Developmental Delay- Guideline Presentation

Speaker deck

OVERVIEW

We will review the following:

1. Introduction to CTFPHC
2. Background on Developmental Delay
3. Methods for Guideline Development
4. Recommendations and Key Findings
5. Implementation of Recommendations
6. Conclusions
7. Questions and Answers

CTFPHC BACKGROUND

CTFPHC Working Group Members:

The Developmental Delay Working Group included members from the Canadian Task Force on Preventive Health Care (CTFPHC), the Public Health Agency of Canada (PHAC), Canadian Paediatric Society, and the Evidence Review Synthesis Centre (ERSC) at McMaster University.

Task Force Members:

- Marcello Tonelli (Chair)
- Patricia Parkin
- Brett Thombs
- Paula Brauer
- Kevin Pottie

Public Health Agency of Canada:

- Anne-Marie Ugnat*
- Alejandra Jaramillo Garcia*
- Wendy Martin*
- Marianna Ofner* (as part of ASD-GC & ASD-AC)
- Sarah Connor Gorber* (PHAC/CIHR)
- Lesley Dunfield (previously with PHAC)

Canadian Paediatric Society

- Denis Leduc*

*non-voting member

Members of the McMaster Evidence Review and Synthesis Centre:

- Rachel Warren
- Meghan Kenny
- Donna Fitzpatrick-Lewis
- Maureen Rice
- Muhammad Usman Ali
- Andy Bayer
- Sharon Peck-Reid
- Donna Ciliska
- Diana Sherifali
- Parminder Raina

- Clinical expert: Dr. Teresa Bennett

- ERSC Peer-reviewers: Dr. Alice Carter, Dr. Sharon Smile, Dr. Isabel Smith, Dr. Lisa Hartling, Dr. Brian Reichow & Dr. Leslie Anne Campbell

CANADIAN TASK FOR ON PREVENTIVE HEALTH

The CTFPHC is an independent panel of clinicians and methodologists with expertise in prevention, primary care, literature synthesis, and critical appraisal that develop recommendations on clinical preventive services in primary care. The mandate of the CTFPHC is to develop and disseminate clinical practice guidelines for primary and preventive care, based on systematic analysis of scientific evidence, and support application of evidence to practice and policy. The CTFPHC uses a standard transparent process (the GRADE system) to review and synthesize evidence, weigh the balance of benefits and harms, and make recommendations.

Screening for Developmental Delay

BACKGROUND

Developmental delay (DD) may be transitory or sustained, and is characterized by below age-expected norms for one or more of the following domains: gross and fine motor skills, speech and language, social and personal skills, activities of daily living, and cognition. Children with sustained DD are at a higher risk of learning difficulties, behavioural problems, and functional impairments later in life. There is considerable interest in the possibility that early identification and intervention might improve health outcomes among children with DD.

The CTFPHC assessed the evidence on the effectiveness of population-based screening for DD in primary care; the accuracy of screening tools to identify undetected DD; and the effectiveness of behavioural interventions for DD.

SCREENING, SURVEILLANCE AND CASE FINDING

There is great variation in terminology related to the detection of DD, which can lead to misunderstandings. Screening refers to the use of a standardized tool to detect DD in populations where there are no overt signs suggestive of possible DD and no concerns about development. Developmental surveillance is often used to describe the ongoing monitoring of development, identification of risk factors, and elicitation of parental concerns. The CTFPHC considers developmental surveillance to be a part of standard clinical practice for children. Case finding refers to the identification of signs or symptoms suggestive of DD in populations that are at an increased risk of DD and often does not involve the use of a specific tool.

DEVELOPMENTAL DELAY 2016 GUIDELINES

This guideline provides recommendations for practitioners on preventive health screening for DD in a primary care setting. It does not offer guidance about surveillance, case finding or diagnosis of DD. This guideline applies to screening asymptomatic children aged 1 to 4 years with no apparent signs of DD and whose parents and clinicians have no concerns about the sequential acquirement of age-appropriate developmental milestones for gross and fine motor, social/emotional, language, and cognitive domains.

