conclusions
- **Questions and Answers**

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BACKGROUND

Background

- 13% of Canadians aged 75 years and older had a “seeing limitation”, 31% described as severe, compared with 0.5% of those aged 15 to 24 years, with 17% described as severe
- The proportion of adults with vision impairment is expected to double in Canada by 2032 as the population ages
- Impaired vision can have a negative impact on vision-related functioning and quality of life, which may be manifested by decreased participation in social, work or leisure activities as well as difficulty in family relationships, symptoms of depression, injuries from accidents including falls, or the loss of driving privilege
- Comprehensive eye examinations for adults 65 years of age and older are covered by most provincial governments across Canada

Guideline Scope

- This guideline presents evidence-based recommendations on the prevention of vision-related functional limitations for community-dwelling adults aged 65 years and older by screening them for impaired vision in primary care settings such as physicians' offices or clinics.
- Updates the previous 1995 "Canadian Task Force on the Periodic Health Exam" guideline on vision screening, which made a grade B recommendation in support of screening for visual impairment in elderly patients with diabetes of at least 5 years' duration

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METHODS

Methods of the CTFPHC

- **Independent panel of:**
  - Clinicians and methodologists
  - Expertise in prevention, primary care, literature synthesis, and critical appraisal
  - Application of evidence to practice and policy

Working Group

- 4 CTFPHC members
- Establish research questions and analytical framework

Evidence Review and Synthesis Centre (ERSC)

- Undertakes a systematic review of the literature based on the analytical framework
- Prepares a systematic review of the evidence with GRADE tables

CTFPHC Review Process

- Internal review process involving:
  - Guideline working group, CTFPHC, scientific officers, and ERSC staff
- External review is undertaken at key stages:
  - Protocol, systematic review, and guideline
- External review process involving key stakeholders
  - Generalist and disease-specific stakeholders
  - Federal and Provincial/Territorial stakeholders
  - Academic peer reviewers
- CMAJ undertakes an independent peer review process to review guidelines prior to publication

What 'Evidence' Does The CTFPHC Consider?

Direct Evidence

- **Screening Review (by Alberta ERSC)**
  - Benefits and harms of screening
  -

- **Patient focus groups**: patient preferences and values related to key outcomes
- **Stakeholder survey:** Feasibility, Acceptability, Cost, and Equity (FACE) tool

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Research Questions

- The systematic review for screening for impaired visual acuity
  - (2) key research questions on **benefits and harms** with (1) sub questions
  - (1) key question on **cost-effectiveness of screening for unrecognized impaired vision** not completed as there was no evidence for benefits
  - (1) key questions on **screening test accuracy** not completed as there was no evidence for benefits
- Based on approach to integrating existing systematic reviews and update since 2012
- For more detailed information, please access the systematic review www.canadiantaskforce.ca

Eligibility Criteria: Screening Review

Population: Community-dwelling older adults (ages >=65) with unrecognized vision problems

Language: English, French

	KQ1
Study Type	Health outcomes & implementation outcomes: RCTs only; Harms: staged to RCTs, then controlled experimental, then controlled observational.
Interventions	Vision screening tests or charts, alone or within multicomponent screening/assessment (may include home- or online-based tools)
Outcomes	(1) Mortality, (2) potential adverse consequences of vision loss (loss of independence, fractures), (3) vision related functioning or quality of life (validated scales or individual questions on vision functional limitations), (4) visual acuity (mean change)

How Does the CTFPHC GRADE Evidence?

The "**GRADE**" System:

- **G**rading of **R**ecommendations, **A**ssessment, **D**evelopment & **E**valuation

1. Quality of Evidence

- Confidence that the available evidence **correctly reflects the theoretical true effect**

High, Moderate, Low, Very Low

2. Strength of Recommendation

- Quality of **supporting evidence**
- **Desirable and undesirable effects**
- **Values and preferences**
- **Resource use**

Strong, Weak

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KEY FINDINGS

Key Findings: Screening* for impaired vision

Alberta ERSC Systematic Review found:

- *No* evidence on the impact of vision screening on mortality, loss of independence, serious adverse effects from treatment, or on anxiety or stress;
- *Very low* quality evidence of an uncertain effect of vision screening on reducing fractures;
- *Low* quality evidence of no net benefit of screening on long term vision-related functioning;
- *Moderate* quality evidence of no overall benefit of screening on mean change in high contrast visual acuity;
- *Moderate* quality evidence from ten RCTs indicated no net benefit of screening on self-reported vision outcomes;

