

NutriSTEP[®]

.....

IMPLEMENTATION

TOOLKIT

.....

JUNE 2015

ACKNOWLEDGEMENTS

The NutriSTEP® project has been led by dietitian researchers from the Sudbury & District Health Unit and the Universities of Guelph and Waterloo. It has been recognized that to implement a nutrition screening program at the individual, agency or community level, a supportive toolkit is required. A draft toolkit was developed in June 2007 with funding from the Government of Ontario. An updated and revised Toolkit was published in 2008 with the financial support of the Nutrition Resource Centre (NRC) and the Danone Institute of Canada. This 2015 version has been updated with financial support from the NRC.

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NutriSTEP® stands for **N**utrition **S**creening **T**ool for **E**very **P**reschooler and is the original acronym that continues to be used, with the new tagline: **Nutrition Screening for Toddlers and Preschoolers**.

NutriSTEP® is a fast and simple way to screen for eating habits and identify nutrition issues in children. It includes valid and reliable questionnaires that can differentiate between toddlers and preschoolers who are at nutrition risk and those who are not. The questionnaires are intended to be completed by parents, usually under the guidance of community professionals. The term 'nutrition risk' is meant to be used by community professionals. NutriSTEP® research suggested that, for parents, other terms such as 'what is going well' and 'what to work on' are more appropriate (J. Randall Simpson, personal communication, June 2015).

This Toolkit is intended for use by community professionals in order to support their implementation of a NutriSTEP® nutrition screening program. This Toolkit includes background information on: the NutriSTEP® program; training and support materials; suggested models for NutriSTEP® implementation; guidelines to assist with scoring and interpreting the NutriSTEP® nutrition risk screening questionnaires; and, on making referrals. There is also information to build a supportive framework for screening. These toolkit components will help users to implement a feasible and sustainable community nutrition screening program for young children.

There are links to the software distribution site for licenses for PDF versions of the NutriSTEP® questionnaires. As well, there is a link to the internet versions of the NutriSTEP® questionnaires, also known as Nutri-eSTEP (www.nutritionscreen.ca), that are accompanied by links to credible nutrition education resources for parents who complete the questionnaires independently.

Evidence clearly shows that poor nutrition in young children can lead to many negative outcomes such as failure to thrive, obesity, anemia, restrained eating, poor eating habits that become lifelong, lack of school readiness, and inability to learn at school¹.

Until recently, there was no clear way to quickly identify nutrition problems or nutrition risk in young children. In 2008, the Preschool NutriSTEP® was released for children 3-5 years of age²; in 2012, the Toddler NutriSTEP® for younger children (18-35 months of age) was released³. Both questionnaires are valid and reliable^{2,3}. The original Preschool NutriSTEP® was developed concurrently in both English and French and has been translated into six other commonly used languages in Canada (Traditional Chinese, Simplified Chinese, Punjabi, Spanish, Tamil, and Vietnamese). The Toddler NutriSTEP® was developed in English; translations in French and Spanish are also available. Each questionnaire takes less than 10 minutes for a parent/caregiver to complete, and both have been designed for administration in a variety of settings, with or without assistance for completion.

The purpose of nutrition risk screening is to identify issues before they become serious or cannot be reversed and to refer those at risk for appropriate assessment and treatment. The NutriSTEP® questionnaires provide:

- Early identification of potential nutrition issues
- Parent/caregiver referral to community resources for primary prevention
- Parent/caregiver nutrition education
- Support in evaluating toddler and preschool nutrition interventions
- A means of monitoring community child nutrition programs

NutriSTEP® Toolkit Goals

- To increase knowledge and understanding of the research behind the development of the NutriSTEP® questionnaires
- To introduce the concept of ethical nutrition risk screening
- To assist with planning and developing a comprehensive NutriSTEP® implementation plan
- To assist communities and agencies to successfully implement ethical nutrition risk screening for toddlers and preschoolers with NutriSTEP®

Development of the NutriSTEP® questionnaires:

The original 2008 version of NutriSTEP® (Nutrition Screening Tool for Every Preschooler) was designed for children 3-5 years of age². In 2012, a Toddler NutriSTEP® (Nutrition Screening Tool for Every Toddler) was released for children 18-35 months of age³. The NutriSTEP® questionnaires have been developed, refined, checked for reliability and validated with multicultural and multiethnic Canadian parents and their young children^{2,3}. This work has involved almost 3000 toddlers and preschoolers and their parents, and more than 50 multisectoral partners. The original NutriSTEP® acronym continues to be used, for the toddler version and in the development of NutriSTEP® questionnaires for other age groups.

For the development of the original NutriSTEP® for preschoolers, parents and their children participated from the following locations: Northern and Southern New Brunswick; Southwestern, Central and Northern Ontario (Sioux Lookout, Manitoulin Island, Sudbury); Central and Northern Manitoba; and, Southern British Columbia. The development of the original NutriSTEP® for preschoolers took 10 years (1998-2008) and was funded by municipal, provincial and federal governments. The original NutriSTEP® was developed concurrently in English and French with subsequent translation to six other languages.

Figure 1 in Appendix A shows the NutriSTEP® project phases and funding sources.

The development of the Toddler NutriSTEP® (2010-2012), funded by the Canadian Institutes of Health Research (CIHR), followed a similar process and included parents and their toddlers from Northern and Southern Ontario (Thunder Bay, Sudbury, Manitoulin Island, Toronto, Waterloo, Guelph, York Region, Peterborough, Hamilton). The Toddler NutriSTEP® was developed in English with subsequent translation to French and Spanish.

Figure 2 in Appendix A shows the steps in the development of the Toddler NutriSTEP®.

In 2012, the NutriSTEP® research team received CIHR funding to develop and launch internet versions of both questionnaires on the Dietitians of Canada website as part of an online tool called Nutri-eSTEP. This site gives more parents access to nutrition screening and those who complete the NutriSTEP® questionnaires receive immediate results and comprehensive feedback messages on their children's nutrition and lifestyle habits as well as links to supportive resources. The internet version of NutriSTEP® has been demonstrated to be reliable relative to the paper version⁴.

Figure 3 in Appendix A shows the steps in the development of Nutri-eSTEP.

Knowledge Translation:

In 2008-2009, Knowledge Translation (KT) funding was obtained from CIHR to develop a website (www.nutristep.ca). The website provides information on the NutriSTEP® program and how to acquire a licence for the PDF versions in all languages. The NutriSTEP® Implementation Toolkit is available for download on the site. Information is also provided on how to join the NutriSTEP® online community and on various research activities.

Nutrition Education:

There was a strong focus on community-based practice during the development of the NutriSTEP® questionnaires. Throughout the development, nutrition education for parents was a priority. Hundreds of parents and caregivers learned about the importance of nutrition for their children, and children identified as high risk received nutritional assessments and referrals⁵.

Two parent/caregiver nutrition education pamphlets were produced and evaluated during the NutriSTEP® development: "How to Build a Healthy Preschooler" and "How to Build a Healthy Toddler". These educational materials filled an identified gap in available resources for this age group⁵.

Research has demonstrated that these pamphlets can change parents' nutrition knowledge and attitudes⁵. Further, building on the "How to Build" pamphlets, the comprehensive feedback messages for each NutriSTEP® question for both questionnaires on the Nutri-eSTEP site were developed. These two educational materials have been updated to reflect current guidelines including: Nutrition for Healthy Term Infants (Recommendations from Six to 24 Months); Canada's Food Guide; Canadian Physical Activity Guidelines; and Canadian Sedentary Behaviour Guidelines.

How to Build a Healthy Toddler and How to Build a Healthy Preschooler pamphlets can be found in Appendix E.

During the development of NutriSTEP®, a need for education on nutrition for young children for Registered Dietitians (RDs) was also identified. Primers for RDs on preschool nutrition were developed and are available on the NutriSTEP® website (www.nutristep.ca).

Implementation:

NutriSTEP® was identified in the Healthy Kids Panel Report: "No Time to Wait: The Healthy Kids Strategy" as an important tool for assessing nutrition risk in toddlers and preschoolers⁶. Beginning in April 2014 public health units in Ontario are required by the Ministry of Health and Long Term Care to implement Preschooler NutriSTEP® as part of the Public Health Funding and Accountability Agreement⁷. Other provinces also use NutriSTEP®, with universal screening for both toddlers and preschoolers in New Brunswick⁸.

Models suitable for NutriSTEP® implementation within public health are a priority. Targeted NutriSTEP® implementation studies using different models in various Ontario sites were conducted with the Preschool NutriSTEP® from 2007-2011⁹. These implementation models included:

- 1) self-referral through a school board kindergarten registration;
- 2) assisted-referral through an established preschool screening program as well as in a new screening program (the Ontario "Best Start" hubs); and,
- 3) screening in Family Health Teams (primary health care settings) in Ontario. Targeted implementation was also conducted in Calgary, Alberta¹⁰.

In the first two models in three diverse Ontario communities and settings, 164 parents were interviewed about their participation in the study and their perspectives on screening and referrals and barriers and benefits. Most parents reported that screening with NutriSTEP® increased nutrition awareness and reminded them about healthy preschool diets and areas to improve⁹. Barriers to seeking referrals included lack of time and lack of information on referral opportunities. In three Family Health Team settings in southern Ontario, interviews conducted with 131 parents/caregivers and with ~20 health care providers determined that nutrition risk screening with NutriSTEP® was feasible and acceptable⁹.

Targeted implementation of NutriSTEP® in preschool immunization clinics was conducted in Calgary in 2008 with over 400 parents of preschoolers who found the questionnaire easy to complete and helpful¹⁰. Managers in these settings felt that NutriSTEP® was easy to implement while clerks and nurses were concerned about additional workload and demands on parents¹⁰.

To learn more about the development of the NutriSTEP® program, see Appendix A.

WHY DO NUTRITION SCREENING FOR YOUNG CHILDREN?

The foods children are offered directly affect their growth and development, health behaviours and academic performance. By the time children are 1 year of age, they begin to have a regular schedule of meals and snacks, and generally follow the advice in Canada's Food Guide¹¹. Eating habits and patterns are established very early in life. Moreover, there is growing evidence that childhood nutrition has a significant impact on health in later life¹. Thus, it has been a priority to seek preventative strategies to improve nutritional status, including nutrition screening¹. Common nutritional issues include:

- Poor growth¹
- Inadequate intake of foods from the four food groups¹²
- Iron deficiency¹
- Unhealthy feeding/eating environments¹³
- Food insecurity¹⁴
- Overweight and obesity¹⁵
- Inactivity¹
- Inappropriate vitamin and mineral supplementation¹
- Picky eating¹⁴

Nutrition risk screening can benefit young children and their families, child and health care providers and communities by:

- Raising awareness and knowledge about healthy eating, healthy weights and physical activity⁹
- Promoting early intervention and decreasing the risk of serious consequences of poor nutrition such as overweight/obesity¹⁶
- Targeting children at risk for further assessment and treatment¹⁷
- Streamlining the referral process¹⁷
- Prioritizing services to those most in need¹⁷
- Identifying the needs in a population group to integrate services and target nutrition programs¹⁸

WHAT IS THE DIFFERENCE BETWEEN NUTRITION SCREENING AND NUTRITION ASSESSMENT?

To determine if a young child has nutrition issues, there are two processes that can be used: nutrition screening and/or nutrition assessment, as summarized in Table 1.

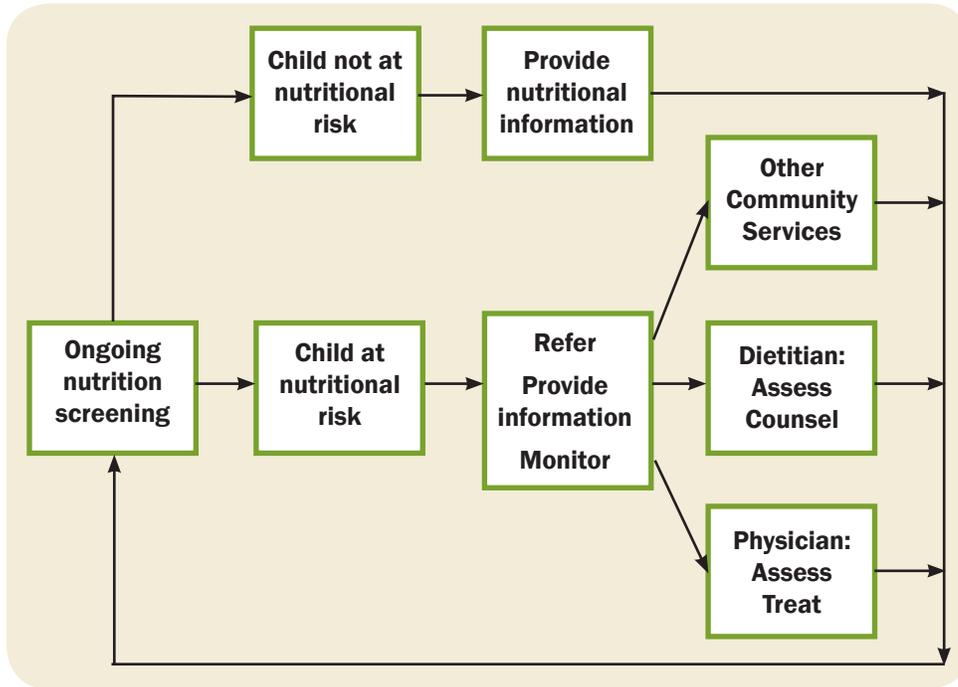
Table 1: Differences between Nutrition Screening and Nutrition Assessment

Nutrition Screening	Nutrition Assessment
For large numbers of toddlers/preschoolers in a community	For small numbers of toddlers/preschoolers who have been identified as having nutrition issues
Nutrition screening using NutriSTEP® can be implemented by community partners with the questionnaires completed by a parent (with or without the assistance of trained volunteers or practitioners). Registered Dietitians can provide guidance to support the nutrition screening and area source for referral for assessment and treatment.	Requires the skills of a Registered Dietitian (or other qualified health care provider).
Purpose is to identify unhealthy risk factor behavior(s) related to nutrition.	Purpose is to assess or clarify a previously identified nutrition issue(s) and/or unhealthy risk factor behaviours related to nutrition. Involves more accurate identification of the issue and recommended course of action. May occur in response to an issue discovered by nutrition screening.
Parents or caregivers of toddlers/ preschoolers who complete NutriSTEP® via a nutrition screening program also receive nutrition education material. Toddlers or preschoolers found to have nutrition issues through screening are referred for assessment and/or to community services.	Parents or caregivers of toddlers/ preschoolers are provided with individual nutrition counselling based on the nutrition assessment of the preschooler. Toddlers or preschoolers and their families may also be referred for a medical assessment or to community services.

Nutrition Screening:

Nutrition risk screening is the process of identifying factors known to be associated with dietary or nutritional issues. Nutrition risk screening is usually non-invasive and can be done with individuals, groups of people or populations. Its purpose is to identify individuals who are at risk of, or who have, poor nutritional status. It is the first step in addressing nutrition issues through further assessment and treatment. Those who are considered to be at high risk for nutrition problems can be referred to appropriate community and/or health services a process known as ‘ethical screening’¹⁷. This process is illustrated in Figure 4.

Figure 4: Ethical Nutrition Screening



This Figure applies to the paper versions of NutriSTEP® questionnaires where a score is generated. Child not at nutritional risk is a score ≤ 25 . Child at nutritional risk is a score ≥ 26 .

For details on children “not at nutritional risk” when, in fact, they are at nutritional risk, please see Appendix A on specificity of NutriSTEP®. Likewise, for details on children screening for “at nutritional risk” when, in fact, they are not at nutritional risk, please see Appendix A on sensitivity of NutriSTEP®. Parents/caregivers completing paper versions are provided with information on what the NutriSTEP® score means. Those completing the Internet versions (Nutri-eSTEP) are provided with extensive feedback.

Screening helps to ensure that those who need a nutrition assessment receive one, and that skilled professionals are best utilized for those individuals who can most benefit from their services. The NutriSTEP® nutrition risk screening questionnaires include questions about factors that specifically affect the nutritional status of toddlers and preschoolers.

Parent Perceptions of Nutrition Risk Screening

In 2011, a study was conducted to determine parent perceptions of screening and referral processes, as well as any perceived barriers to, concerns about, and benefits of screening. Overall, nutrition risk screening using NutriSTEP® was well accepted, as it allowed parents to be reminded about healthy preschool diets and areas to improve; increase their nutrition awareness, motivation, and confidence; and be informed about additional information sources⁹.

Screening programs need to consider parents’ language fluency, literacy level and cognitive ability by providing a flexible environment in which all parents can complete the questionnaire independently or with assistance⁹. In addition, knowing the specific needs of the target population would also enhance the uptake of an ethical screening program¹⁹.