This guideline does not apply to children who are suspected of having DD by clinicians, family or friends; who have symptoms suggestive of DD; or whose development is being closely monitored because of risk factors such as premature birth or low birth weight.

Screening for Developmental Delay

METHODS OF THE CTFPHC

The CTFPHC is an independent panel of clinicians and methodologists with expertise in prevention, primary care, literature synthesis, and critical appraisal. The mandate of the CTFPHC is to apply the latest evidence in preventive health care research to primary care practice and policy across Canada.

The Developmental Delay Working Group is composed of 5 CTFPHC members and 1 member of the Canadian Paediatric Society who received support from PHAC science officers to establish the key research questions, analytical framework, and clinical and patient important outcomes.

The CTFPHC commissioned the Evidence Review and Synthesis Centre (ERSC), in consultation with field experts, to undertake a systematic review of literature based on this analytical framework and prepare a systematic review and quality assessment of the evidence with GRADE tables.

The CTFPHC review process is composed of an (i) internal review process and an (ii) external review process. The internal review process involves the guideline working group, the full CTFPHC, PHAC science officers and ERSC staff. The external review process involves the review of the guidelines by key stakeholders from generalist and disease specific organizations, and federal, provincial and territorial stakeholder groups. The Canadian Medical Association Journal (CMAJ), where most of the CTFPHC guidelines are published, undertakes its own independent peer review journal process.

Recommendations were formulated based on a comprehensive assessment of the balance of benefits and harms of screening, treatment, accuracy of screening tests and resource considerations.