- …. in primary care settings for community-dwelling adults aged 65 years and over

***** Vision screening tests or charts, alone or within multicomponent screening/assessment (may include home- or online-based tools)

Patient Values and Preferences

CTFPHC-Commissioned Survey and Focus groups
(15 patients Phase I &
20 in Phase II):

- Patient preference findings were variable
- Generally articulated a preference for screening for impaired vision even though likelihood of benefit is unclear
- Some expressed concerns about the availability of screening at a population level and that a country-wide screening program might waste health care resources
- Some expressed concern about the limited time available to complete vision screening tests during primary care physician appointments

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RECOMMENDATION

Impaired Vision Guideline: Recommendation

- For practitioners on preventive health screening in a primary care setting

We recommend against screening for impaired vision in primary care settings

- ***Weak recommendation, low quality evidence***

❖ Applies to community-dwelling adults aged 65 years and over who live independently, are not in a known high risk group, and have not already disclosed visual problems to their practitioner

Overall Quality of Evidence

- **Overall quality of evidence** supporting this recommendation is **considered low** (i.e. *highly uncertain*), given the:
  - Low quality evidence on screening for impaired vision in community-dwelling adults aged 65 years and over who live independently, are not in a known high risk group, and have not already disclosed visual problems to their practitioner

Rationale for Direction of Recommendation Against Screening

- **Overall, low quality evidence was available on the effectiveness of screening (benefits and harms) among adults 65 years of age and older:**
  - Evidence of no overall benefit to patients from being screened, with the exception for the outcome of falls, which were slightly fewer among those screened.
  - In the judgement of the task force, benefit from screening older adults for impaired vision has not been demonstrated.
  - Delivering an intervention with no benefit carries an opportunity cost

Considerations for Re-Evaluating the CTFPHC Impaired Vision Screening Guideline

- **Emergence** of new **evidence** to **support screening** the **general population**
- **Evolution of new technologies for conducting screening**

Comparison: CTFPHC guideline vs. other recommendations

- This guideline is **consistent** with the recommendation on vision screening for older adults from the United States Preventive Services Task Force which indicated there was insufficient informatio to evaluate the outcome-based balance of risks and benefits

- Professional eye care associations generally recommend that adults aged 65 years and older have regular objective vision testing by an optometrist or other eye professional, with frequency based on age and risk factors

Knowledge Gaps

- Future trials should evaluate:
  - The effectiveness of screening older adults for impaired vision in relation to patient-important outcomes
  - Complex multi-component screening interventions which include vision screening require clarity about predicted interactions between vision and other components
  - Exploration of the impact of age, functional status and other population characteristics on the outcomes of vision screening interventions

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IMPLEMENTATION CONSIDERATIONS