Nutrition Assessment:

Nutrition assessment is a comprehensive approach to determine the nutritional status of a person. It involves medical, nutrition and medication histories, physical examinations, anthropometric measurements (such as weight and height) and laboratory tests. Nutritional assessments are done by qualified nutrition health professionals, such as Registered Dietitians, and require more time and resources to carry out than nutrition screening.

Evidence behind the questionnaires:

The NutriSTEP® questionnaires are Canadian, scientifically valid and reliable screening tools that can identify either toddlers (18-35 months of age) or preschoolers (3-5 years of age) at risk for poor nutrition. The questionnaires are proxy measures and red flags for obesity and unhealthy risk factor behaviours related to nutrition.

The NutriSTEP® questionnaires are appropriate screening tools for toddler/preschool nutrition screening programs because:

- They are specific for either the toddler or preschooler target group^{2,3}
- They are able to differentiate between those who are at risk and those who are not^{2,3}
- They can be implemented in a variety of settings^{9,20}

The educational materials that support the questionnaires have also been updated to reflect the latest healthy eating and physical activity recommendations (see Page 3: Overview of the NutriSTEP® Program, Nutrition Education)

How to obtain the questionnaires:

Licences for the PDF versions of the NutriSTEP® questionnaires are available from a software distribution site (www.flintbox.com). Costs for licences vary depending on the quantities to be printed from the PDF files. Limited quantities of print versions of the Preschool NutriSTEP® are available free of charge to Public Health Units in Ontario through Service Ontario Publications. The Preschool NutriSTEP® is available in eight languages and the Toddler NutriSTEP® is available in three languages. Internet versions of the NutriSTEP® questionnaires that are accompanied with feedback messages for parents/caregivers (Nutri-eSTEP) are available free of charge on the Dietitians of Canada website (www.nutritionscreen.ca).

Who completes the questionnaires:

A child's parent or primary caregiver (the person who is most knowledgeable about the child's eating and other health habits) should complete the questionnaires. Each questionnaire, that takes less than 10 minutes to complete, has 17 questions covering four attributes of nutrition risk. These four attributes, shown below, are believed to influence or reflect the nutrition status of toddlers/preschoolers:

- Food and fluid intake²¹
- Physical growth and development/weight concerns²²
- Factors affecting food intake and eating behaviours such as food security and the psycho-social feeding environment^{23,24}
- Physical activity and sedentary behaviour such as screen time²⁵

OVERVIEW OF THE NutriSTEP® QUESTIONNAIRES

There are questions on the NutriSTEP® questionnaires that can be related to more than one attribute (see Table 2). For example, the number of times a child eats per day is related to food and nutrient intake but could also be based on a parent’s knowledge or attitudes around food and eating (see “Factors affecting food intake and eating behaviours”).

Table 2: NutriSTEP® Question Stems* and Corresponding Attributes

Toddler NutriSTEP® question stems	Preschool NutriSTEP® question stems
Attribute: Food and Fluid Intake	
My child usually eats grain products (question 1) My child usually has milk products (question 2) My child usually eats vegetables AND fruit (question 3) My child usually eats meat, fish, poultry or alternatives (question 4) My child usually eats restaurant or take-out “fast foods” (question 5) My child usually drinks juice or flavoured beverages (question 6) My child is hungry at mealtimes (question 11) My child usually eats meals and snacks [number] times a day (question 12)	My child usually eats grain products (question 1) My child usually has milk products (question 2) My child usually eats fruit (question 3) My child usually eats vegetables (question 4) My child usually eats meat, fish, poultry or alternatives (question 5) My child usually eats “fast food” (question 6) My child is not hungry at mealtimes because he/she drinks all day (question 9) My child usually eats [number] times a day (question 10) My child usually takes supplements (question 13)
Attribute: Physical growth and development	
I am comfortable with how my child is growing (question 16) I think my child: weighs [too little/much] (question 17) My child has problems chewing, swallowing, gagging or choking when eating (question 8)	I am comfortable with how my child is growing (question 16) My child: weighs [too little/much] (question 17) My child has problems chewing, swallowing, gagging or choking when eating (question 8)
Attribute: Factors affecting food intake and eating behaviours	
I have difficulty buying food I want to feed my child because food is expensive (question 7) My child drinks from a baby bottle with a nipple (question 10) My child usually eats meals and snacks [number] times a day (question 12) I let my child decide how much to eat (question 13) My child eats meals while watching TV, or being read to, or playing with toys (question 14)	I have difficulty buying food to feed my child because food is expensive (question 7) My child usually eats [number] times a day (question 10) I let my child decide how much to eat (question 11) My child eats meals while watching TV (question 12)
Attribute: Physical activity and sedentary behaviour	
My child usually watches TV, or uses the computer, or plays video games (question 15)	My child [gets enough/needs more] physical activity (question 14) My child usually watches TV, uses the computer, and plays video games (question 15)

* Question stems are the NutriSTEP® questions without examples or response options

UNDERSTANDING THE NutriSTEP® SCORE AND EXPECTED PREVALENCE RATES FOR NUTRITION RISK

Each NutriSTEP® question has two, three, four or five possible responses with scores from 0 to 4. Parents/caregivers check off which response best suits their child’s typical eating or other habits. Once the questionnaire is completed, the nutrition risk score can be determined by adding the scores for the 17 questions to receive a total score (maximum = 68).

Options for scoring are as follows:

- Parents/caregivers can self-score the questionnaires
- Parent/caregivers can self-score and have the final score checked by an administrator
- Parent/caregivers can have the questionnaire scored by an administrator

The higher the score, the greater the nutrition risk. The total score can be used and is advantageous for some analyses.

Use of all 17 questions will generate a “low”, “moderate” or “high” nutrition risk score. For each risk level, there are guidelines at the bottom of the questionnaire for parents on the next steps in the screening process as shown in Table 3.

Table 3: Meaning of the NutriSTEP® Score and Advice for Implementers

What does your NutriSTEP® score mean?	Advice for Implementers
<p>If the total score is 20 or less (low risk*): “Your child’s eating and activity habits are good. There may be things that you want to work on; check out the educational material provided for tips and more.</p>	<p>Parents/caregivers can be given generic educational nutrition booklets and pamphlets such as “How to Build a Healthy Toddler” and “How to Build a Healthy Preschooler”.</p>
<p>If the total score is 21 to 25 (moderate risk*): “Your child’s eating and activity habits can be improved by making some small changes. Check out the educational material provided for tips. For more information, contact your public health unit.”</p>	<p>For these children, a comprehensive nutrition assessment to confirm risk is not necessary. A variety of community services may meet the educational needs of parents and/or caregivers. These parents/caregivers should be encouraged to contact the local public health unit or community health centre for information about parenting, parent education workshops and social and health programs. Nutrition education materials (pamphlets and booklets) specific to the nutrition issues, for example increasing physical activity, are also appropriate.</p>

(table continued on next page)

UNDERSTANDING THE NutriSTEP® SCORE AND EXPECTED PREVALENCE RATES FOR NUTRITION RISK

Table 3: Meaning of the NutriSTEP® Score and Advice for Implementers (continued)

What does your NutriSTEP® score mean?	Advice for Implementers
<p>If the total score is 26 or greater (high risk*): “Your child’s eating and activity habits can be improved by making some changes. For suggestions, talk to a health professional such as a Registered Dietitian or your family doctor or pediatrician.”</p>	<p>Parents/caregivers should be referred to nutrition professionals such as community or outpatient dietitians for further assessment and treatment. Publicly-funded dietitians may be found at community health centres, family health teams or through outpatient counselling services at community hospitals. In some communities a referral from a physician may be necessary to see a dietitian. It is important to confirm high nutrition risk with a comprehensive nutritional assessment and to follow up with a treatment plan. Some public health units or departments may have a Dial-a-Dietitian service that can provide limited service. In Ontario, the toll-free EatRight Ontario Dietitian Service (1-877-510-510-2) can also be used to speak with a Registered Dietitian. If there are no dietitians in the community, high risk children can be referred to a family doctor or pediatrician for assessment and treatment.</p>

* The terms low, moderate and high risk are not used on the NutriSTEP® questionnaires based on parent feedback. These terms are for use by community professionals.

The cut-points for nutrition risk and the prevalence of risk determined for the NutriSTEP® questionnaires are shown in Table 4.

Table 4: Cut-points for NutriSTEP® Nutrition Risk Categories and Expected Prevalence of Risk

NutriSTEP® Score	Risk	Expected Prevalence*
20 or less	low risk	~55–75%
21 to 25	moderate risk	~11–30%
26 or greater	high risk	~<10–>17%

*Based on a sample of ~ 4,000 toddlers and preschoolers from the first 4 months of the internet version of NutriSTEP® (Nutri-eSTEP) and on implementation research.^{2,3,26,27}

As of 2014, in Ontario, NutriSTEP® has been identified as a Public Health Funding and Accountability Performance Indicator. This indicator reflects two public health unit performance standards: chronic disease prevention and child health. As outlined in the 2008 Ontario Public Health Standards, it is one of the screening tools for which the boards of health shall facilitate access and support, in order to monitor children's growth and development, and provide a contact for families to discuss results and arrange follow-up⁷.

Families play a central role in establishing health behaviours in the early years²⁸. Presence of nutritional risk/issues may reflect distorted parent-child interactions¹⁴. Subsequent interventions that aim to increase parents' nutrition awareness should include: shared responsibility between the intended audience and the health professional to know what, how, and when to address issues and comments; shared knowledge to address misconceptions and explanations in terms that parents can understand; and recognition of diverse cultural beliefs, including the use of words that have different connotations²⁹. Furthermore, parents feeding practices can either facilitate or hinder the success of others who may be involved in a child's development of healthy eating habits, such as child care staff³⁰. Program planners and health professionals have the opportunity to develop strategies related to education, supportive relationships and accessibility to healthy, appealing foods³⁰.

There are a number of things to consider when developing a screening model to implement NutriSTEP® in your community. You will need to choose a setting and referral method, develop a referral map and communicate with referral services, as well as pretest your NutriSTEP® model. This section provides key points in the planning process.

1. Choosing a setting

NutriSTEP® has been implemented in a variety of settings including:

- School board/school kindergarten registration
- Health fairs or screening fairs
- Toddler and preschooler play groups
- Primary health care settings (Family Health Teams)
- Parent education programs

All of these settings are suitable for implementation within Ontario^{9,17}

Appendix B provides different scenarios for nutrition screening.

2. Choosing a referral method

Ethical screening means that individuals identified to be at moderate and high risk are provided with an opportunity for appropriate referrals. The process of identifying a toddler or preschooler at nutritional risk will be dependent on the model and setting of the NutriSTEP® program. There are also different types of referral methods: assisted, guided, and self-referral.

- **The assisted referral method** is where a parent completes and scores NutriSTEP® and then a screen administrator reviews the score and discusses the potential resources to meet his/her needs and follows up by forwarding referrals to the appropriate services.
- **The guided referral method** is where a parent completes and scores NutriSTEP® and then a screen administrator reviews the score with the parent and discusses potential resources to meet his/her needs. It is then the responsibility of the parent to access these resources.
- **The self-referral method** is where a parent completes and scores the tool independently, identifies his/her child's nutrition risk level and makes contact with a service provider as indicated by the scoring guide on the tool. The Nutri-eSTEP platform (www.nutritionscreen.ca) is a self-referral method where relevant and appropriate feedback messages are provided along with links to credible resources and to available dietitian services.

With the assisted or guided referral methods, a screen administrator will be identifying risk and the parent/caregiver will be provided with opportunities to improve his/her child's eating and activity habits. The steps in this process are:

1. Determine the overall NutriSTEP® score.
2. Compare the results with the scoring guide (What does your NutriSTEP® score mean? on page 4) to determine if there is moderate risk (21-25) or high risk (26 or greater).
3. If the toddler or preschooler is at moderate or high risk, discuss with the parent/caregiver(s) what information or resources would help reduce this risk.
4. Assist the family with making connections to community resources and getting referrals; provide contact information.
5. Follow up with the parent/caregivers(s) in a few weeks to see if they received the services, if they encountered any barriers to accessing the services or if new services and resources are needed.
6. Establish the next developmental opportunity for screening.

If the self-referral method is used (e.g., from the distribution of NutriSTEP® questionnaires in kindergarten registration/parent orientation packages, or completion of Nutri-eSTEP), the parent/caregiver would be responsible for making the appropriate connections with the community and health services. These services would then be responsible for following the above steps to support the family.

These processes are called 'ethical nutrition screening', in that not only is the toddler or preschooler screened but the family is provided with opportunities to improve the child's eating and activity habits through the accompanying nutrition educational resources as well as guidance to the most appropriate referrals for the child's risk level.

3. Developing referral mapping and identifying potential referral partners

As part of screening model development, a comprehensive screening and referral process is needed. A data management process can also be considered (see Next steps for the NutriSTEP® Program in Ontario section and Appendix G for information on data management). This explicit planning for how risk can be met with current services in your community is called referral mapping.

To develop a referral map for low, moderate and high risk, consider the 17 questions in NutriSTEP® and the four attributes. This means mapping each of the three risk levels (low, moderate and high) to appropriate services for referral. Children who are screened as low and moderate nutrition risk, and their families should be referred to programs and services that generally focus on healthy child development. Many of these programs and services are also mandated to cover the nutrition in children identified as low and moderate nutrition risk. Children who are screened as high risk (score is 26 and greater), and their families, should be referred to their primary health care provider or a Registered Dietitian for further assessment. It is necessary to communicate with these potential referral services in your community to:

- Discuss the purpose of the NutriSTEP® program
- Determine their referral processes. For example, check with other dietitians in the community to find out about catchment areas, types of common nutrition issues and expected wait times (each referral source should be identified in the referral map these details).
- Discuss the potential increase in service demands as a result of the screening program.

Examples of services that can be included in a referral map are:

- Public health programs and resources (e.g., Healthy Babies Healthy Children Program, professional phone lines, parenting workshops, nutrition fact sheets and booklets)
- Hospital outpatient dietitians
- Family Health Team dietitians
- Community Health Centre dietitians
- Private practice dietitians
- Community Care Access Centre dietitians
- Ontario Early Years programs
- Best Start Hubs
- Community Action Program for Children programs
- Physicians, Nurses
- Specialized children's services (e.g., feeding clinic, allergy clinic, children's weight control clinics, children's mental health, etc.)
- Provincial services such as:
 - EatRight Ontario: www.eatrightontario.ca or 1-877-510-510-2
 - Health Link Alberta: www.myhealth.alberta.ca or 1-866-408-5465 (LINK)
 - Health Link BC: www.healthlinkbc.ca/healthyeating or 8-1-1
 - Dial A Dietitian Manitoba: www.gov.mb.ca/betterhealth/ or 1-877-830-2892

Appendix C contains a number of resources that can be useful in setting up a referral process. These samples need to be individualized for your community.

These resources include:

- A sample introduction document for community consultations (Appendix C1)
- A sample referral map for an Ontario community. A referral map provides a number of referral options for each level of nutrition risk (low, moderate and high risk) and for each of the contributing factors. The map should be individualized for your community (Appendix C2)
- Standardized responses for screen administrators using the assisted referral model. These should accompany the referral map (Appendix C3)
- A sample directory of referral sources and their referral criteria. This directory should also accompany the referral map to assist screen administrators in advising parents on the referral services in your community (Appendix C4)
- A sample referral form to a primary health care provider. The high nutrition risk concerns and corresponding referrals need to be individualized for the nutrition issue(s) and available community supports (Appendix C5)
- A sample feedback form for parents participating in screening models using the assisted or guided referral methods. This form is completed by the screen administrator with recommendations and follow-up actions to be taken by parents (Appendix C6)

4. Pre-testing NutriSTEP® implementation in your community

For each of the proposed settings and referral methods, there are challenges and factors to be considered to ensure success. Therefore, it is important to pre-test screening using the chosen referral method and setting.

Depending on the method and setting chosen, there may be concerns at a number of levels including the parent, screening administrator, the screening site, or screen coordinating agency (e.g., health unit or health centre). Issues can include:

Parents' ability to complete the screening tool. This could include: parents' literacy and numeracy skills; their knowledge of their child's eating and activity habits; and, their comfort level with the topic of nutrition and feeding their child.

Predicted high prevalence of high-risk scores, and high referral rates. Some communities may find that universal screening is difficult because of the potential for the number of high risk children to exceed the service capacity. In such cases, a targeted screening approach may be considered to allow for some capacity while data are collected to advocate for additional support and services.

Acceptance of a referral by the parent. There may be challenges including parent comfort level with the referral and the convenience of the appointment time and location. Further, some parents may question the risk level of their child determined by the NutriSTEP® screen.

Referral process. This includes the length of time on the waiting list to see the service provider.

Evaluation data in the form of feedback can help improve the screening program. Data should be collected from the parent perspective as well as from the screening agency and the programs and services in your community's referral map.