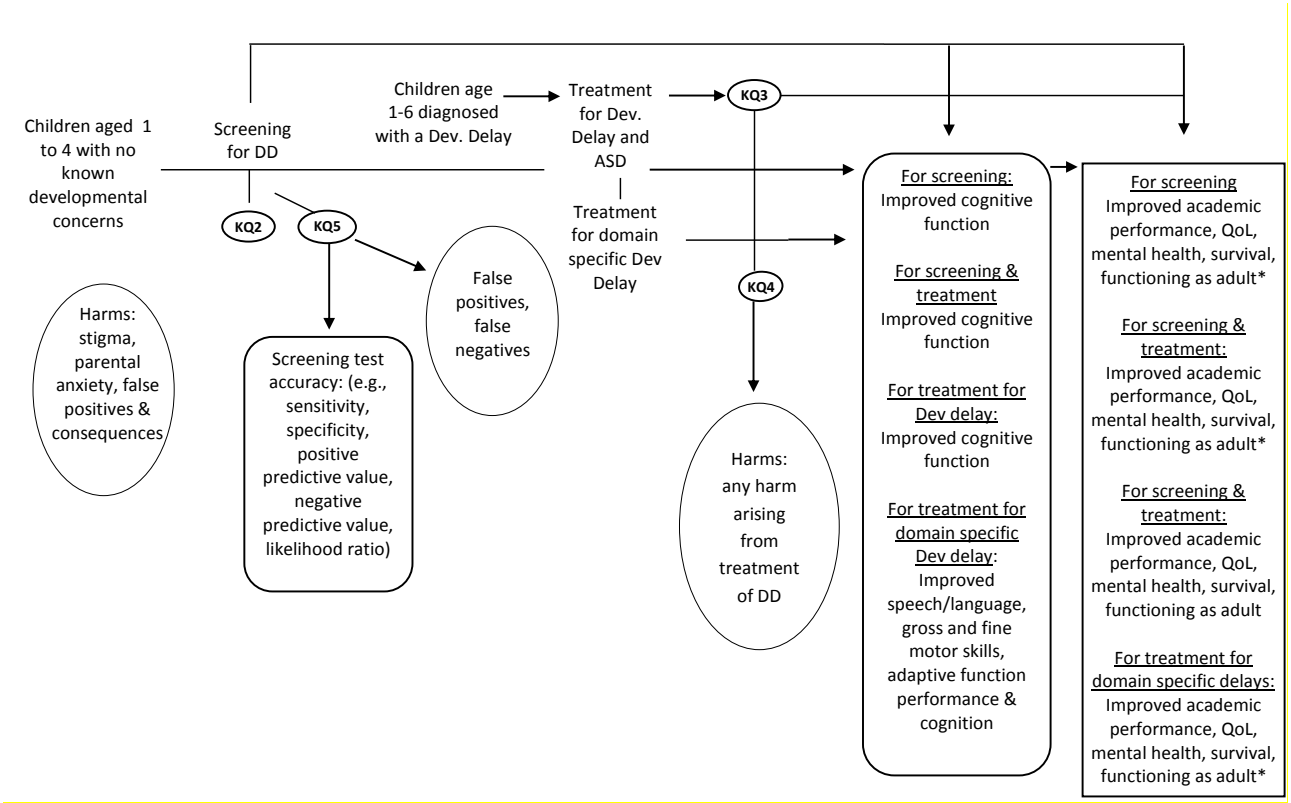
RESEARCH QUESTIONS

The systematic review for screening for DD included 5 key research questions (no sub questions) and 3 contextual questions. Key research questions were structured to provide evidence on optimal intervals for screening, the effectiveness of screening and treatment, the incidence of harms of screening and treatment, and the diagnostic properties of various screening tests. Cost-effectiveness, feasibility, values and preferences, and barriers to implementation of screening were explored through contextual questions.

Outcomes of interest included improvement to gross and fine motor skills, speech-language, cognition and performance, academic performance, adaptive functioning, overall quality of life, mental health, survival, and functionality as an adult.

For more detailed information please access the systematic review
www.canadiantaskforce.ca

EVIDENCE REVIEW ANALYTIC FRAMEWORK



The analytical framework outlines the scope of the evidence review and guideline recommendations. The purpose of the analytical framework is to show practicing physicians what the guideline includes and does not include and to visually display the relationship between the key concepts.

This guideline applies to children aged 1-4 years of age with no known development concerns. As outlined in the analytical framework, this guideline looks at the impact of both screening and treatment on primary outcomes (e.g., cognition function, QOL) as well as associated adverse effects (e.g., psychosocial harms such as labeling, hospitalization or death) and the accuracy of screening tests.

Stage 1: Screening

To explore the effectiveness of screening, the CTFPHC formulated the following key research questions (KQ1) What is the effectiveness of screening children aged 1 to 4 years without suspected DD to improve outcomes?; and (KQ2) What is the incidence of harms of screening children aged 1 to 4 years without suspected DD? The CTFPHC also sought to identify optimal intervals for screening. Both process and clinical outcomes were of interest. Process outcomes included referral rates for early intervention and the time to referral to early intervention. Clinical outcomes included

cognitive function; academic performance; incidence of mental health conditions; overall quality of life; survival; and functionality as an adult.

Eligible study types: Screening KQ1 & KQ2

The CTFPHC examined developmental screening tools as compared to standard care within primary care or public health settings. The population of interest included children aged 1 to 4 years not at high risk or suspected of having DD. High risk is defined as those children born prematurely (gestational age less than 37 completed weeks at birth) or with low birth weight (birth weight less than 2500 grams) and/or children with other known disorders that may be associated with or affect development.

Randomized control trials (RCTs), controlled trials, and controlled cohort studies with at least 6 months of follow-up data from baseline were eligible for review. Uncontrolled observational studies, case series and case reports reporting treatment outcomes for DD were excluded due to their inability to adequately determine or account for the effects of an intervention. Studies in both English and French were included. Patient important outcomes and the scales used to measure such outcomes were based on those selected and prioritized by Canadian clinicians and policymakers.