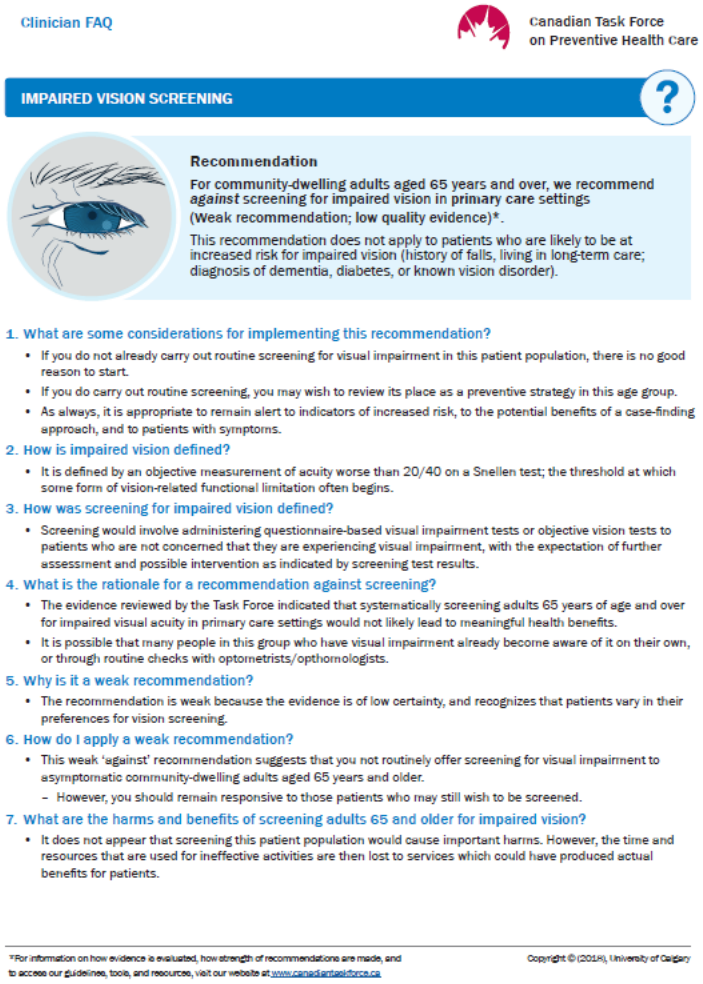
Implementation Considerations

- This recommendation applies to community-dwelling adults age 65 years and older. Subgroups of the population that are known to be at increased risk for impaired vision are not the focus of this recommendation, such as people with diabetes or glaucoma.
- The recommendation does not apply to people who live in full-time residential care or who have a diagnosis of dementia. Professionals who care for these patients should be alert to their potential for impaired vision.
- Some asymptomatic older adults may be interested in vision screening despite uncertain benefits. It is appropriate to remain alert to the potential benefits of a case-finding approach and to be open to discussion of vision screening
- A knowledge translation tool for professionals is provided on the task force website to support such discussions.
- Should a primary care provider and patient consider vision screening, thought should be given to the process of referrals for the patient to access treatment.

Knowledge Translation (KT) Tools

- CTFPHC has created a Q&A KT tool to support the implementation of the guideline into **clinical practice**

- After the public release, this tool will be **freely available** for download in both **French** and **English** on the website: www.canadiantaskforce.ca



Clinician FAQ

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IMPAIRED VISION SCREENING

Recommendation

For community-dwelling adults aged 65 years and over, we recommend ***against*** screening for impaired vision in **primary care** settings (Weak recommendation; low quality evidence)*.

This recommendation does not apply to patients who are likely to be at increased risk for impaired vision (history of falls, living in long-term care; diagnosis of dementia, diabetes, or known vision disorder).

1. What are some considerations for implementing this recommendation?
   - If you do not already carry out routine screening for visual impairment in this patient population, there is no good reason to start.
   - If you do carry out routine screening, you may wish to review its place as a preventive strategy in this age group.
   - As always, it is appropriate to remain alert to indicators of increased risk, to the potential benefits of a case-finding approach, and to patients with symptoms.
2. How is impaired vision defined?
   - It is defined by an objective measurement of acuity worse than 20/40 on a Snellen test; the threshold at which some form of vision-related functional limitation often begins.
3. How was screening for impaired vision defined?
   - Screening would involve administering questionnaire-based visual impairment tests or objective vision tests to patients who are not concerned that they are experiencing visual impairment, with the expectation of further assessment and possible intervention as indicated by screening test results.
4. What is the rationale for a recommendation against screening?
   - The evidence reviewed by the Task Force indicated that systematically screening adults 65 years of age and over for impaired visual acuity in primary care settings would not likely lead to meaningful health benefits.
   - It is possible that many people in this group who have visual impairment already become aware of it on their own, or through routine checks with optometrists/opthomologists.
5. Why is it a weak recommendation?
   - The recommendation is weak because the evidence is of low certainty, and recognizes that patients vary in their preferences for vision screening.
6. How do I apply a weak recommendation?
   - This weak 'against' recommendation suggests that you not routinely offer screening for visual impairment to asymptomatic community-dwelling adults aged 65 years and older.
     - However, you should remain responsive to those patients who may still wish to be screened.
7. What are the harms and benefits of screening adults 65 and older for impaired vision?
   - It does not appear that screening this patient population would cause important harms. However, the time and resources that are used for ineffective activities are then lost to services which could have produced actual benefits for patients.

*For information on how evidence is evaluated, how strength of recommendations are made, and to access our guidelines, tools, and resources, visit our website at www.canadiantaskforce.ca

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CONCLUSIONS

Conclusions: Key Points

- Current evidence does not support screening adults 65 years of age and older for impaired vision by primary care providers as a way to prevent functional limitations or other major consequences of impaired vision

- Primary care clinicians may consider confirming that older patients have had their vision checked by an optometrist or other ophthalmic primary care professional

More Information

For more information on the details of this guideline please see:

- Canadian Task Force for Preventive Health Care website: http://canadiantaskforce.ca

Questions & Answers

Thank you