Appendix D provides a sample of surveys for parent feedback and screen administrator feedback.

It is important to be aware of the challenges, successes and key findings to plan an ongoing nutrition screening program in your community.

5. Building capacity for a NutriSTEP® program in your community

A community or service provider interested in implementing a screening program needs to consider the capacity of the community. This may include but is not limited to:

- The training needs of screen administrators
- Reaching those who will benefit from the program (e.g., marketing, communication, access)
- Issues with data collection and management
- Referral maps or a process for ethically meeting the needs of groups identified to be at all levels of nutrition risk
- Sustainability of the screening program so that it becomes a part of routine practice

6. Training needs of screen administrators and toddler/preschoolers service providers

Screen administrators and service providers in the screening and referral process will need to be knowledgeable about general preschool nutrition issues. Nutrition screening in a community with programs that service families of young children (e.g., Ontario Early Years Centres, public health nurses and dietitians) will require screen administrators and front line staff to:

- Understand the nutrition needs of toddlers and/or preschoolers
- Know the key nutrition concerns for these age groups
- Be aware of nutrition education resources available on the topic of toddler and/or preschool nutrition

To help meet these needs, Appendix E provides a number of educational and reference sources to train staff on general toddler and preschool nutrition as well as key educational materials to use with parents and caregivers.

This background information will increase staff knowledge and confidence in addressing the low and moderate nutrition risk concerns which may be expressed by a child's parent following completion of the NutriSTEP® questionnaires.

Service providers who receive high nutrition risk referrals will need to be knowledgeable about general and clinical pediatric nutrition including nutritional and growth assessment, and nutrition concerns for this age (e.g., feeding issues, nutrient deficiencies, gastrointestinal disorders, food allergies and intolerances). They will also need to have counselling skills for working with families and children.

Appendix E also includes a list of resources and references for health professionals including data sources, networks, and other tools.

7. Promoting your nutrition screening program at the individual, agency and community level

To highlight the benefits of nutrition risk screening at the individual, agency and community level, a community approach is necessary. Promotion of a nutrition screening program needs collaboration between:

- Private and government organizations that serve children and their families
- Community service providers
- Young children, their families and caregivers

With collaboration, there can be access to nutrition screening and appropriate assistance to support children at nutritional risk. Collaboration also allows for the identification of gaps in service and discussions to address those concerns.

Appendix F contains a PowerPoint presentation with speaker notes on promoting NutriSTEP®. It can be used to introduce the initiative to a community or with a group of potential partners.

Appendix F also includes templates for a number of promotional materials that can be used with the individuals you are trying to reach with this program. This includes site personnel and health professionals as well as parents of preschoolers.

Data Management

Data management of NutriSTEP® data is also of great importance for determining the status of a community and for monitoring/surveillance of nutritional risk in communities. The need for a data management system for NutriSTEP® was identified in the 2006 Think Tank Report³¹.

The paper versions of NutriSTEP® have scores assigned for responses to each question; the scores for each question are added together to get a total NutriSTEP® score. NutriSTEP® data collected on paper forms need to be entered into a database for subsequent data analysis, requiring considerable resources.

A sample template for data entry into Excel is provided in Appendix G. This template includes both the demographic and NutriSTEP® data.

A data reporting system has been developed by the KFL&A Public Health; the data need to be entered manually into this system. Please contact KFL&A Public Health for further information.

A research grant from CIHR supported a research collaboration between the University of Guelph and Dietitians of Canada, that resulted in the online launch of Nutri-eSTEP at www.nutritionscreen.ca. This online tool provides parents with direct access to the NutriSTEP® screening questionnaires and provides the user with immediate feedback on what's going well and what they need to work on, as well as links to community resources. The responses to the NutriSTEP® questions do not have scores assigned for each question on the Nutri-eSTEP platform. However, Nutri-eSTEP collects some preliminary data from users, as well as their responses to the NutriSTEP® questions. This information is stored as aggregate data in the Nutri-eSTEP system, and provides a potential opportunity for broader, integrated, standardized data collection and reporting. Discussions are underway in 2015 to find the resources to support obtaining the required permissions and defining the data reporting templates that will be valuable for provincial governments, as well as local public health units. The implementation of preschool nutrition screening has become a accountability indicator for Ontario public health units.

Other possibilities for collection of NutriSTEP® data is via tablets through OceanWave software developed by CognisantMD™ (www.cognisantmd.com) that has licences for the NutriSTEP® questionnaires. This tablet application has been primarily designed for use in primary health care. NutriSTEP® data collected on these tablets is inserted directly into Electronic Medical Records (EMR). Data are also stored by CognisantMD™; aggregate data can be made available by agreement between CognisantMD™ and the service provider.

The terms of the licencing agreement for the NutriSTEP® questionnaires do not allow users to post the NutriSTEP® questionnaires on a website as this violates the licence regarding distribution.

Ideally, any type of data management system for use in public health or similar organizational settings should be a coordinated effort in order to have a functional and relevant database for monitoring/surveillance purposes.

SchoolAge NutriSTEP®

The NutriSTEP® Research Team has plans to develop a SchoolAge NutriSTEP® for children 6-11 years of age. This project is pending funding from the Canadian Institutes of Health Research.

Efficacy of Nutrition Risk Screening with NutriSTEP®

A study of the efficacy of NutriSTEP® will be conducted by the NutriSTEP® Research Team in 2015-2016 in which changes in knowledge and behaviour and its psychosocial correlates (attitudes, self-efficacy, intention) will be determined before and after nutrition risk screening with NutriSTEP®.

CONCLUSIONS

Through implementation of a feasible and sustainable NutriSTEP® screening program, there can be universal access to both the tool and its educational resources, and an entry point into the primary health care system where necessary. This could mean greater coordination of services to young children and their families, improved continuity of care between various health care and social services providers, and improved client and provider satisfaction.

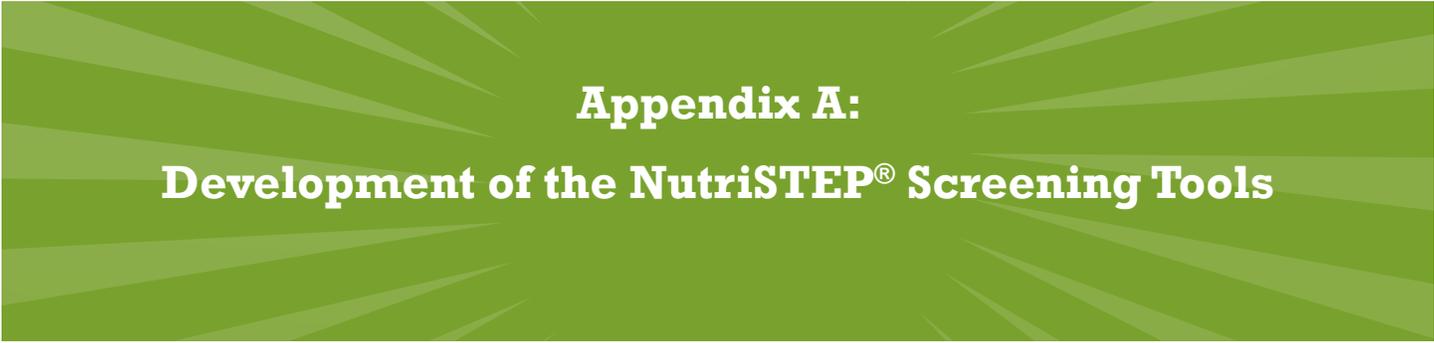
The overall goal of the NutriSTEP® program is to improve the nutritional status of young children. NutriSTEP® provides an excellent basis for a nutrition surveillance system for nutrition risk in young children across Ontario and Canada.

The development of a long-term comprehensive action plan in your community will ensure that all key stakeholders are on board, that financial resources are available to sustain a program over time, and that there is action on the results of nutrition screening for toddlers and preschoolers.

For future information, visit the NutriSTEP® website at www.nutristep.ca

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A horizontal green banner with a radial pattern of lines emanating from the center, creating a sunburst effect. The text is centered within the banner.

Appendix A:
Development of the NutriSTEP® Screening Tools

PRESCHOOL NutriSTEP® DEVELOPMENT

The concept for the original Preschool NutriSTEP® began in 1998 at the Sudbury & District Health Unit. With the involvement of the University of Guelph, its development went through a number of phases. The phases are shown in Figure 1. The development is described in a published manuscript¹.

Feasibility phase (1998-2000)

Extensive literature searches and national nutrition and pediatric consultations were undertaken to identify the key preschool nutrition issues: physical growth, food and nutrient intake, physical activity and sedentary behaviour, and the factors affecting food intake and eating behaviour (e.g., food security, feeding environment). An initial 27-item screening tool was developed focusing on these factors.

A pilot feasibility study in Sudbury using the initial tool found that 3 of 37 (8%) preschool children had significant nutrition issues (e.g., growth failure, suspected iron deficiency anemia, food intolerances, infantile vitamin D deficiency, chronic constipation) and required follow-up with their primary health care providers. Another 46% had some nutritional concerns and received written and verbal nutrition advice. Identification of children with serious nutrition concerns highlighted the potential impact of such a screening tool.

Phase I—Sudbury tool refinement (2001)

A second draft of the tool was given to 180 parents at a school readiness fair to ensure that parents could complete the tool independently. Key intercept interviews (n=121) focused on modifying the tool's wording and length.

Phase IIA—Ontario tool refinement (2002– 2003)

A 25-item tool was tested with 19 ethnically diverse parent focus groups (n=300), in English and French, across Ontario. This work involved: (1) the perception of nutritional risk as influenced by ethnicity; and, (2) determining if items were written in plain language so that the Preschool NutriSTEP® would be appropriate with Canadians where one of the two official languages (English and French) was a second language. Parents and children from different cultural groups from across Canada, such as First Nations, Chinese, Vietnamese, Middle Eastern and European, assisted with question wording.

Phase IIB—National tool refinement (2002– 2004)

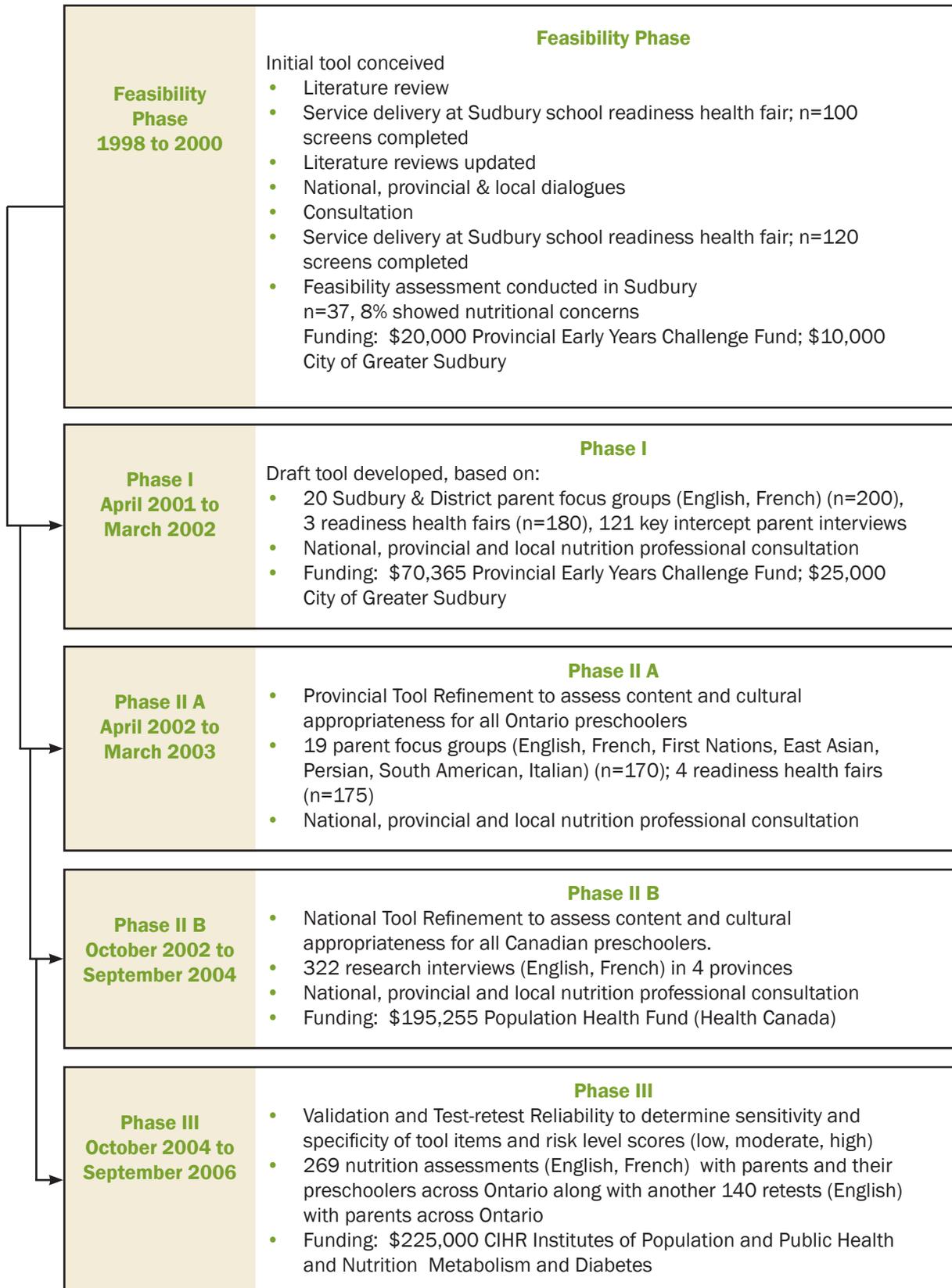
A 19-item tool was used in 322 key informant parent interviews (English and French), with eight trained registered dietitians from four provinces (Ontario, New Brunswick, Manitoba and British Columbia). This work resulted in a tool that was pre-tested in Spring 2004 (n=81, English and French) with a final validation version in Fall 2004. This phase also included the evaluation of a NutriSTEP® educational resource ("How to Build a Healthy Preschooler").

Phase III—Validation (2004–2006)

Almost three hundred (n=269) Ontario (English and French) parents completed the 17-item tool while a clinical assessment of nutritional risk for their preschooler was conducted by one of three trained dietitians. Another 141 parents completed the tool on two separate occasions to test reliability. It was found that the parents' responses for all 17 questions were comparable to dietitians' assessments and predictive of nutritional risk in a preschool child. This comparison identified that NutriSTEP® could correctly identify children at low, moderate and high risk for nutrition problems. A valid and reliable screening tool in English and French was finalized in September 2006 and was released in 2008.

1. Randall Simpson, J., Keller, H., Rysdale, L., & Beyers, J. (2008). Nutrition Screening Tool For Every Preschooler (NutriSTEP™): Validation And Test-retest Reliability Of A Parent-administered Questionnaire Assessing Nutrition Risk Of Preschoolers. *European Journal of Clinical Nutrition*, (62), 770-780.

FIGURE 1: DEVELOPMENT OF PRESCHOOL NutriSTEP®



TODDLER NutriSTEP® DEVELOPMENT

Following the release of the original Preschool NutriSTEP® in 2008, there were requests for a version for younger children. The development of the Toddler NutriSTEP® is shown in Figure 2. The development of the Toddler NutriSTEP® is described in a manuscript that has been accepted for publication².

Phase A

A comprehensive literature review was conducted to determine if there were any other toddler nutrition risk screening questionnaires available and to determine issues relevant for toddlers that were not on the Preschool NutriSTEP®. Six focus groups with 48 parents were held in both southern and northern Ontario with a wide variety of parents/caregivers of toddlers. Content for a Toddler NutriSTEP® was reviewed with 13 registered dietitians with pediatric expertise. A draft questionnaire with 19 questions was developed.

Phase B

The draft Toddler NutriSTEP® was refined with key intercept interviews with 107 parents from Sudbury, Thunder Bay and Guelph and vicinity in order to ensure that wording of question stems and response options were understandable and appropriate. The feedback was used by the NutriSTEP® research team to finalize the draft Toddler NutriSTEP® (17 questions) for the reliability and validation phases.