Stage 2: Treatment

To explore the effectiveness and harms of treatment, the CTFPHC formulated the following two research questions: (KQ3) What is the effectiveness of treatment for children diagnosed with DD to improve outcomes?; and (KQ4) What is the incidence of harms of treatment for children diagnosed with DD? Clinical outcomes of interest included cognitive function; academic performance; incidence of mental health conditions; overall quality of life; survival; functionality as an adult; and improvement to gross and fine motor skills, language, adaptive functioning, and cognition and performance (for domain specific delays).

Eligible Study Types: Treatment KQ3 & KQ4

The CTFPHC reviewed any behavioural, psychological or pharmacological interventions for children aged 1 to 6 years of age diagnosed with domain specific DD in one or more of the domains (gross and fine motor skills; speech and language; social and personal activities of daily living; and performance and cognition).

Systematic reviews and RCTs using comparison groups receiving usual care or no intervention were considered for review. Uncontrolled observational studies, case series, and case reports reporting treatment outcomes for DD were excluded due to their inability to adequately determine or account for the effects of an intervention. Studies in both English and French were included. Patient important outcomes and the scales used to measure such outcomes were based on those selected and prioritized by Canadian clinicians and policymakers.

Stage 3: Test Properties

To explore DD screening test properties, the CTFPHC formulated the following question: (KQ5) What is the sensitivity, specificity, positive and negative predictive values, and likelihood ratios of the various screening tests to assess DD in children aged 1 to 4 years who are not already suspected of having DD?

Eligible study types: Test Properties KQ5

The CTFPHC reviewed any short screening tests, tools or questionnaires that could be administered in a primary care setting or currently in use in Canada for children aged 1 to 4 years without suspected DD. Reviewed tests included the Ages and Stages Questionnaire (ASQ); Parents' Evaluation of Developmental Status (PEDS); and the Nipissing District Developmental Screen (NDDS). Prognostic, predictive, and diagnostic tools were excluded from review.

RCTs, cohort, and case-control studies that administered index and reference tests concurrently or within a brief time interval were eligible for review. Studies in both English and French were included. Clinical or diagnostic evaluations using the Bayley Scale of Infant Development (BSID or BSID-II), Wechsler Preschool and Primary Scale of Intelligence (WPPSI) and the Vineland Adaptive Behavior Scale (VABS) were considered a reference standard.

Contextual Questions

The CTFPHC explored 3 contextual questions in the literature review:

1. What is the cost-effectiveness and feasibility of screening for DD in children aged 1-4 years?
2. What are parent/care givers' values and preferences for screening?
3. What is the evidence for higher burden of disease, differential performance for screening and/or treatment response for DD, or barriers to implementation of screening in subgroups?

HOW IS EVIDENCE GRADED?

The CTFPHC utilizes the GRADE system for providing clinical practice guideline recommendations based on a systematic review of the available evidence. The **GRADE** acronym stands for: **G**rading of **R**ecommendations, **A**ssessment, **D**evelopment and **E**valuation.

The GRADE system is composed of two main components:

1. **The quality of the evidence**: The quality of the evidence measures the degree of confidence that the available evidence correctly reflects the theoretical true effect of the intervention or service. It is graded as high, moderate, low or very low based on how likely further research is to change our confidence in the estimate of effect.
2. **The strength of recommendation:** The strength of the recommendation (strong/weak) is based on the quality of supporting evidence, the degree of

uncertainty about the balance between desirable and undesirable effects, the degree of uncertainty or variability in values and preferences, and the degree of uncertainty about whether an intervention represents a wide use of resources.

How is the Strength of Recommendations Determined?

