



# National Screening Tool Kit

for Children and Youth Identified and Potentially  
Affected by Fetal Alcohol Spectrum Disorder

**CAPHC**



**ACCSP**

**CANADIAN ASSOCIATION OF PAEDIATRIC HEALTH CENTRES**  
**ASSOCIATION CANADIENNE DES CENTRES DE SANTÉ PÉDIATRIQUES**



# Screening- definition

The UK National Screening Committee defines screening as

- *“A public health service in which members of a defined population, who do not necessarily perceive they are at risk of, or are already affected by a disease or its complications, are asked a question or offered a test, to identify those individuals who are more likely to be helped than harmed by further tests or treatment to reduce the risk of a disease or its complications.”*



# Principles of Process

The Tool Kit was developed using a set of criteria to evaluate the identified tools in terms of sensitivity, specificity, positive and negative predictive values, and for their practical applicability in terms of:

- Ease of use;
- Accessibility;
- Cost;
- Expertise required;
- Cultural appropriateness; and
- Interpretation of results.





# Neurobehavioural Screening Tool

## Description

- items from the Child Behaviour Checklist (CBCL), which can screen for FASD behavioural phenotype.
- When tested with this tool, many children with FASD exhibited specific behavioural characteristics.
- When comparing children with FASD to children with ADHD and ODD/CD, seven items on the CBCL associated with conduct disorders were typical in children with FASD:
  - Acts too young for his/her age;
  - Cannot concentrate/poor attention;
  - Cannot sit still/restless/hyperactive;
  - Disobedient at home;
  - No guilt after misbehaving;
  - Impulsive/acts without thinking; and
  - Lying and cheating





## NBS (2)

### Benefits

- A screening tool which can identify children who may have FASD, and differentiate between ADHD, ODD/CD and FASD affected children; and
  - A simple checklist which can be administered to parent or any caregiver by a health or social services professional



## NBS (3)



### **Population for screening**

Children and youth ages 6-18  
years



### **Administration of tool**

Health or social services provider  
to parent or caregiver



### **Time Required**

Less than five minutes

# Meconium Testing

- **Focuses on the newborn infant Meconium, the first stool of the baby**
- **available only in days 1–3 of life and samples must be collected within that time frame.**
- **When the fetus is exposed to large amounts of maternal alcohol, he/she accumulates the by-products of alcohol, Fatty Acid Ethyl Esters (FAEE), which can be measured and confirm fetal exposure to alcohol.**
- **Can be used for population screening to identify the rates of heavy alcohol exposure during pregnancy, or in individual cases of suspected high risk.**







# Meconium Testing

## Benefits

- Improved understanding of the epidemiology of alcohol exposure during pregnancy;
- Improvement in public health initiatives to address FASD;
- Improved early diagnosis and consequent encouragement of early intervention; and
- Identification of high risk pregnancies with potential benefit to both mother and child.



## Meconium (3)

### Limitations

- Reflects ethanol consumption only after 12 weeks post conception;
- In the absence of full interpretability, meconium testing results have the potential for misuses by courts and social services agencies;
- Possible impacts on individuals, families and cultural groups require careful consideration; and
- Relatively expensive at this time which will be reduced with wider-scale implementation



# Maternal Drinking Guide

- The purpose of this tool is to determine if a woman drinks or has drunk at a problem drinking level in pregnancy. It is a guide to be used by health and social services professionals within their practices as part of their overall health assessment.





# Maternal Drinking (2)

## Benefits

- **Methods have been validated as effective means of eliciting maternal alcohol use;**
- **Provides practitioner with options appropriate for different groups and circumstances; and**
- **Questions are easily integrated into an overall health assessment, providing an opportunity for education, harm reduction and referral.**

## Limitations

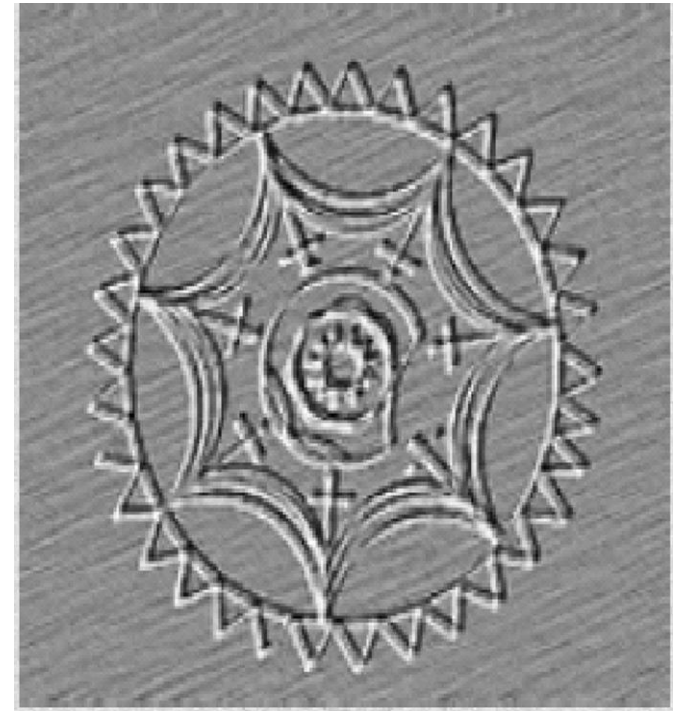
- **Health and social services practitioners are often pressured for time;**
- **Services for referral and follow-up may be limited or not fully known to practitioners; and**
- **Methods have not been validated for use in eliciting retrospective alcohol consumption during a pregnancy.**