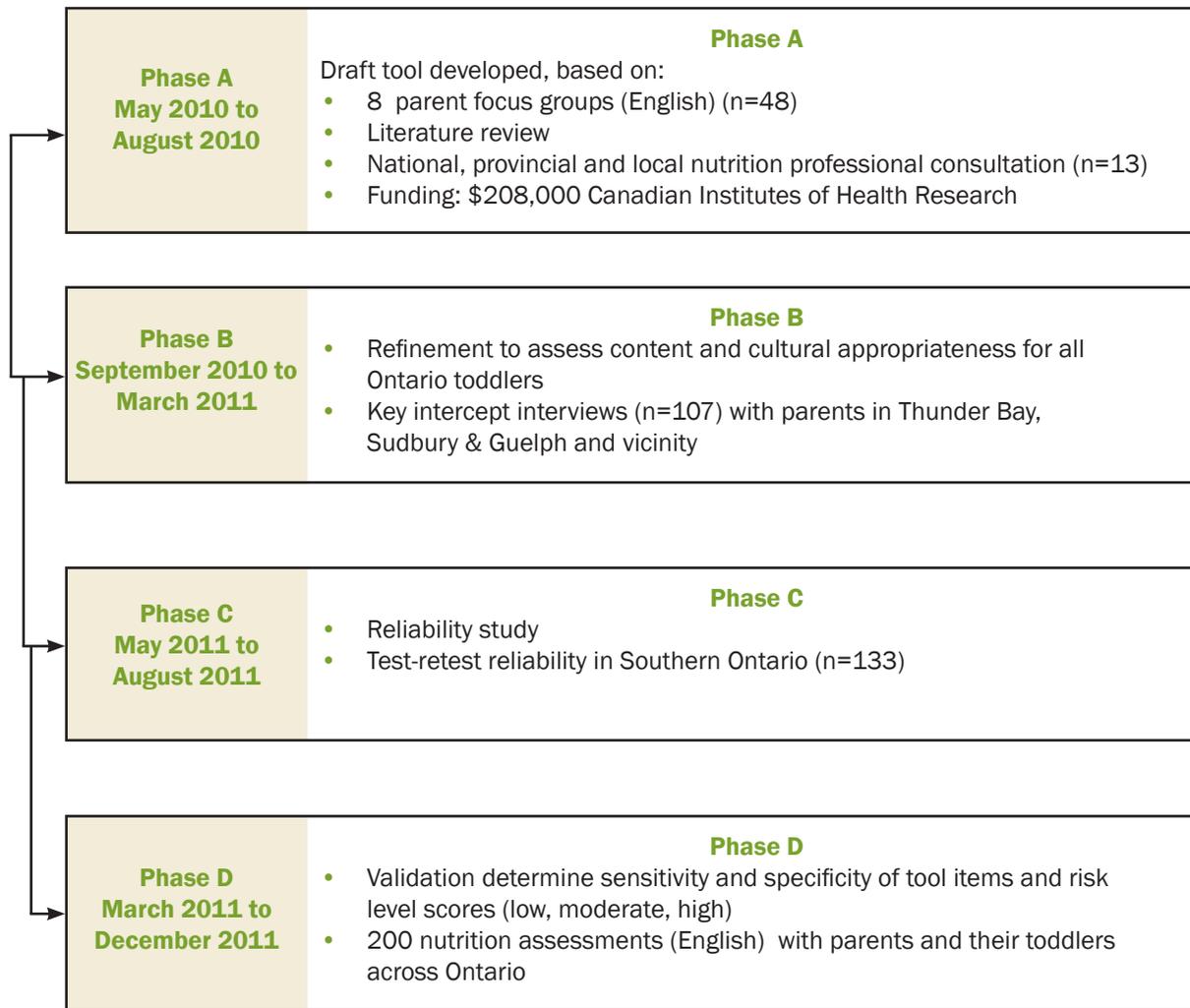
Phase C

The draft Toddler NutriSTEP® was administered to 133 parents of toddlers on two separate occasions, separated by ~2 weeks in order to ensure that the questionnaire could be completed with the same results on two separate occasions. The draft Toddler NutriSTEP® was determined to be reliable.

Phase D

Clinical assessments of 200 toddlers were conducted by a single dietitian and their parents/caregivers completed the draft Toddler NutriSTEP®. It was found that the parents' responses for all 17 questions were comparable to dietitians' assessments and predictive of nutritional risk in a toddler. This comparison identified that NutriSTEP® could correctly identify children at low, moderate and high risk for nutrition problems. A valid and reliable Toddler NutriSTEP® in English and French was released in 2012.

FIGURE 2: DEVELOPMENT OF TODDLER NutriSTEP®



VALIDITY OF NutriSTEP® QUESTIONNAIRES

Validity refers to the extent to which a measure or tool accurately represents what it is supposed to. There are several types of validity:

1. Face and Content Validity. This is the clarity and completeness of the content of a tool. This means the NutriSTEP® items (questions and responses) are relevant to what is being measured, which is nutrition risk in young children. This type of validation was carried out during the first three phases of the Preschool NutriSTEP® project (Feasibility, Sudbury, Ontario and National Tool Refinement) and Phases A and B in the Toddler NutriSTEP® project. This included a critical review of the tool content through literature searches and consultations with nutrition and pediatric experts to ensure that items were relevant to this age group and that it included important deciding factors for identifying risk. As these are parent-administered questionnaires, parents were also involved to ensure that their concept of risk was included and that wording was appropriate.

2. Construct Validity. This is whether the measure correlates with other health or social measures that should be associated with nutrition risk. During the feasibility and validation phases, the characteristics of parent participants (e.g., their education level, income, etc.) were collected. As expected from previous work and the literature, there were differences in NutriSTEP® scores across these characteristics.

3. Criterion Validity. This is whether the measure correlates with a 'gold standard' measurement of nutrition status. There is no true 'gold standard' for nutrition. The best alternative is the clinical judgment of a Registered Dietitian (RD) whose skill and experience guide the determination of risk. For the Preschool NutriSTEP® questionnaire, this validation took place in Phase III, and in Phase D for the Toddler NutriSTEP®, where the scores of the parent-completed NutriSTEP® were compared to the dietitians' ratings of the child's nutritional risk based on dietary, clinical, medical and anthropometric data. For more information, see validation study³.

The tool scores and registered dietitians' ratings were found to be correlated. In other words, the parents and registered dietitians had similar scores, suggesting that parents can accurately screen their toddler and/or preschooler to determine nutritional risk. It was also found that all 17 questions on the tool were predictive of nutritional risk between parents' scores and dietitians' assessments and were worthy of keeping in NutriSTEP®.

3. Randall Simpson, J., Keller, H., Rysdale, L., & Beyers, J. (2008). Nutrition Screening Tool For Every Preschooler (NutriSTEP™): Validation And Test-retest Reliability Of A Parent-administered Questionnaire Assessing Nutrition Risk Of Preschoolers. *European Journal of Clinical Nutrition*, (62), 770-780.

SENSITIVITY AND SPECIFICITY OF NutriSTEP®

To determine low, moderate and high risk scores for the tool, appropriate cut-points are needed. Sensitivity and specificity for each possible cut-point indicate how good the scores are for differentiating level of risk.

The sensitivity of a scale or index refers to the statistical likelihood that it will correctly identify individuals with the condition of interest. The specificity of a scale or index refers to the statistical likelihood that it will correctly identify individuals who do not have the condition of interest. In the case of nutritional screening, the higher the specificity of the index, the more likely it will correctly identify individuals who are genuinely not at risk. Preferably, screening tools have high sensitivity and specificity, but there is typically a trade-off of higher sensitivity and lower specificity. In the case of nutritional screening, the higher the sensitivity of the index, the more likely it will correctly identify individuals who are genuinely at risk. However, specificity decreases with the higher scores. For a screening instrument, a lower value for specificity is acceptable as you would rather err on the side of identifying potentially at risk children rather than missing children who may require further services.

Also as the NutriSTEP® score increases, the prevalence of risk decreases and we have fewer ‘false positives’. Sensitivity and specificity are influenced by prevalence and thus the notable differences between the preschooler and toddler versions of the tool.

Ideally a questionnaire will have both a high sensitivity (SN) and specificity (SP). For the NutriSTEP® questionnaires, the SN and SP for the various cut- points are:

Cut-point	Sensitivity (SN)	Specificity (SP)
Score is 21 to 25 (moderate risk)	Toddler: 71-86% Preschool: 53-69%	Toddler: 61-71% Preschool: 69-79%
Score is 26 or greater (high risk)	Toddler: 83-95% Preschool: 84-92%	Toddler: 43-63% Preschool: 36-46%

RELIABILITY OF NutriSTEP® QUESTIONNAIRES

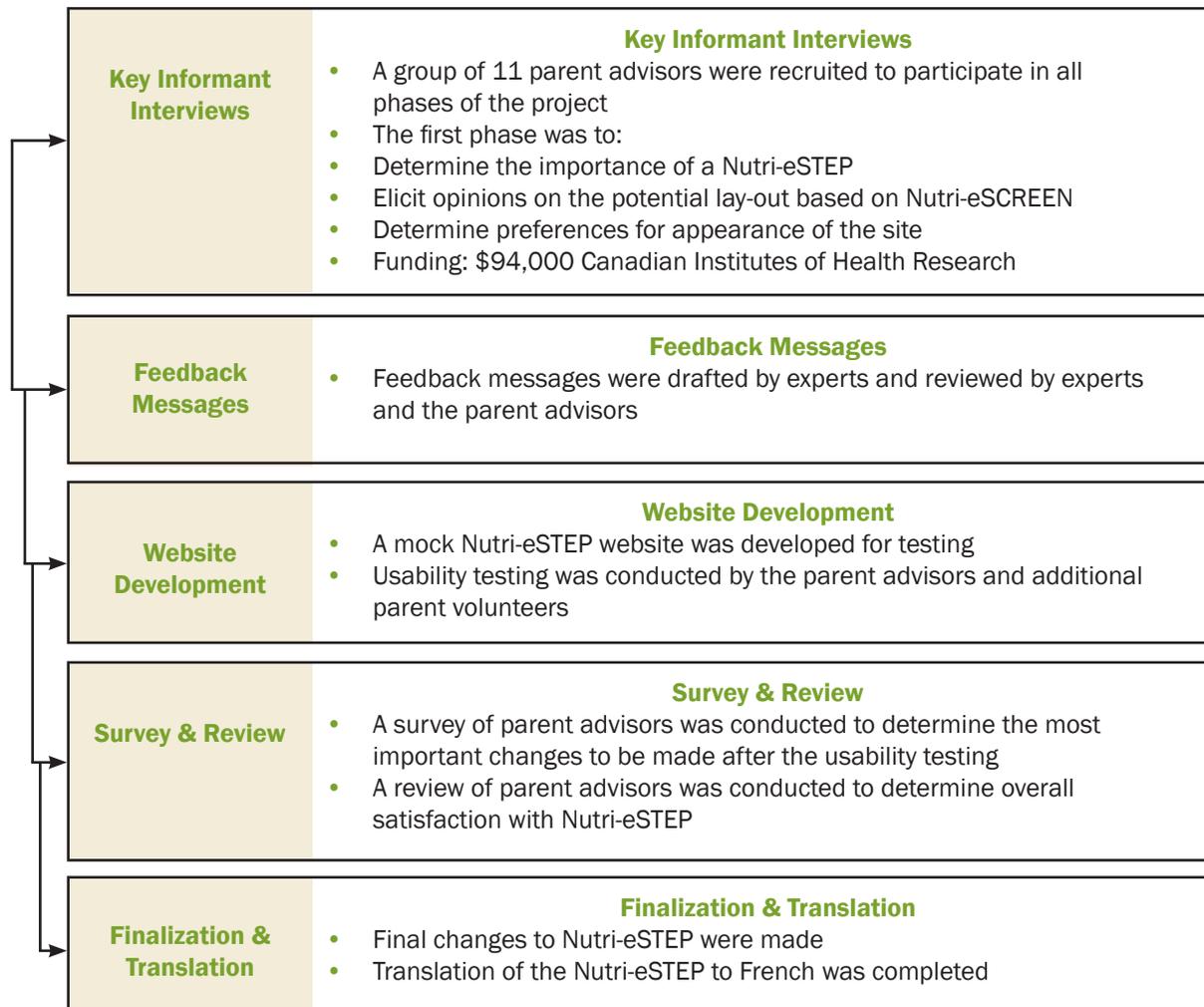
Reliability refers to the extent to which a measure or tool yields similar results over repeated trials or uses (i.e., the trustworthiness of the tool). There are several types of reliability. Test-retest reliability determines an agreement of a self-administered measure completed by the same person on two or more occasions. This was used for both the Toddler and Preschool NutriSTEP® questionnaires and the scores were found to be reliable between tests^{1,2}.

Nutri-eSTEP DEVELOPMENT

Since October 2013, parents have free online access to NutriSTEP® screening (English & French) on the Dietitians of Canada (DC) website (www.nutritionscreen.ca) as Nutri-eSTEP. In order to increase accessibility to the NutriSTEP® questionnaires, the NutriSTEP® research team collaborated with DC to adapt the NutriSTEP® questionnaires for Internet use. The design, navigation, comprehensive feedback messages, and functionality of the site was built using guidance from key informant interviews, a parent test group, and a national RD and health professional advisory committee. Nutri-eSTEP is reliable compared to the paper versions⁴. Parents complete the online questionnaire and then, based on their responses to the questions, they receive immediate feedback dichotomized into ‘What is Going Well’ (no risk) OR ‘What to Work On’ (risk). Feedback messages are available for each question in addition to a ‘Learn More’ section. Links to trusted and credible resources are also on the website as well as links to provincial dietitian services.

The Nutri-eSTEP site was modelled after the Nutri-eSCREEN® site for community-living older adults. A webinar on the development of Nutri-eSTEP can be found at www.nutritionrc.ca

FIGURE 3: DEVELOPMENT OF Nutri-eSTEP



4. Carducci, B., Reesor, M., Haresign, H., Rysdale, L., Keller, H., Beyers, J., Paquette-Duhaime, S., O'Connor, A., & Randall Simpson, J. (2015). NutriSTEP® is reliable for internet and onscreen use. *Canadian Journal of Dietetic Practice and Research*, 76(1), 9-14.



Appendix B:
Scenarios for Implementation of NutriSTEP®

The following scenarios are examples of nutrition screening models using different referral methods and settings:

SCENARIO A

Model: Kindergarten orientation events

Method: Self-referral

Setting: School

Description:

All public and Catholic schools in the Region host 'Welcome to Kindergarten' orientation events in April/May for families with children who will be starting kindergarten the following September. Each year, public health arranges with the school boards for the schools to distribute the Preschool NutriSTEP® and *How to Build a Healthy Preschooler*. Each school receives copies of the questionnaire and the factsheet for families, as well as an order form for translated questionnaires and a Nutri-eSTEP flyer. At the orientation events, families are provided with a copy of NutriSTEP® and a factsheet along with an Early Years calendar created by public health and the school boards. Parents complete the NutriSTEP® screen on their own or with assistance from a teacher, translator or public health nurse upon request. Parents follow the instructions on the back of the questionnaire for next steps.

KEY CONSIDERATIONS:

- Reasonable cost for human resources due to the self-referral method
- Reaches a large number of three to five year olds due to the self-referral method and partnerships with the school boards
- No need to recruit or train screening facilitators
- Most parents are able to self-complete and score NutriSTEP® independently
- Parents feel positive about receiving NutriSTEP® through the school and like that they are able to take the questionnaire home to complete.
- No mechanism for follow-up
- Not able to collect data

SCENARIO B**Model:** Pre-kindergarten orientation days**Method:** Guided referral**Setting:** School**Description:**

Program dates are identified between January and June for pre-kindergarten orientation days in collaboration with local school boards and schools based on the interest and staff capacity to support. A Public Health Nurse attends the first of three sessions to provide information on healthy lifestyles. A Public Health Dietitian accompanies the nurse to offer NutriSTEP® screening to all preschoolers in attendance. Standard resource packages, additional targeted resources, nutrition education and guided referrals to community Registered Dietitians and other health care practitioners, are provided for further consultation and support. Screens are collected with consent to share data for research purposes. The parent/caregiver is provided a feedback form to retain as a summary of screen results and is provided to health care professionals if referral is recommended. No follow up contact is made with parent/caregiver after screen collection.

KEY CONSIDERATIONS:

- Reasonable cost
- Potential for wide reach within preschool population
- Opportunity to connect children at risk of poor health outcomes with community and public health services
- Cohesive partnership with schools and public health unit
- Provides annual comparable surveillance data for preschool population
- Lack ability to determine/track referral uptake
- Facilitator training required for consistent resource coordination and referral support
- Reliance on parents to access referral supports
- Feasibility of data collection and entry using paper screens

SCENARIO C**Model:** Electronic Medical Record (EMR) NutriSTEP®**Method:** Assisted referral**Setting:** Primary Care**Description:**

Caregivers complete the NutriSTEP® questionnaire via email or on a tablet in the waiting room, in advance of the 18-month well-baby or 4-year immunization visits with primary care. Data collection is made feasible through OceanWave™ software. At this time the caregiver consents to having their results, stripped of any identifying information, forwarded to the health unit to inform future health unit programming. NutriSTEP® responses are automatically uploaded to the client's electronic medical record, which yields a customized key message sheet, showing what is going well and what can be improved. During the appointment the primary care provider reviews results and key messages with the caregiver, and uses a referral map created by the health unit to refer to the appropriate services. If a dietitian is on staff at the primary care office (for example in a Family Health Team), the client can be referred within their practice, according to the process outlined in the referral map.