The strength of the recommendations (strong or weak) is based on four factors:

1. The quality of the supporting evidence
2. The certainty about the balance between desirable and undesirable effects
3. The certainty or variability in the values and preferences of individuals
4. The certainty about whether the intervention represents a wise use of resources

Interpretation of Recommendations

Implications	Strong Recommendation	Weak Recommendations
For patients	Most individuals would want the recommended course of action; Only a small proportion would not.	The majority of individuals in this, situation would want the suggested course of action but many would not.
For clinicians	Most individuals should receive the intervention.	Recognize that different choices will be appropriate for individual patients; Clinicians must help patients make management decisions consistent with values and preferences.
For policy makers	The recommendation can be adapted as, policy in most situations.	Policy making will require substantial debate and involvement of various stakeholders.

This is a standard GRADE table which outlines how weak or strong recommendations should be interpreted and implemented by different groups or stakeholders. It is important to consider the strength of the recommendations when interpreting the CTFPHC guidelines for implementation in clinical practice, for policy, or for patients in decision making.

Screening for Developmental Delay
RECOMMENDATIONS & KEY FINDINGS

Evidence: Screening for DD

The CTFPHC identified one moderate-quality American study (n=2103) that measured whether screening for DD improves process outcomes, including time to referral, percentage of early referrals, and eligibility for early intervention services. The study compared children screening (with and without office support) using ASQ-II at 9, 18, and 30 months and M-CHAT at 18 and 24 months with usual care. Age appropriate milestones were assessed at well child visits.

	Screen with office with support (to complete ASQ) (n = 704)	Screening without office support (to complete ASQ) (n = 693)	Standard care (n = 695)	P Value for Overall Difference Between Arms
Identified delay	23.0% (n=162)	26.8% n=186	13.0% n=90	<.001
Referred to Early Intervention* (EI) assessment	19.9% 140	17.5% n=121	10.2% n=71	<.001
Completion of EI* assessment	9.8% n=69	8.5% n=59	6.0% n=42	<.001
Eligible for EI* services	7.0% n=49	5.3% n=37	3.0%. n==21	.004
Time to referral	181 days 70% shorter time to referral compared with control	234 days 64% shorter time to referral compared with control	467 days	

As seen in the above table, for screening with office support, DD was identified in 23% of children as compared to 26.8% without office support and in 13% of children receiving standard care. Children who received screening were two times more likely to be referred to early intervention assessments as compared to those receiving standard care. Moreover, the time to referral was 70% less for those children who received screening as compared to children receiving standard care. However, surrogate process-based outcomes do not necessarily imply better clinical outcomes as a result of screening. The GRADE rating for all process outcomes in the study were of moderate-quality.

The CTFPHC also found one low-quality cluster RCT reporting on academic outcomes of children screened for language delay in the Netherlands. The study compared outcomes at 8 years of age for children screened at 15 to 18 months and 24 months using the VroegTijdige Onderkenning Ontwikkelingsstoornissen (VTO) language screening instrument as compared to standard care (no screening). Following screening, the study did not offer an intervention and did not indicate whether children received interventions elsewhere. No significant differences were found in the educational attainment between children identified with language delay through screening or through usual care (RR 0.99 for repeating a grade [95% CI 0.81 to 1.21]). Further, there was little difference in performance on standardized tests between screened and non-screened children (RR 0.88 for performance on oral test <10th percentile, 95% CI 0.63, 1.2; RR 1.00 for reading texts <10th percentile [95% CI 0.72 to 1.40]). Some differences were observed in performance on standardized spelling tests

(RR 0.68 for spelling texts <10th percentile [95% CI 0.41 to 1.13]). The GRADE rating for all outcomes for academic performance were considered low and were downgraded for potential risk of bias due to insufficient information on allocation concealment and blinding of participants. Imprecision due to effect estimate including a null value also informed the downgrading of the quality of evidence.

The CTFPHC did not identify any studies that reported on the effect of screening on cognitive function, quality of life, incidence of mental health conditions, survival, or functionality as an adult.