## Population for screening

**At-risk women**

# Medicine Wheel Tools

- The Medicine Wheel Tools have been developed to provide a culturally sensitive assessment or screening tool with a broad enough lens to take in the range of needs and strengths that exist in an aboriginal school and community system.
- At the present time there is no culturally sensitive school screening tool to determine which children should be referred for assessment of conditions that seriously impair behaviour and learning such as trauma or pre-natal exposures to alcohol and/or drugs.





# Medicine Wheel (2)

## Benefits

- Tools have been developed in a cultural, spiritual, family context;
- Tools have been tested in a First Nations context and also adapted to Inuit cultures;
- The tools fit with traditional practices; and
- Student Index Tool is useful for identifying and tracking specific behaviours and changes in these behaviours over time.

## Limitations

- Tools require further validation;
- Human resources may be severely limited in some aboriginal communities;
- Services for referral and assessment may not be available; and
- Training needs and resources for tool implementation have not been fully assessed.



# Medicine Wheel:

## Screen Positive Criteria for FASD

- **A. Identified by teacher in 'Multiple Areas of Need' sub-domain as having severe and multiple problems**
  
- **B. Identified as having a mixture of moderate and severe problems (score 2 or 3) in 3 or more items from the following domains and sub-domains.**
- **Items from both Mind sub-domains must always be included. Items can include:**
- **Mind Domain**
  - Sub-Domain: Ability Achievement Items**
  - **General Ability**
  - **Numeracy-Achievement**
  - **Literacy- Achievement-**
  - **Language (Social Communication)**





# Medicine Wheel (4)

## Sub-Domain: Neurobehavior Items

- Short Attention Span
- Hyperactivity
- Impulsivity (Self-regulation)
- Lack of Focus
- Memory Problems
- Organizational Problems
- Difficulty with Task Initiation
- Difficulty with Transitions

## Social and Physical Domain Items

- Lies, steals, destroys things, acts younger than age, coordination



# Effectiveness

- \* **have proven very effective in Elsipogtog, the First Nations community where they were developed.**
  - \* **In the first two years of using the tools 237 children were screened and 23% of these proceeded to diagnostic clinic.**
  - \* **65% of these were diagnosed with FASD.**
  - \* **of 187 children approximately 20% were diagnosed with FASD by the end of the 2009-2010 school year.**
- Children in the community who were diagnosed with FASD were able to receive appropriate support in school.**
- \* **With this support diagnosed youth have been able to attend and graduate high school. A few have gone on to college and post-secondary training.**





# FASD Screening and Referral Tool for Youth Probation Officers

- There is evidence that youth and adults with FASD are over-represented in the justice system.
- The FASD Screening and Referral Tool for Youth Probation Officers and User's Guide were developed by the Asante Centre for Fetal Alcohol Syndrome in British Columbia.
- Its purpose is to screen young offenders for risk of FASD and refer them for further assessment as required.



# Asante Probation Officer Tool (2)



## Benefits

- Addresses needs of a high risk group;
- Referral form is user-friendly; self-explanatory;
- Manual is clearly written, includes relevant research;
- Case management form is very practical and useful;
- Criteria for referral for further assessment are clear; and
- Tool extensively used with the youth justice population in British Columbia.



## Limitations

- Access to maternal history information varies across jurisdictions;
- Time constraints for probation officers and need for acceptance at the senior management level;
- Assessment and diagnostic services are severely limited in some areas; and
- Tool requires implementation in other jurisdictions and further validation



**Administration of Tool:**

**Probation officers**



# Steering Committee

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# Next Phase

- Fall 2010: National Distribution of ToolKit
- 2011- Coast to Coast Training
- 2010-2012 pilot testing:
  - \* **Meconium**- in PEI
  - \* **Neurobehavioral testing**- Alberta, BC
  - \* **Asante Probation Officers** tool: Manitoba
  - \* **Medicine Wheel** Tool: in several aboriginal communities
  - \* **Maternal drinking**- Quebec



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