KEY CONSIDERATIONS:

- OceanWave™ software is PHIPA compliant and is compatible with any electronic medical record system
- Results are uploaded directly to the electronic medical record with automated scoring and cut-points, allowing administrative efficiency
- A customized key message sheet is automatically created for each parent. Primary care provider is made aware of potential nutritional concerns before they worsen or manifest into more complex issues
- Once implemented there is minimal administrative support
- Anonymous, aggregate data are transmitted directly to the health unit
- Requires electronic medical records in the primary care setting
- Cost sharing agreement with the primary care provider and health unit must be developed

SCENARIO D**Model:** Parent and Child Drop-in Playgroup**Method:** Guided and Assisted Referral**Setting:** Ontario Early Years Centre/Best Start Hub**Description:**

During scheduled screening events, parents with toddlers and/or preschoolers are invited to complete the NutriSTEP® questionnaire. Screen administrators (trained registered nurses and registered dietitians from the health unit) provide interested parents with a screening package containing the NutriSTEP® questionnaire, nutrition education material and a consent form (to collect anonymous questionnaire results and complete follow-up survey). Once the questionnaire is completed, screen administrators determine the child's score and risk level, and discuss the results with the parent. They also provide nutrition education for identified areas of concern, provide additional resources, and encourage appropriate follow-up and referrals as needed. It is the responsibility of the parent to follow up with recommended services; however, if a child has a high score and no health care provider, screen administrators are able to make direct referrals to a Registered Dietitian in the community. Consenting parents are called approximately six weeks after the screening event, by the screen administrators, and asked questions from the Participant Follow-Up Form (Appendix D). Data are collected (individual question scores and total scores) for surveillance purposes, as this helps inform future public health programming.

KEY CONSIDERATIONS:

- Childcare is not required (children can play while parents complete questionnaire)
- Convenient place to reach parents
- Comfortable and familiar location for parents
- Strengthened partnership with Best Start Hub/Early Years Centre
- Busy/distracting environment at times which can make it difficult to discuss results
- Large variability in attendance (often small numbers of parents)

SCENARIO E**Model:** Junior kindergarten classes**Method:** Self-referral**Setting:** School (Junior Kindergarten classrooms)**Description:**

Every spring, a Public Health Dietitian creates letters for principals, teachers and parents to explain the NutriSTEP® program. Directors from each school board approve the letters. Public health nurses, each assigned several schools, collect registration numbers for junior kindergarten classes. Public health volunteers assemble parent and school packages to match registration numbers. Parent packages include: one NutriSTEP® screen, How to Build a Healthy Preschooler, and a parent letter. School packages include a principal letter, and several teacher letters (1 per 30 junior kindergarten students). School board couriers deliver NutriSTEP® packages to each school. Parents are instructed to follow-up based on the instructions on the back of the screen.

KEY CONSIDERATIONS:

- Widespread distribution
- Increased public awareness of the screening program
- No notable increase in demand for RD services offered by phone through public health
- High cost for public health, relative to other models, attributable to printing letters, screens and resources
- Inherent nature of self-referral model does not allow for tracking of whether screens are completed or self-referrals are made
- Despite the fact that the parent letter explicitly states the screen does not need to be returned to public health or to their child's school, schools and public health receive completed screens on occasion; storage and retention policies need to be followed for these screens and appropriate follow-up provided to those with high-risk scores.

SCENARIO F

Model: Screening Clinics

Method: Guided and Assisted referrals

Setting: Community Agencies implement

Description:

Public Health Nurses promote NutriSTEP® to their community partners and work with them to plan screening clinics. Screening clinics can include developmental, hearing, dental and NutriSTEP® screening. Community Partners plan outreach activities, register clients and host the screening clinic. Public Health Nurses provide the NutriSTEP® screens and nutrition handouts for the screening clinic. Public Health Nurses and/or trained community partners screen families using NutriSTEP® and provide nutrition information and relevant print resources based on the child's score. Family are offered referral support to appropriate services or for further assessment.

KEY CONSIDERATIONS:

- In-kind support provided by Public Health (planning clinic, staffing and print resources)
- Strong collaboration with community
- Consistent resource coordination and referral support
- Trained facilitators to provide screening and nutrition information
- Parents receive immediate information on child's nutrition concerns
- Parents have one on one interaction with professionals

SCENARIO G**Model:** 18-month well-baby visit**Method:** Guided referral**Setting:** Family Health Team**Description:**

Parents receive a resource package at the time of their 18-month well-baby appointment. In this package are resources related to nutrition, physical activity, and a Toddler NutriSTEP® questionnaire. Parents complete NutriSTEP® while in the waiting room. Screens are reviewed by nurse practitioners or medical residents. Clients are provided suggestions by the professional reviewing the screen results, related to questions with high-risk responses. Responses are standardized through the NutriSTEP® Toddler Key Messages resources for professionals embedded in the Family Health Team's (FHT) electronic medical record (EMR). Those with moderate-risk and high-risk total scores are referred to the FHT. Completed screens are scanned into the EMR after each appointment. Parents take the original NutriSTEP® questionnaire home.

KEY CONSIDERATIONS:

- Adding NutriSTEP® to existing 18-month well-baby visit
- Formal policy for NutriSTEP® at the FHT ensures standardized approach and easier orientation to the screening process for new staff
- Diverse team enables program facilitation (Clinical Program coordinator, Data Analyst, RD, reception, administrators)
- Parents complete three screens prior to the 18-month well-baby visit
- Low-referral uptake by moderate-risk and high-risk clients, to see dietitian, for moderate- and high-risk clients
- Discrepancies between responses provided in NutriSTEP® compared with the Rourke Baby Record

SCENARIO H

Model: 18-month well-baby visit

Method: Guided referral

Setting: Family Health Team

Description:

Nurses complete the Toddler NutriSTEP® questionnaire with parents/caregivers prior to routine 18-month well-baby visits. If identified as low risk, the parents/caregivers are provided with an education package and can choose to book follow-ups if desired. If moderate risk, parents/caregivers are offered a referral to the Family Health Team dietitian and follow-up with a nurse in three months. High risk referrals are automatically referred to the Family Health Team dietitian for an assessment. When referred, they are recommended to follow-up with a nurse in three months..

KEY CONSIDERATIONS:

- Reasonable cost
- Not a large need for Registered Dietitian services for follow-up
- Targeting a large number of toddlers
- Providing nutrition education and screening at an early age
- Time restraints
- Poor compliance for follow-ups

C1: Introduction Document for Community Consultations**What is NutriSTEP®?**

NutriSTEP® stands for **Nutrition Screening Tool for Every Preschooler** and is the original acronym that continues to be used, with the new tagline: **Nutrition Screening for Toddlers and Preschoolers**.

NutriSTEP® is a fast and simple way to screen for eating habits and identify nutrition issues in children. It includes valid and reliable questionnaires that can differentiate between toddlers and preschoolers who are at nutrition risk and those who are not. The questionnaires are intended to be completed by parents, usually under the guidance of community professionals. The term ‘nutrition risk’ is meant to be used by community professionals. NutriSTEP® research suggested that, for parents, other terms such as ‘what is going well’ and ‘what to work on’ are more appropriate (J. Randall Simpson, personal communication, June 2015).

Evidence clearly shows that poor nutrition in young children can lead to many negative outcomes such as failure to thrive, obesity, anemia, restrained eating, poor eating habits that become lifelong, lack of school readiness, and inability to learn at school¹.

Until recently, there was no clear way to quickly identify nutrition problems or nutrition risk in young children. In 2008, the Preschool NutriSTEP® was released for children 3-5 years of age²; in 2012, the Toddler NutriSTEP® for younger children (18-35 months of age) was released³. Both questionnaires are valid and reliable; they were developed and refined with multicultural and geographically diverse groups of parents and their young children from across Ontario and Canada²⁻³. There were focus groups, child health screening fairs, research interviews, and child nutrition assessments with numerous cultural groups including Aboriginal, East Asian, Persian, South American, and Italian. Parents participated from Northern and Southern New Brunswick, Southwestern, Central and Northern (Sioux Lookout, Manitoulin Island, Sudbury) Ontario, Northern Manitoba and Southern British Columbia. The original Preschool NutriSTEP® was developed concurrently in both English and French and has been translated into six other commonly used languages in Canada (Traditional Chinese, Simplified Chinese, Punjabi, Spanish, Tamil, and Vietnamese). The Toddler NutriSTEP® was developed in English; translations in French and Spanish are also available. Each questionnaire takes less than 10 minutes for a parent/caregiver to complete, and both have been designed for administration in a variety of settings, with or without assistance for completion.

Why do nutrition screening?

The foods children are offered directly affect their growth and development, health behaviours and academic performance. By the time children are 1 year of age, they begin to have a regular schedule of meals and snacks, and generally follow the advice in Canada’s Food Guide¹¹. Eating habits and patterns are established very early in life. Moreover, there is growing evidence that childhood nutrition has a significant impact on health in later life¹. Thus, it has been a priority to seek preventative strategies to improve nutritional status, including nutrition screening¹. Common nutritional issues include:

- Poor growth¹
- Inadequate intake of foods from the four food groups¹²
- Iron deficiency¹
- Unhealthy feeding/eating environments¹³
- Food insecurity¹⁴
- Overweight and obesity¹⁵
- Inactivity¹
- Inappropriate vitamin and mineral supplementation¹
- Picky eating¹⁴

Nutrition screening can benefit young children and their families, child and health care providers and communities by:

- Raising awareness and knowledge about healthy eating, healthy weights and physical activity⁹
- Promoting early intervention and decreasing the risk of serious consequences of poor nutrition such as overweight/obesity¹⁶
- Targeting children at risk for further assessment and treatment¹⁷
- Streamlining the referral process¹⁷
- Prioritizing services to those most in need¹⁷

What is the difference between nutrition screening and nutrition assessment?

Screening is a form of early detection. To determine if a toddler/preschooler has nutrition problems there are two methods: nutrition screening or nutrition assessment. Table 1 shows the differences between screening and assessment.

Table 1: Differences between Nutrition Screening and Nutrition Assessment

Nutrition Screening	Nutrition Assessment
For large numbers of toddlers/preschoolers in a community	For small numbers of toddlers/preschoolers who have been identified as having nutrition issues
Nutrition screening using NutriSTEP® can be implemented by community partners with the questionnaires completed by a parent (with or without the assistance of trained volunteers or practitioners). Registered Dietitians (or other qualified health care provider) can provide guidance to support the nutrition screening and area source for referral for assessment and treatment.	Requires the skills of a Registered Dietitian (or other qualified health care provider).
Purpose is to identify unhealthy risk factor behavior(s) related to nutrition.	Purpose is to assess or clarify a previously identified nutrition issue(s) and/or unhealthy risk factor behaviours related to nutrition. Involves more accurate identification of the issue and recommended course of action. May occur in response to an issue discovered by nutrition screening.
Parents or caregivers of toddlers/ preschoolers who complete NutriSTEP® via a nutrition screening program also receive nutrition education material. Toddlers or preschoolers found to have nutrition issues through screening are referred for assessment and/or to community services.	Parents or caregivers of toddlers/ preschoolers are provided with individual nutrition counselling based on the nutrition assessment of the preschooler. Toddlers or preschoolers and their families may also be referred for a medical assessment or to community services.

Nutrition Screening

Nutrition risk screening is the process of identifying factors known to be associated with dietary or nutritional issues. Nutrition risk screening is usually non-invasive and can be done with individuals, groups of people or populations. Its purpose is to identify individuals who are at risk of, or who have, poor nutritional status. It is the first step in addressing nutrition issues through further assessment and treatment. Those who are considered to be at high risk for nutrition problems can be referred to appropriate community and/or health services a process known as 'ethical screening'¹⁷. This process is illustrated on page 6 of the NutriSTEP® Implementation Toolkit.

Screening with NutriSTEP®: Risk Levels, Scores and Expected Prevalence Rates

Using NutriSTEP®, there are three levels of nutrition risk: low, moderate and high. For each risk level, there are guidelines for parents/caregivers on the next steps:

- Low risk: There are no immediate concerns.
- Moderate risk: Parents should contact their health unit or health centre for additional information such as parenting classes, etc.
- High risk: Parents should follow-up with their primary caregiver such as their family doctor or pediatrician for further assessment, treatment and referral. In communities where an outpatient dietitian is available, referrals to this professional are the preferred option for addressing nutrition risk in these children.

The following cut-points or risk scores and prevalence of risk were determined for NutriSTEP®

NutriSTEP® Score	Risk	Expected Prevalence*
20 or less	low risk	~55-75%
21 to 25	moderate risk	~11-30%
26 or greater	high risk	~<10->17%

* For more information, see Introduction, Table 4

Screening and Referral Models

There are different types of referral methods: guided referral, assisted-referral and self-referral.

1. *The guided referral model* is where a screen administrator reviews the score with the parent and discusses potential resources to meet their needs. It is then the responsibility of the parent to access these resources.
2. *The assisted referral model* is where a screen administrator reviews and identifies nutrition risk, discusses the concerns with the parent and refers them to recommended services.
3. *The self-referral model* is where a parent scores the tool independently, identifies their child's risk level and makes contact with providers as indicated by the scoring guide on the tool.

Note: the self-referral model is also available online on the Dietitians of Canada website

(www.nutritionscreen.ca) where the questionnaires are available along with appropriate feedback messages based on the response to each question (Nutri-eSTEP). Links to credible nutrition education resources are also provided as well as contact information for provincial dietitian services.

Ethical Nutrition Screening

Ethical screening means that individuals identified to be at moderate and high risk are provided with an opportunity for appropriate referrals. Identifying a toddler/preschooler at nutrition risk will be dependent on the model and setting of the NutriSTEP® program. With the guided or assisted referral models, a screen administrator will be identifying risk and the family will be provided with opportunities to improve their child's eating and activity habits. The steps in this process are:

- 1) Determine the overall NutriSTEP® score;
- 2) Compare the result with the scoring guide to determine if there is risk;
- 3) If the toddler/preschooler is at risk, discuss with the parent(s) what information or resources would help them reduce this risk;
- 4) Assist the family with making connections to community resources and to getting referrals; provide contact information; and,
- 5) Follow-up with the parent(s) in a few weeks to see if they received the services, if they encountered any barriers to accessing the services, or if new services and resources are needed.

If the self-referral model is used, the parent will be responsible for making the appropriate connections with their community and health services. These services will then be responsible for following the above steps to support the family.

These processes are called 'ethical nutrition screening', in that not only is the toddler/preschooler screened but the family is provided with opportunities to improve their child's eating and activity habits through the accompanying nutrition educational resources as well as guidance to the most appropriate referrals for their child's risk level.

In studies of implementation models in various settings including self-completion via kindergarten registration packages, screening fairs, drop-in centres and in primary health care settings (Family Health Teams in Ontario), parents have found the NutriSTEP® questionnaire to be helpful and the educational materials to be informative.

Implementation and Evaluation

To plan implementation and evaluation of a nutrition screening program, a community approach is necessary. This includes promoting with collaboration from various sectors including: private and government organizations that serve children and their families; community service providers; and young children, their families and caregivers.

With collaboration, there can be access to nutrition screening and assistance to support children at nutritional risk with the appropriate referrals and services. Collaboration also allows for the identification of gaps in service and discussions to address those concerns.

Referral Mapping

As part of screening model development, a comprehensive screening, referral and data management process is needed. This explicit planning for how risk can be met with current services in the community is called referral mapping. Nutrition risk referral maps are a process for ethically meeting the needs of groups identified to be at:

- Low risk: no nutrition problems/concerns
- Moderate risk: some nutritional problems/concerns
- High risk: requires a referral

To develop a referral map for low, moderate and high nutrition risk with the toddler/preschool population, it is necessary to communicate with various sectors to:

- Discuss the purpose of the NutriSTEP® program;
- Work to determine referral processes; and
- Communicate the potential increase in service demands as a result of the screening program.

Example services that can be included in a referral map include: public health programs, services and resources (e.g., Healthy Babies Healthy Children Program, professional phone lines, parenting workshops, nutrition fact sheets and booklets), Hospital outpatient dietitians, Family Health Team dietitians, private practice dietitians, Community Health Centre and Community Care Access Centre dietitians, Ontario Early Years Programs, Best Start Hubs, Community Action Program for Children programs, physicians, specialized children's services (e.g., feeding clinics, allergy clinics, children's weight control clinics, children's mental health), and provincial services such as EatRight Ontario at www.eatrightontario.ca or 1-877-510-510-2.