Evidence: Treatment of DD

The CTFPHC considered findings from RCTs and systematic reviews on the treatment of children aged 1 to 6 years with known DD, including DD associated with autism spectrum disorders (ASD). Children up to 6 years of age were included to allow sufficient time to observe treatment effects in children diagnosed at age 4. These studies were considered a potential source of indirect evidence on the benefits of screening.

The CTFPHC identified three structured language-based interventions (n=239 total) for children with speech/language impairments that offered some improvement (Standard Mean Difference of 0.81 [95% CI 0.02 to 1.60]). The CTFPHC also reviewed evidence from five systematic reviews on treatment for ASD. The results of this review are summarized in the table below:

Study	Intervention	Outcome	Size	Effect
Virues-Ortega 2010	Applied Behavioural Analysis (ABA)	Cognitive Function IQ	3 studies N=129	Standard Mean Difference (SMD): 1.34 (0.60, 2.08)
Reichow 2012	Early Intensive Behavioural Intervention (EIBI)	Cognitive Function (composite IQ)	5 studies n= 200 4 pooled n=172 n=28	Four studies SMD: 0.76 95% CI 0.04 ,1.11 One study was not pooled (Smith 2000): g=0.74
Spreckley 2009	Applied Behavioural Intervention (ABI)	Cognitive Function	N/A	No studies reported due to duplication with other syst. reviews
Oono 2013	Parent-mediated early intervention	Cognitive Function	1 study n=24	Authors state study did not report any difference between groups
Alternative interventions				
Cheuk 2011	Acupuncture w/ standard care Acupressure w/ standard care	Cognitive Function GMDS Leiter-R CPEP Basic developmental assessment	4 studies (n=179) not pooled n= 50 n= 59 n= 40 n=30	 SMD 3.46 95% CI -2.0,8.92 Reported no significant difference CPEP MD 10.75, 95% CI 3.82,17.68 P = 0.002 Reported no significant difference

As seen in the table, two systematic reviews examining intensive behavioural interventions found improved cognitive function in children with known DD due to ASD. The Applied Behavioural Analysis intervention (n=129) showed a standard mean difference of 1.34 (95% CI 0.60 to 2.08) and the Early Intensive Behavioural Intervention (n=172) showed a standard mean difference of 0.76 (95% CI 0.04 to 1.11).

In comparison, one systematic review of parent-mediated interventions had no effect on cognitive outcomes and one systematic review of an alternative intervention reported no significant difference on multiple outcomes of interest. One systematic review reported no studies due to duplication with other systematic reviews. No harms from treatment were identified in the review.

The CTFPHC found no studies that reported on treatment outcomes for academic performance; fine and/or gross motor skills; mental health; adaptive function; social skills; survival; or functionality as an adult.

Evidence: Diagnostic Accuracy of Screening Tests

The CTFPHC examined three different screening tests for assessing DD based on reports from primary studies. Overall, commonly used screening tests were found to have inconsistent accuracy and moderate to low specificity, which would lead to a high proportion of false positive results.

In a study of the Ages and Stages Questionnaire (ASQ) and the Parents' Evaluation of Developmental Status (PEDS) (n=331; 34 cases, 297 non-cases) children aged 12 to 60 months, without a documented history of DD in general primary care settings, were screened. Results indicated that the ASQ has a sensitivity of 82% and specificity of 78% with a 22% false positive result. A second study (n=565; 13 cases) of children aged 18 to 42 months found the ASQ to have a sensitivity of 62% and specificity of 84% with a 16% false positive rate. The PEDS screening tool was found to have a sensitivity of 74% and a specificity of 64% with a 36% false positive rate.

In a forthcoming peer reviewed study (n=812; 31 cases), the Nipissing District Developmental Screen (NDDS) was found to have moderate re-test reliability (78%). The NDDS was also found to have a sensitivity of 29-63% and specificity of 65-88% with a 12-35% false positive rate. Rates varied based on age and cut-points used. There are currently no other peer reviewed studies on the NDDS.