To individualize a referral map for a community, there needs to be contact with all the potential and available referral sources in the community. For example, local outpatient dietitians in community hospital(s), Community Care Access Centre (CCAC), Family Health Team(s), and/or Community Health Centre(s) to find out the referral processes, catchment areas, types of nutrition problems they serve (e.g., obesity, feeding relationship issues or only therapeutic diets such as food allergies), and their wait times. Each referral source should be identified in the Referral Map with referral details.

A number of resources can be useful in setting up a referral process. These samples need to be individualized for your community. These resources can be found in the NutriSTEP® Implementation Toolkit, available at: www.nutristep.ca.

Next Steps in the NutriSTEP® Program

Through the implementation of a feasible and sustainable NutriSTEP®, there can be universal access to both the screening tool and its educational resources, and an entry point into the primary health care system where necessary. This could mean: greater coordination of services to young children and their families; improved continuity of care between various health care and social services providers; and, improved client and provider satisfaction.

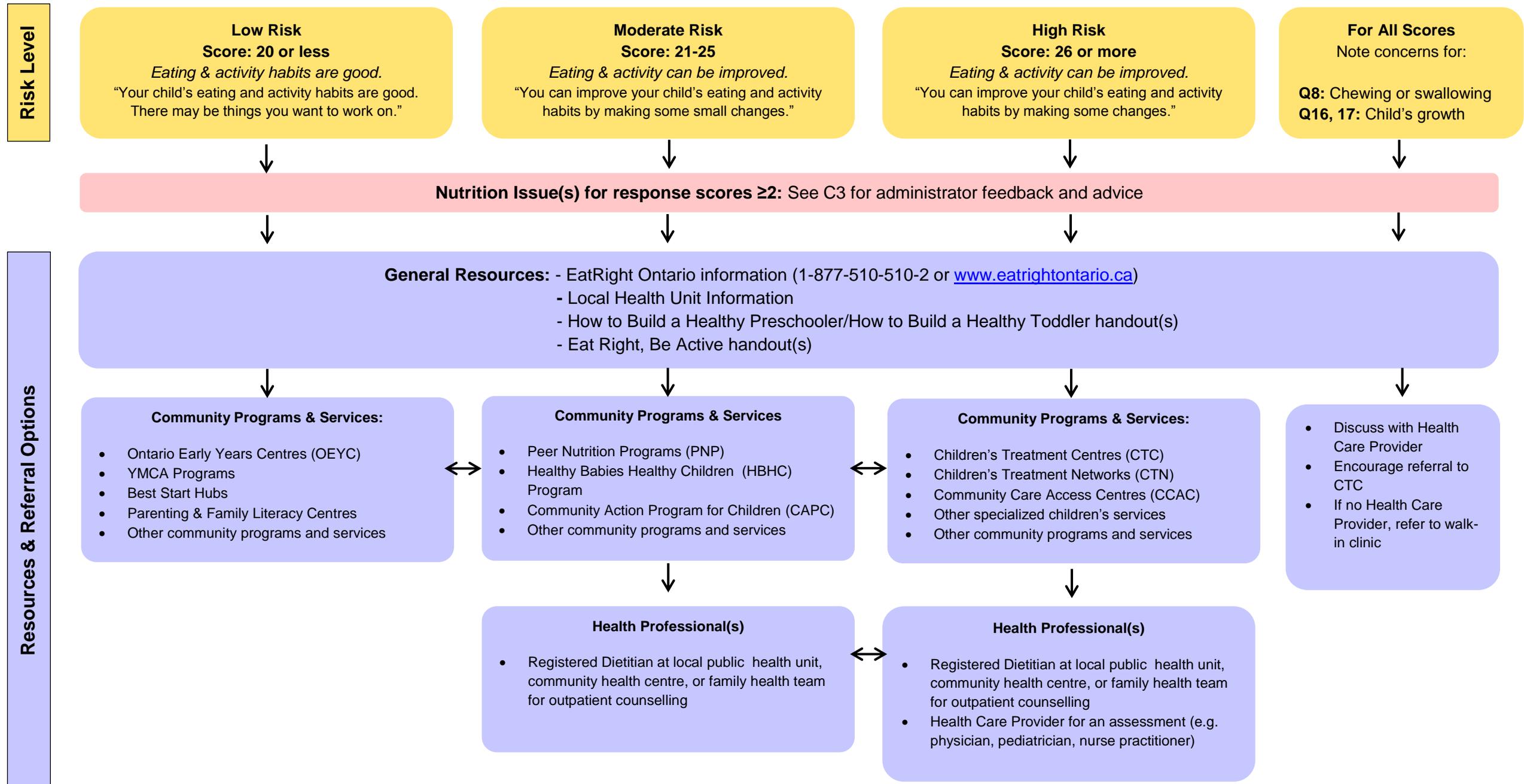
The overall goal of the NutriSTEP® Program is to improve the nutritional status of young children. NutriSTEP® provides an excellent basis for nutrition surveillance in young children across Ontario and Canada.

A long-term comprehensive action plan will ensure that: all key stakeholders are on board; financial resources are available to sustain a program over time; and, that there is action on the results of toddler/preschool nutrition screening. For more information on NutriSTEP® Program, visit www.nutristep.ca

C2: Referral Map Templates Based on NutriSTEP® Risk Score

June 2015

Public Health/Community Setting

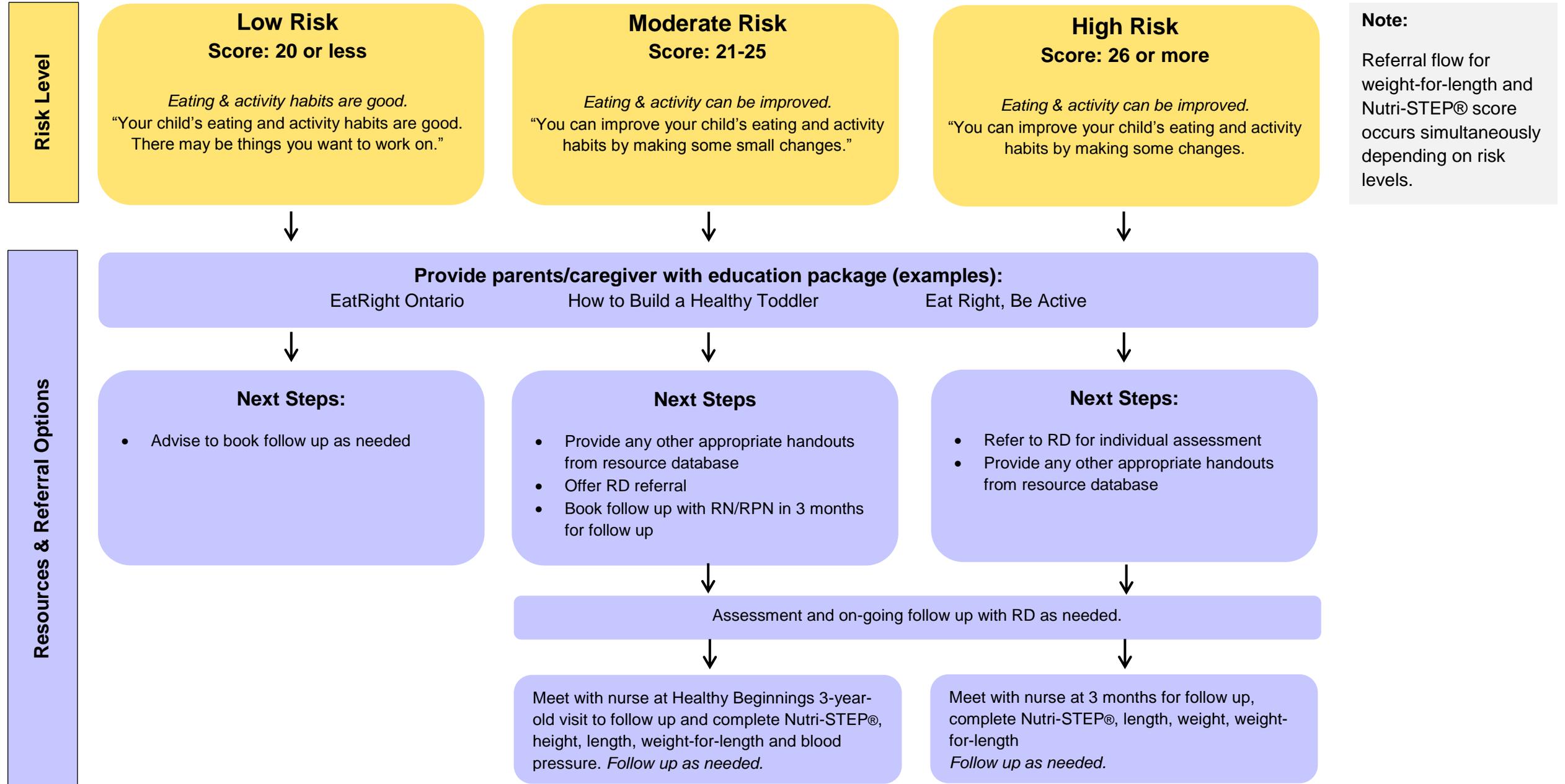


C2: Referral Map Templates Based on NutriSTEP® Risk Score

June 2015

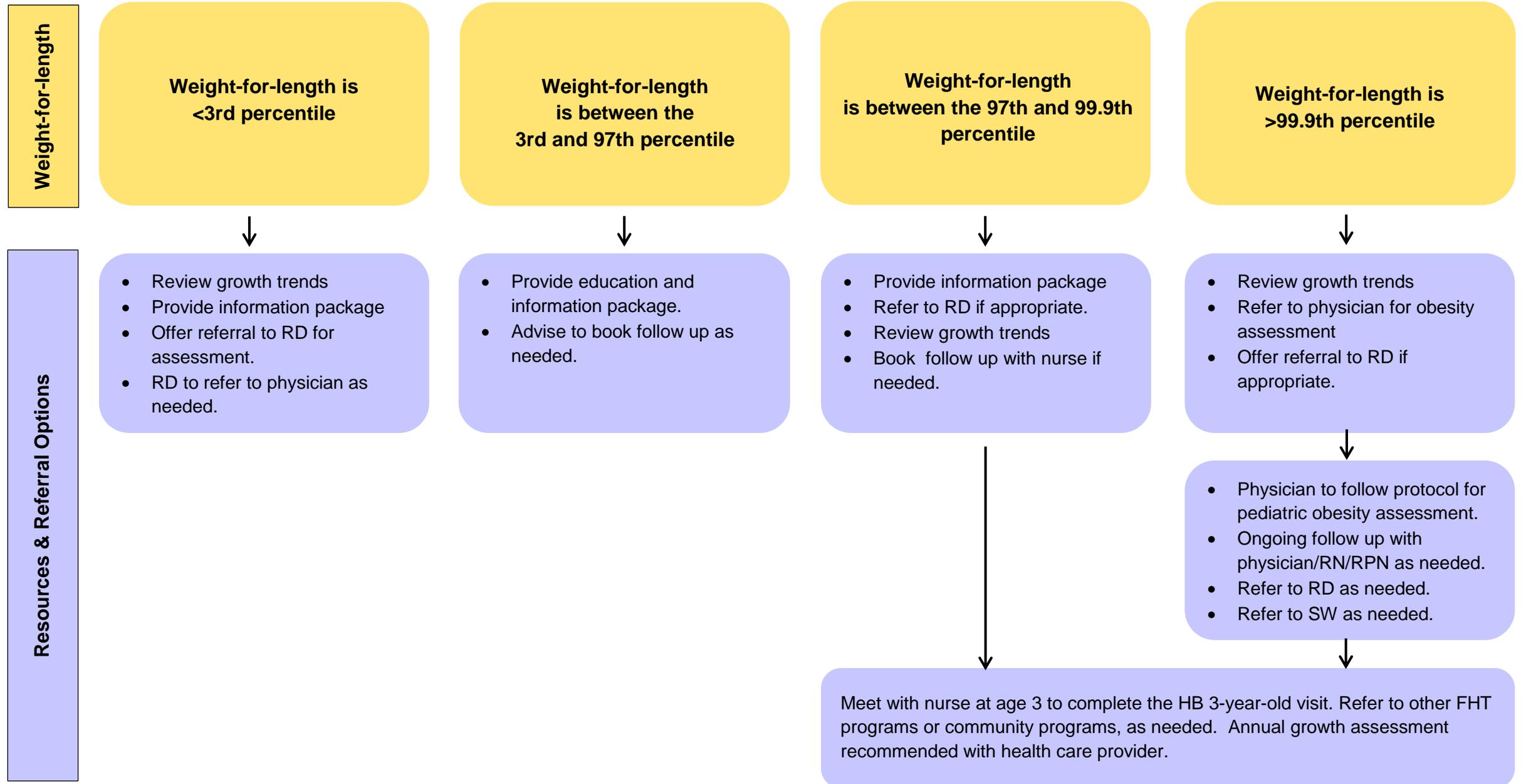
Primary Care Setting (18-month visit)

Components of the visit include: measure weight, length; calculate weight-for-length; and complete and score the Nutri-STEP® nutrition screen



Primary Care Setting (18-month visit)

Components of the visit include: measure weight, length; calculate weight-for-length; and complete and score the Nutri-STEP® nutrition

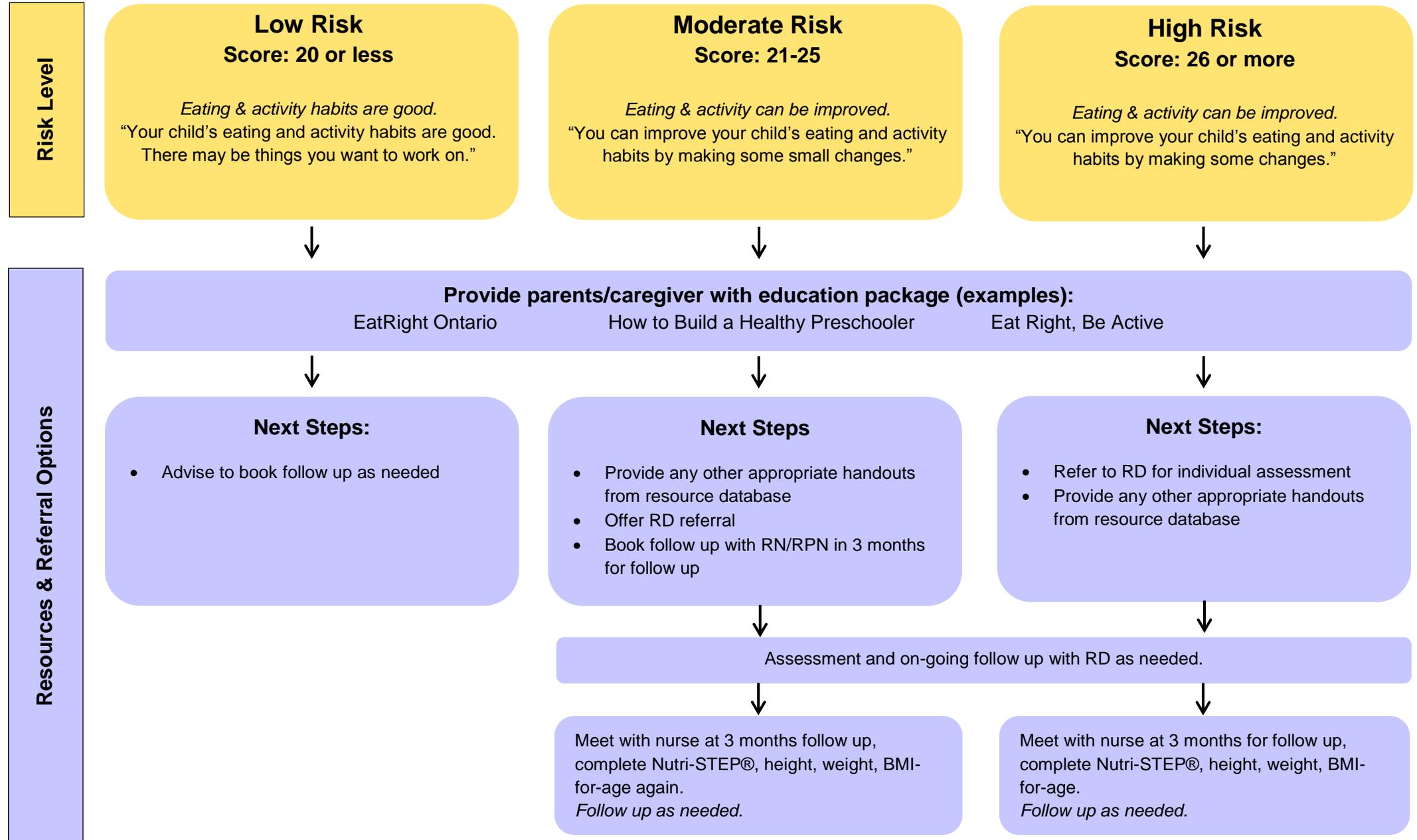


C2: Referral Map Templates Based on NutriSTEP® Risk Score

June 2015

Primary Care Setting (3-year-old visit)