The CTFPHC found very few studies comparing screening tools to diagnostic assessments at close to the same time point with enough cases and non-cases to reasonably evaluate diagnostic accuracy.

Harms and Benefits for Screening and Treatment

There was no RCT evidence demonstrating any clinical benefits associated with screening for DD. Possible harms related to screening included: false positives among children without DD; anxiety and labeling among children without DD; and the cost of conducting unnecessary medical care (e.g., investigation, referral, treatment). Screening using standardized tools compared with developmental surveillance increased the likelihood of being identified with a possible DD and receiving a referral for specialist or multidisciplinary evaluation for DD. However, these process-based

outcomes do not necessarily imply improved clinical outcomes. Further the study did not assess the accuracy of screening tests and therefore it is unclear if screening tests were producing false positive results.

Some evidence suggests that treatment of certain types of DD (once identified) is beneficial compared with no treatment. There was no evidence that screening asymptomatic children is necessary to obtain this benefit.

Evidence: Contextual Questions

The systematic review was unable to locate any studies reporting on parent values, preferences or willingness to have their children screened. No evidence reporting on the cost-effectiveness and feasibility of screening for DD in children was identified in the evidence review. Additionally, the evidence review did not find any studies reporting on higher burden of disease, differential performance for screening and/or treatment response for DD, or barriers to implementation of screening in subgroups.

Values and Preferences

The evidence review did not find any studies investigating the values and preferences of parents or primary caregivers regarding screening for DD.

CTFPHC Recommendation

We recommend against screening for developmental delay using standardized tools in asymptomatic children aged 1 to 4 years whose parents and clinicians have no concerns about development (Strong recommendation; low quality evidence).

Remarks: This recommendation applies to children aged 1 to 4 years with no apparent signs of DD and whose parents or clinicians have no concerns about development. These are children whose age-appropriate developmental milestones have been sequentially acquired for gross and fine motor, social/emotional, language, and cognitive domains. Milestone ages should be based on the oldest age by which the skill should have been achieved. This recommendation does not apply to children who present with signs, symptoms, or parental concern that could indicate developmental delay or whose development is being closely monitored because of identified risk factors such as premature birth or low birth weight.

Basis of the recommendation: The CTFPHC based this recommendation on the findings of the lack of high-quality studies that demonstrate screening children for developmental delay improves health outcomes. There was also no evidence that commonly used screening tools would consistently identify otherwise unrecognized cases, however, there was evidence that their low specificity would lead to a high proportion of false positive tests.

The CTFPHC places a relatively *higher* value on the absence of evidence showing that screening is beneficial, the poor diagnostic accuracy of screening tests, the risk of false positives that could result from screening and the potential for screening to divert resources from the treatment of children with clinically evident DD

The CTFPHC places a relatively *lower* value on the few relatively small studies that suggest a benefit of treating certain forms of clinically evident DD, and on the lack of harms and parents/caregivers preferences and values in relation to screening.

The evidence supporting this recommendation is rated overall as low quality based on current available literature. The systematic review found low-quality evidence examining the effect of screening on academic performance and no evidence reporting on the other clinical outcomes of interest. A small number of moderate-quality studies examining the effect of treatment on language impairment and cognition were located but considered insufficient to support a recommendation for screening. Further, the review did not identify any evidence for the remaining six outcomes of interest, including improvement to gross and fine motor skills; adaptive functioning; incidence of mental health conditions; overall quality of life; survival; and functionality as an adult.

Research Gaps

The CTFPHC found a dearth in high quality studies examining the benefits of screening for DD and evidence for the long-term effectiveness of treatment. Rigorous, controlled studies evaluating the effects of various treatment programs for children with known DD should be an urgent priority. Further research is also needed to determine the most effective methods and tools for identifying DD.

Comparison of Screening for Developmental Delay Recommendations

The previous 1994 CTFPHC guideline recommended against the use of the Denver Developmental Screening Test and found insufficient evidence for other screening tests. The United States Preventive Services Task Force (USPSTF) 2015 guidelineconcluded there was insufficient evidence to assess the balance of benefits and harms of screening for speech and language delay; and the 2016 Autism Spectrum Disorder (ASD) guideline also found insufficient evidence to assess the balance of benefits and arms of screening for ASD.

The American Academy of Pediatrics (AAP) recommends routinely screening all children for DD using a standardized screening tool. Similarly, the Canadian Paediatric Society 2011 guideline recommended screening for DD using a standardized tool such as NDDS at 18 month well-baby visits. International guidelines from the United Kingdom and Scotland offer no guidance on DD and recommend against population-based screening for ASD.

Screening for Developmental Delay
IMPLEMENTATION OF RECOMMENDATIONS

Implementation in Practice

To implement this recommendation the CTFPHC encourages clinicians to continue with standard clinical practice, including ongoing monitoring of development, the identification of risk factors for DD, being alert to signs of DD, talking with parents about their child's development, and eliciting any parental concerns. Clinicians should consider the possibility of DD in children with signs that may suggest a delay in any developmental domain, those whose parents or caregivers have concerns about development, or children with significant risk factors, including low birth weight, premature birth, and family history of DD. It is suggested that clinicians remain vigilant to any social, economic, or environmental factors that might reduce the likelihood for parents to raise concerns about development. Clinicians should proceed with case finding for children they believe may be at risk of DD and provide clinical evaluations when possible signs of DD are detected in individual patients, referring children for specialist evaluation as clinically indicated.

KT TOOLS

The CTFPHC creates KT tools to support the implementation of guidelines into clinical practice. A clinician FAQ has been developed for the Developmental Delay guideline. After the public release, these tools will be freely available for download in both French and English on the website: www.canadiantaskforce.ca

Screening for Developmental Delay
CONCLUSIONS

Key Points

The CTFPHC recommends against screening for developmental delay using standardized tools in children aged 1 to 4 years with no apparent signs of DD and whose parents and clinicians have no concerns about development (strong recommendation; low-quality evidence). This recommendation is based on the CTFPHC finding no high-quality evidence to suggest that population-based screening for DD improves health outcomes and that screening tools would identify otherwise unrecognized cases. Further, the CTFPHC found that evidence on treatment for known DD is lacking and only a few small trials suggest that speech and language therapy may improve impairment and that treatment of autism may improve cognitive function.

Primary care providers are encouraged to continue with standard clinical practice, including the identification of risk factors for DD, being alert to signs and symptoms of

DD, and eliciting any parental concerns about development. Clinicians should proceed with case finding for children they believe may be at risk of DD and clinical evaluation when possible signs of DD are detected in individual patients.

Conclusions

The CTFPHC recommends physicians to remain vigilant in monitoring a child's development at each clinical encounter and focus on confirming the diagnosis of DD among children in whom it is suspected. Studies examining the benefits of screening for developmental delay and the long-term effectiveness of treatment are lacking. Studies evaluating the best ways to treat children with known DD should be an urgent priority, especially given the promising findings about the potential benefits of treating diagnosed DD.

Update: CTFPHC Mobile App Now Available

The app contains guideline and recommendation summaries, knowledge translation tools, and links to additional resources.

Key features include the ability to bookmark sections for easy access, display content in either English or French, and change the font size of text.

Update: CTFPHC on Social Media

The CTFPHC is venturing into social media! A Twitter policy and strategy is currently being developed and CTFPHC Twitter is expected to be released sometime in 2016. Please check the CTFPHC website for updates: http://canadiantaskforce.ca/.

More information

For more information on the details of this guideline or to access the KT tools please refer to the evidence review in the resources section of the website www.canadiantaskforce.ca.