Components of the visit include: measure weight, height; calculate BMI-for-age, blood pressure; complete and score the Nutri-STEP® nutrition screen



Note:

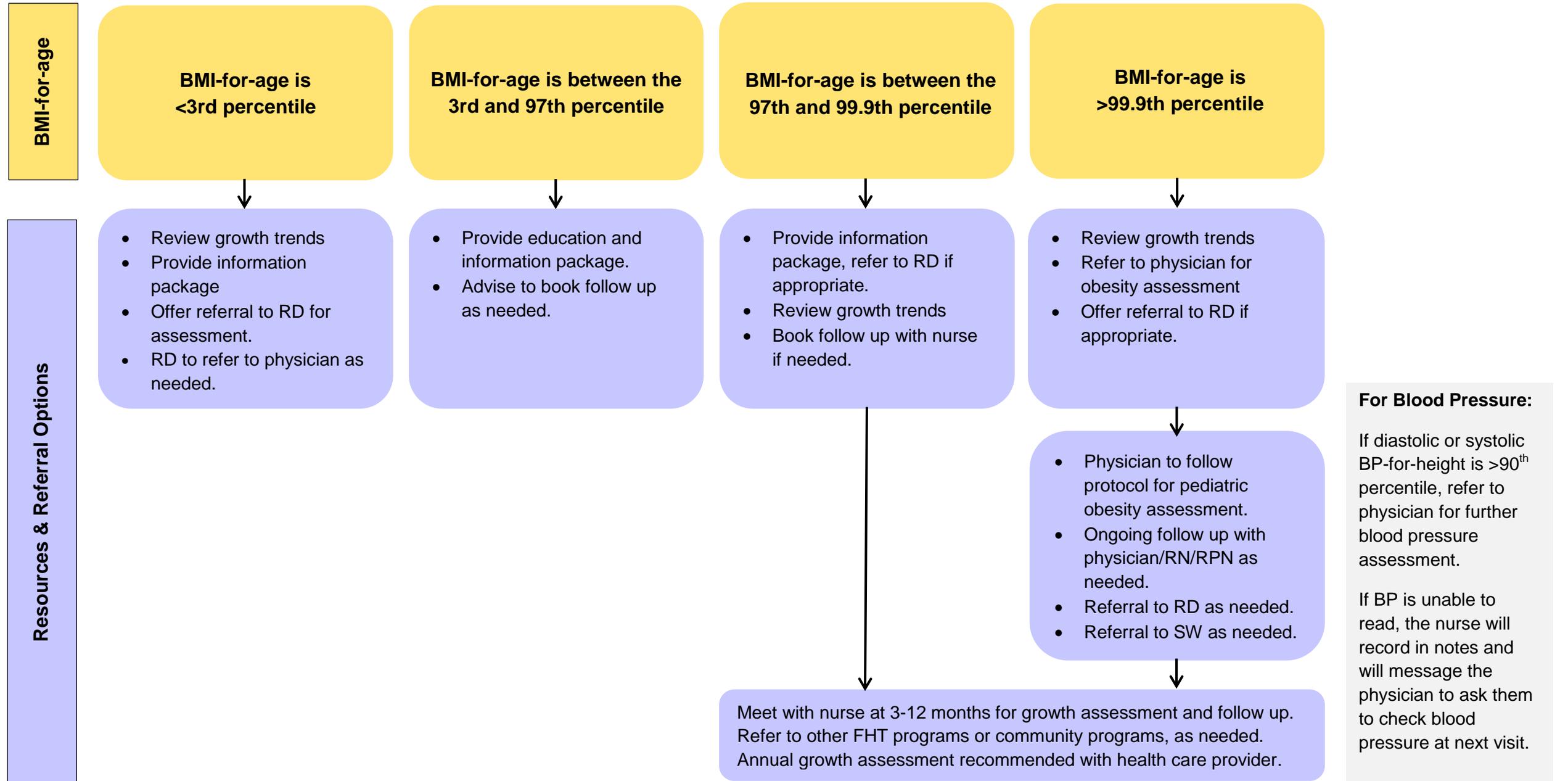
Referral flow for BMI-for-age, blood pressure-for-age, and Nutri-STEP® score occurs simultaneously depending on risk levels.

C2: Referral Map Templates Based on NutriSTEP® Risk Score

June 2015

Primary Care Setting (3-year-old visit)

Components of the visit include: measure weight, height; calculate BMI-for-age, blood pressure; complete and score the Nutri-STEP® nutrition screen



APPENDIX C: REFERRAL MAPPING – SAMPLE TEMPLATES

C3: Standardized Responses for Screen Administrators

Attribute	Related NutriSTEP® questions*	Screener feedback and advice for NutriSTEP® responses ≥2**
<p>Food and Fluid Intake</p> <p>(quality and quantity of food and beverages consumed, food preferences and acceptance)</p>	<ul style="list-style-type: none"> • My child usually eats grain products (Q1T) (Q1P) • My child usually has milk products (Q2T) (Q2P) • My child usually eats fruit (Q3P) • My child usually eats vegetables (Q4P) • My child usually eats vegetables and fruit (Q3T) • My child usually eats meat, fish, poultry or alternatives (Q4T) (Q5P) • My child usually eats restaurant or take-out “fast foods” (Q5T) • My child usually eats “fast food” (Q6P)^a • My child usually drinks juice or flavoured beverages (Q6T) • My child is not hungry at mealtimes because he/she drinks all day (Q9P) • My child usually eats [number] times per day (Q10P) • My child usually takes supplements (Q13P)^a 	<p>For questions 1-4T, 1-5P and 10P: ‘Please take a look at the educational booklets for more information on Canada’s Food Guide, the recommended servings and meal patterns for toddlers and preschoolers. For more information, call your health unit or EatRight Ontario’.</p> <p>For questions 5 & 6T, 6, 9 & 13P: ‘Please call your health unit or EatRight Ontario for more information and advice on these topics’.</p>
<p>Physical Growth and Development</p> <p>(weight, height and growth patterns, oral motor skills-chewing swallowing; social, intellectual and emotional maturity and skills)</p>	<ul style="list-style-type: none"> • I am comfortable with how my child is growing (Q16T) (Q16P) • I think my child (Q17T) • My child weighs [too little/much] (Q17P) • My child has problems chewing, swallowing, gagging or choking when eating (Q8T) (Q8P) 	<p>For questions 16 & 17 (T & P): ‘Please discuss your child’s growth concerns with your child’s doctor/pediatrician/nurse practitioner/dietitian’.</p> <p>For question 8 (T & P) ‘Please discuss your child’s eating concerns with your child’s doctor/pediatrician/ nurse practitioner/dietitian’.</p>
<p>Physical activity and sedentary behaviour</p>	<ul style="list-style-type: none"> • My child [gets enough/needs more] physical activity (Q14P) • My child usually watches TV, or uses the computer, or plays video games (Q15T)^b • My child usually watches TV, uses the computer, and plays video games (Q15P)^b 	<p>‘Please take a look at the educational booklets or visit the Canadian Society for Exercise Physiology website - csep.ca for more information on the physical activity needs and recommendations for toddlers and preschoolers. For more information, call your health unit or EatRight Ontario’.</p>

C3: Standardized Responses for Screen Administrators

<p>Factors affecting food intake and eating behaviours</p> <p>(culture and ethnicity, family food/eating preferences, parental concerns, nutrition knowledge, beliefs and practices, food security, feeding environment)</p>	<ul style="list-style-type: none"> • I have difficulty buying food I want to feed my child because food is expensive (Q7T) • I have difficulty buying food to feed my child because food is expensive (Q7P) • My child usually eats [number] times per day (Q10P) • My child feeds his/her self at meals and snacks (Q9T) • My child drinks from a baby bottle with a nipple (Q10T) • I let my child decide how to eat (Q13T) (Q11P) • My child is hungry at mealtimes (Q11T) • My child usually eats meals and snacks (Q12T) • My child eats meals or snacks while watching TV, or being read to, or playing with toys (Q14T)^a • My child eats meals while watching TV (Q12P)^a 	<p>For question 7: ‘Please call EatRight Ontario for information on meal planning on a tight budget. Contact your health unit for a listing of local food assistance programs in your area’.</p> <p>For questions 9-14T, 10-12P: ‘Please take a look at the educational booklets for information on encouraging positive feeding habits for toddlers and preschoolers. For more information, call your health unit or EatRight Ontario’.</p>
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*Note: There are questions in NutriSTEP® that can be related to more than one component. For example, the number of times a child eats per day (Q10P, Q14T) is related to food and fluid intake and could be based on a parent’s knowledge or attitudes around food and eating (“other factors affecting food intake and eating behaviours”).

**Note: Exceptions for ≥2 cut-point include: ^aCut-point for Q6P & Q12P & Q13P & Q14T is ≥3. ^bCut-point for Q15P & Q15T is ≥1.

Q = question, # = number, T = toddler screen, P = preschooler screen

APPENDIX C: REFERRAL MAPPING – SAMPLE TEMPLATES

C4: Sample Directory of Referral Sources

Program	Phone Number Email/Fax	Referral Process/Wait List	Type of Service/Fee
Individual Dietitian Counseling (Suitable for high risk referrals)			
Outpatient Hospital Nutrition Counseling Service (s) Address (es)	Phone: Email/Fax: Phone: Email/Fax:	<i>Specify referral requirements</i> e.g., Pediatrician referral only.	<i>Specify</i> e.g., one-on-one counseling with outpatient dietitian. Pediatric referrals limited to failure to thrive and treatment of overweight/obesity. OHIP Coverage
Community Health Centre (s) Address (es)	Phone: Email/Fax: Phone: Fax:	<i>Specify referral requirements</i> e.g., Self-referral to dietitian only. <i>Additional Comments</i> e.g., Clients of the health centre requesting to see a dietitian need a referral by a health professional working at the centre.	<i>Specify</i> e.g., one-on-one counseling with dietitian. Some general nutrition sessions may be offered in groups. OHIP Coverage
Community Care Access Centre (s) Address (es)	Phone: Email/Fax:	<i>Specify referral requirements</i> e.g., Self or nurse referral. Must meet eligibility as determined by Case Manager’s assessment.	<i>Specify</i> e.g., in-home nutrition counseling by a dietitian. Must meet eligibility- case-by-case basis. OHIP Coverage
Family Health Team (s) Address (es)	Phone: Email/Fax:	<i>Specify referral requirements</i> e.g., Referral by health care professional (MD, RPN, RN, PHN). <i>Additional Comments</i> e.g. The individual must be a member of the FHT to access services.	<i>Specify</i> e.g., one-on-one counseling. Group sessions for hypertension. OHIP Coverage

APPENDIX C: REFERRAL MAPPING – SAMPLE TEMPLATES

C4: Sample Directory of Referral Sources

Private Practice Dietitians	Contact Health Unit for more information on local contacts Or Consulting Dietitians Network 1-888-901-7776 Or www.dietitians.ca (click Find a Nutrition Professional)	<i>Specify referral requirements e.g.,</i> Self-referral	<i>Specify e.g.,</i> in-home or office nutrition counseling by a dietitian. Fee for Service
Feeding clinic(s)	Phone: Email/Fax:	MD referral required	Feeding service for in-depth feeding issues. May/may not have access to dietitian services. Fee for Service
Other Supportive Services and Community Programs (Suitable for all risk referrals)			
Eat Right Ontario	1-877-510-5102 Monday-Friday 9am-5pm (Tue & Thu to 9pm) www.eatrightontario.ca	No referral required	Phone service in various languages or email response for the general public and health intermediaries. Answers nutrition and healthy eating questions such as infant feeding, picky eater and healthy weights.
Healthy Babies Healthy Children (HBHC) - Home visiting program	Local health unit contact information	Self-referral	A Family Visitor (experienced parent employed by local health unit) comes to the home to provide extra support and information about healthy child development and parenting skills for parents of children up to 6 years of age.
Health Unit Dietitians	Phone: Email/Fax:	Do not provide individual counseling.	Provide limited support to the child and family health unit programs and services. Provides general child nutrition information through phone consultations and community presentations.

APPENDIX C: REFERRAL MAPPING – SAMPLE TEMPLATES

C4: Sample Directory of Referral Sources

Community Food Advisors	Phone: Email/Fax:	Do not provide individual counseling.	Lead community classes on general healthy eating and topics such as making baby food.
Ontario Early Years Centres (OEYC)/Best Start Hubs-specify sites	Local OEYC and Best Start hub contact information	No referral required	Parenting programs that support parents and caregivers of children up to age 6 years in all aspects of early child development.
CAPC (Community Action Program for Children)-specify sites	Local contact information	No referral required	Primarily for teen parents, newly immigrated parents and parents who are socially isolated due to economic circumstances, illness, disability, place of residence and/or ethno-cultural factors with children 0 to 6 years.
Other local services (specify)			

C5: Sample Referral Form to a Primary Health Care Provider

Date: _____ Location: _____

Childs Name: _____

Sex (M/F): _____ Date of Birth (DD/MM/YY): _____ Age (years): _____

Address: _____ Postal Code: _____

Parent/Guardian: _____

Contact No: _____ Alternative No: _____

Family Physician/Pediatrician/Nurse Practitioner/Registered Dietitian: _____

The above named child has been referred to you following participation in the NutriSTEP®, nutrition screening program. The child was screening using NutriSTEP®, a valid and reliable 17-item nutrition risk screening questionnaire for parents to complete about their toddlers (18 to 35 months) and/or preschoolers (3 to 5 years). This program is endorsed by the Ministry of Health and Long-Term Care. If you would like to know more about NutriSTEP®, please visit the NutriSTEP® website at www.nutristep.ca.

This child was screened using the NutriSTEP® screening tool and received a score of: _____

Further assessment by a Family Physician/Pediatrician/Nurse Practitioner/Registered Dietitian is recommended because there are concerns about the following (check all that apply):

- child's growth patterns,
- child's weight
- problems chewing, swallowing, gagging or choking
- there is a score of 26 or greater.

Please refer to the NutriSTEP® questionnaire for more detail about these concerns.

The child has been referred for follow-up in the other areas of:

- Speech & Language at: _____
- Motor and/or Self Help skills at: _____
- Social Development at: _____
- Other: _____

Signature of Staff: _____

Print Name: _____

Phone number: _____

Organization: _____

Date: _____



C6: Sample Feedback Form to Parents

As part of this nutrition screening, an overall nutrition score has been calculated for your child. Depending on the overall score, you may need to seek further advice and services.

Child's Name: _____

Date: _____

If the total score is 20 or less:

Your child's eating and activity habits are good. There may be things that you want to work on; check out the educational material provided for tips and more information.

If the total score is 21 to 25:

You can improve your child's eating and activity habits by making some small changes. Check out the educational material provided for tips. For more information, contact your public health unit.

If the total score is 26 and greater:

You can improve your child's eating and activity habits by making some changes. For suggestions, talk to a health professional such as a registered dietitian or your family doctor or pediatrician.

Areas to Focus On	Referral/Recommendations
Appetite	
Beverages	
Bottle use	
Fast foods	
Food cost	
Food group servings	
Growth concerns	
Meals and snacks pattern	
Physical activity	
Screen time	
Self-feeding	
Supplements	
Swallowing/chewing concerns	
Trusting child's appetite/feeding dynamics	

D1: Implementation Survey for Screen Administrators

This survey should be filled out by those who administer/facilitate the NutriSTEP® questionnaire with parents.
Note: This form has been used for research purposes. Questions can be selected/omitted based on local needs.

1. How convenient was the [insert name of program/event] for the administration of NutriSTEP®?

- Very convenient
- Moderately convenient
- Not convenient
- Why or why not? _____

1. How convenient was the [insert name of program/event] for the administration of NutriSTEP®?

- Very convenient
- Moderately convenient
- Not convenient
- Why or why not? _____

2. What questions did parents ask of you with regard to NutriSTEP®?

3. How comfortable did you feel with:

- a) Answering parent questions
 - Very comfortable
 - Moderately comfortable
 - Not comfortable
- b) Providing resources related to NutriSTEP®
 - Very comfortable
 - Moderately comfortable
 - Not comfortable
- c) Making referrals for those at nutrition risk
 - Very comfortable
 - Moderately comfortable
 - Not comfortable

4. Did you find the Question-Specific Teaching Guides, provided during training to be helpful in using NutriSTEP®?

- Yes - these were useful
- No - these were not useful

If no, explain:

- Somewhat – these were somewhat useful
- Don't know – have not used them at all

5. How do you feel parents responded to the following?

- a) Screening – filling out the NutriSTEP® questionnaire
 - Very comfortable
 - Moderately comfortable
 - Not comfortable
- b) Accepting resources
 - Very comfortable
 - Moderately comfortable
 - Not comfortable
- c) Accepting referrals for those at risk
 - Very comfortable
 - Moderately comfortable
 - Not comfortable

APPENDIX D: FEEDBACK FOR DATA COLLECTION

6. Would you like to see the NutriSTEP® screening questionnaire used on an ongoing basis in this setting?

- Yes
- Maybe
- No

7. Was your training on NutriSTEP® scoring and making referrals sufficient?

- Yes
- No

If no, explain how could training be improved: _____

8. Did the NutriSTEP® training increase your confidence in:

	Yes	Somewhat	No
Assisting parents complete the screen			
Providing appropriate resources			
Making referral			

9. Do you have any other comments on the use of NutriSTEP® in your screening event/fair?

10. What other tools, resources or training would increase your confidence in using NutriSTEP®?

D2: Follow-up Survey for Parents

Note: This form has been used for research purposes. Questions can be selected/omitted based on local needs.

Participant #: _____ Date: _____

Date child screened: _____ Location of screening: _____

Age of child: 18 months 2 years 3 years 4 years 5 years

NutriSTEP® total score: _____ Risk level: Low Medium High

Phone #: _____ Best time to call: _____

Salutation:

Hello, may I speak to _____ [parent's first name] _____?

My name is _____ [insert your name, title, and your agency] _____.

I am calling to follow-up about the NutriSTEP® nutrition screening questionnaire you filled out for _____ [child's name] _____ at the _____ [insert name of event/program/date] _____.

Do you remember filling this out?

- Yes → GO TO **CONFIDENTIALITY**
- No → PROBE BY DESCRIBING THE QUESTIONNAIRE, SETTING IT WAS COMPLETED etc.

“Do you remember now?”

- Yes → GO TO **CONFIDENTIALITY**
- No → “Okay. Sorry for any confusion, then! I hope you have a great day.”

Confidentiality:

I was hoping that I could take 10-15 minutes of your time to ask you a few questions about the screening experience, the questionnaire you filled out and any nutrition referrals. Unfortunately I don't have the expertise to answer questions about your child's nutrition; however, if any questions come up, I can get back to you with an answer. The information that you provide will be used to help make filling out the NutriSTEP® nutrition questionnaires as effective as possible and the information you provide will be kept confidential.

Is it all right to continue with the survey?

- Yes → GO TO #1
- No → “Okay. Thank you for your time. I hope you have a great day.”

1. Why did you participate in the nutrition screening for your child?

2. Did you have any nutrition or eating concerns with your child before completing the NutriSTEP® questionnaire?

- No → GO TO #3
- Yes → GO TO #2b

2b) What nutrition or eating concerns did you have? (PROBE)

- | | |
|--|---|
| 1 <input type="checkbox"/> Picky eater | 12 <input type="checkbox"/> Drinking too much |
| 2 <input type="checkbox"/> Low consumption of: | 13 <input type="checkbox"/> Eats too much |
| 3 <input type="checkbox"/> Vegetables | 14 <input type="checkbox"/> Snacks too much |
| 4 <input type="checkbox"/> Meats/protein | 15 <input type="checkbox"/> High consumption of sweets |
| 5 <input type="checkbox"/> Iron-containing foods | 16 <input type="checkbox"/> Problems with food textures/solid foods |
| 6 <input type="checkbox"/> Milk/dairy | 17 <input type="checkbox"/> Power struggles with mealtimes |
| 7 <input type="checkbox"/> Fruits | 18 <input type="checkbox"/> Frequent vomiting |
| 8 <input type="checkbox"/> Not eating enough | 19 <input type="checkbox"/> Weaning issues |
| 9 <input type="checkbox"/> Bowel issues | 20 <input type="checkbox"/> Supplements |
| 10 <input type="checkbox"/> Allergies | 21 <input type="checkbox"/> Underweight |
| 11 <input type="checkbox"/> Other _____ | 22 <input type="checkbox"/> Overweight |

3. Can you tell me how completing the nutrition questionnaire has helped you or your child? (PROBE)

- | | |
|--|---|
| 1 <input type="checkbox"/> Gave reassurance child doing ok | 9 <input type="checkbox"/> Got me thinking about nutrition |
| 2 <input type="checkbox"/> Learned about portion sizes | 10 <input type="checkbox"/> Stopped eating in front of TV |
| 3 <input type="checkbox"/> Improved diet in general | 11 <input type="checkbox"/> Increased child's physical activity |
| 4 <input type="checkbox"/> Taught me where to go if problems arise | 12 <input type="checkbox"/> Made me more aware of: |
| 5 <input type="checkbox"/> Decreased power struggles | 13 <input type="checkbox"/> Low fruit consumption |
| 6 <input type="checkbox"/> Learned how to introduce new foods to child | 14 <input type="checkbox"/> Low vegetable consumption |
| 7 <input type="checkbox"/> No stated benefit | 15 <input type="checkbox"/> Low meat/protein consumption |
| 8 <input type="checkbox"/> Other _____ | 16 <input type="checkbox"/> Low milk intake |
| | 17 <input type="checkbox"/> Low grain intake |

4. Was the _____ a good setting to fill out the NutriSTEP® nutrition questionnaire?

- No → GO TO #4b
 Yes → GO TO #4b

4b) Can you tell me why/why not? (PROBE)

- | | |
|---|--|
| 1 <input type="checkbox"/> Wanted childcare | 1 <input type="checkbox"/> Logical place |
| 2 <input type="checkbox"/> Not enough time | 2 <input type="checkbox"/> Well-rounded experience |
| 3 <input type="checkbox"/> Other _____ | 3 <input type="checkbox"/> Fit well with other screenings |
| | 4 <input type="checkbox"/> Consulted with health care provider |
| | 5 <input type="checkbox"/> Other _____ |

5. What did you think about the questions you were asked on the NutriSTEP® nutrition questionnaire? (PROBE)

- | | |
|--|---|
| 1 <input type="checkbox"/> Straightforward | 12 <input type="checkbox"/> Missing areas such as: |
| 2 <input type="checkbox"/> Easy to understand | 13 <input type="checkbox"/> Income |
| 3 <input type="checkbox"/> Good | 14 <input type="checkbox"/> Organics |
| 4 <input type="checkbox"/> Age-appropriate | 15 <input type="checkbox"/> Toxins |
| 5 <input type="checkbox"/> Appropriate | 16 <input type="checkbox"/> Fat |
| 6 <input type="checkbox"/> Thorough | 17 <input type="checkbox"/> Too long |
| 7 <input type="checkbox"/> Thought-provoking | 18 <input type="checkbox"/> Too short |
| 8 <input type="checkbox"/> Good length | 19 <input type="checkbox"/> Confusing |
| 9 <input type="checkbox"/> Culturally relevant | 20 <input type="checkbox"/> Difficult to answer |
| 10 <input type="checkbox"/> Don't remember | 21 <input type="checkbox"/> Missing culturally-relevant foods |
| 11 <input type="checkbox"/> Other _____ | 22 <input type="checkbox"/> Some questions hard to answer |

6. Before we move onto some other questions, do you have any further comments/concerns about filling out the NutriSTEP® nutrition questionnaire?

- No → GO TO #7
- Yes → _____

7. Where do you usually get your of nutrition advice from? (PROBE)

- | | |
|---|--|
| 1 <input type="checkbox"/> Doctor/Nurse Practitioner | 14 <input type="checkbox"/> Websites/online |
| 2 <input type="checkbox"/> Registered Dietitian | 15 <input type="checkbox"/> Experience/common sense |
| 3 <input type="checkbox"/> Health Unit | 16 <input type="checkbox"/> Daycare centre/childcare provider |
| 4 <input type="checkbox"/> Nurse | 17 <input type="checkbox"/> Community Health Centre |
| 5 <input type="checkbox"/> Friends | 18 <input type="checkbox"/> Grocery store |
| 6 <input type="checkbox"/> Dentist | 19 <input type="checkbox"/> Community or drop-in centre |
| 7 <input type="checkbox"/> Social worker | 20 <input type="checkbox"/> 1-800 numbers |
| 8 <input type="checkbox"/> Teachers | 21 <input type="checkbox"/> Schools |
| 9 <input type="checkbox"/> Family | 22 <input type="checkbox"/> Books |
| 10 <input type="checkbox"/> Coworkers | 23 <input type="checkbox"/> Eating Well with Canada's Food Guide |
| 11 <input type="checkbox"/> EatRight Ontario | 24 <input type="checkbox"/> Magazines |
| 12 <input type="checkbox"/> Naturopath/homeopath/nutritionist | 25 <input type="checkbox"/> Early Years Centres |
| 13 <input type="checkbox"/> Other | 26 <input type="checkbox"/> Television |
| | 27 <input type="checkbox"/> Other |

8. When you filled out the NutriSTEP® nutrition questionnaire, the numbers for each question were added up to get a total score. I am wondering if you talked to anyone about your child's nutrition or if you consulted any sources for more information after you learned what your child's score meant?

- No → GO TO #9
- Yes → GO TO #8b

8b) Where do you usually get your nutrition advice from? (PROBE)

- | | |
|---|--|
| 1 <input type="checkbox"/> Doctor/Nurse Practitioner | 14 <input type="checkbox"/> Websites/online |
| 2 <input type="checkbox"/> Registered Dietitian | 15 <input type="checkbox"/> Experience/common sense |
| 3 <input type="checkbox"/> Health Unit | 16 <input type="checkbox"/> Daycare centre/childcare provider |
| 4 <input type="checkbox"/> Nurse | 17 <input type="checkbox"/> Community Health Centre |
| 5 <input type="checkbox"/> Friends | 18 <input type="checkbox"/> Grocery store |
| 6 <input type="checkbox"/> Dentist | 19 <input type="checkbox"/> Community or drop-in centre |
| 7 <input type="checkbox"/> Social worker | 20 <input type="checkbox"/> 1-800 numbers |
| 8 <input type="checkbox"/> Teachers | 21 <input type="checkbox"/> Schools |
| 9 <input type="checkbox"/> Family | 22 <input type="checkbox"/> Books |
| 10 <input type="checkbox"/> Coworkers | 23 <input type="checkbox"/> Eating Well with Canada's Food Guide |
| 11 <input type="checkbox"/> EatRight Ontario | 24 <input type="checkbox"/> Magazines |
| 12 <input type="checkbox"/> Naturopath/homeopath/nutritionist | 25 <input type="checkbox"/> Early Years Centres |
| 13 <input type="checkbox"/> Other | 26 <input type="checkbox"/> Television |
| | 27 <input type="checkbox"/> Other |

8c) If you talked to someone, what topics did you discuss? (PROBE)

- | | |
|---|---|
| 1 <input type="checkbox"/> Having enough food/money (food security) | 11 <input type="checkbox"/> Increasing physical activity |
| 2 <input type="checkbox"/> Decreasing TV time | 12 <input type="checkbox"/> Limiting TV time |
| 3 <input type="checkbox"/> Food groups-types of foods | 13 <input type="checkbox"/> Bottle use (toddler) |
| 4 <input type="checkbox"/> Balanced meals and snacks | 14 <input type="checkbox"/> Decreasing fast food intake |
| 5 <input type="checkbox"/> Food guide serving sizes | 15 <input type="checkbox"/> Decreasing fluid intake |
| 6◊ Grains | 16 <input type="checkbox"/> Number of meals a day |
| 7◊ Meats/alternatives | 17 <input type="checkbox"/> Dietary supplements |
| 8◊ Milk and milk products | 18 <input type="checkbox"/> Growth |
| 9◊ Fruits | 19 <input type="checkbox"/> Chewing and swallowing difficulties |
| 10◊ Vegetables | 20 <input type="checkbox"/> Other _____ |

9. I am wondering what your thoughts or feelings were about your child's score of ____? (PROBE)

- | | |
|--------------------------------------|--|
| 1 <input type="checkbox"/> Relieved | 6 <input type="checkbox"/> Not surprised |
| 2 <input type="checkbox"/> Reassured | 7 <input type="checkbox"/> Surprised child is doing well |
| 3 <input type="checkbox"/> Pleased | 8 <input type="checkbox"/> Surprised, thought they were doing better |
| 4 <input type="checkbox"/> Disbelief | 9 <input type="checkbox"/> Room for improvement |
| 5 <input type="checkbox"/> Sad | 10 <input type="checkbox"/> Other _____ |

10. Do you remember what recommendations the screener made regarding your child's nutrition?

- No →GO TO #11
 Yes →GO TO #10b

10b) Can you tell me what they were?

- | | |
|---|---|
| 1 <input type="checkbox"/> Having enough food/money (food security) | 11 <input type="checkbox"/> Increasing physical activity |
| 2 <input type="checkbox"/> Decreasing TV time | 12 <input type="checkbox"/> Limiting TV time |
| 3 <input type="checkbox"/> Food groups-types of foods | 13 <input type="checkbox"/> Bottle use (toddler) |
| 4 <input type="checkbox"/> Balanced meals and snacks | 14 <input type="checkbox"/> Decreasing fast food intake |
| 5 <input type="checkbox"/> Food guide serving sizes | 15 <input type="checkbox"/> Decreasing fluid intake |
| 6◊ Grains | 16 <input type="checkbox"/> Number of meals a day |
| 7◊ Meats/alternatives | 17 <input type="checkbox"/> Dietary supplements |
| 8◊ Milk and milk products | 18 <input type="checkbox"/> Growth |
| 9◊ Fruits | 19 <input type="checkbox"/> Chewing and swallowing difficulties |
| 10◊ Vegetables | 20 <input type="checkbox"/> Other _____ |

11. Did you follow any of the recommendations?

- No →GO TO #11b
 Yes →GO TO #11c

11b) I was wondering if there is a reason why not: _____

11c) I am wondering if you can tell me which ones you followed?

- | | |
|---|---|
| 1 <input type="checkbox"/> Having enough food/money (food security) | 11 <input type="checkbox"/> Increasing physical activity |
| 2 <input type="checkbox"/> Decreasing TV time | 12 <input type="checkbox"/> Limiting TV time |
| 3 <input type="checkbox"/> Food groups-types of foods | 13 <input type="checkbox"/> Bottle use (toddler) |
| 4 <input type="checkbox"/> Balanced meals and snacks | 14 <input type="checkbox"/> Decreasing fast food intake |
| 5 <input type="checkbox"/> Food guide serving sizes | 15 <input type="checkbox"/> Decreasing fluid intake |
| 6◊ Grains | 16 <input type="checkbox"/> Number of meals a day |
| 7◊ Meats/alternatives | 17 <input type="checkbox"/> Dietary supplements |
| 8◊ Milk and milk products | 18 <input type="checkbox"/> Growth |
| 9◊ Fruits | 19 <input type="checkbox"/> Chewing and swallowing difficulties |
| 10◊ Vegetables | 20 <input type="checkbox"/> Other _____ |

12. Were you referred to or did you contact/any health professionals for more information after completing the questionnaire? (PROBE)

- | | |
|---|--|
| 1 <input type="checkbox"/> None | → GO TO #29 - <u>RESOURCES AND OVERALL SCREENING</u> , |
| 2 <input type="checkbox"/> Registered Dietitian | → GO TO #13 - <u>REFERRALS</u> |
| 3 <input type="checkbox"/> Physician | → GO TO #13 - <u>REFERRALS</u> |
| 4 <input type="checkbox"/> Nurse Practitioner | → GO TO #13 - <u>REFERRALS</u> |
| 5 <input type="checkbox"/> Local Health Unit | → GO TO #24 - <u>CONTACTS</u> |
| 6 <input type="checkbox"/> EatRight Ontario | → GO TO #24 - <u>CONTACTS</u> |
| 7 <input type="checkbox"/> Pediatrician | → GO TO #24 - <u>CONTACTS</u> |
| 8 <input type="checkbox"/> Feeding Clinic | → GO TO #24 - <u>CONTACTS</u> |
| 9 <input type="checkbox"/> Other _____ | → GO TO #24 - <u>CONTACTS</u> |

REFERRALS

13. Have seen your child's [dietitian, physician/nurse practitioner] yet?

- No → GO TO #13b
 Wait list → GO TO #13c
 Yes → GO TO #14

13b) I am wondering if there is a reason why not? (PROBE)

- 1 Don't want to
 2 Other _____
 → GO TO #23
- 3 Haven't gotten around to it yet

13c) How long have you been on the waiting list? _____ → GO TO #23

14. What nutritional areas were discussed?

- | | |
|---|---|
| 1 <input type="checkbox"/> Having enough food/money (food security) | 11 <input type="checkbox"/> Increasing physical activity |
| 2 <input type="checkbox"/> Decreasing TV time | 12 <input type="checkbox"/> Limiting TV time |
| 3 <input type="checkbox"/> Food groups-types of foods | 13 <input type="checkbox"/> Bottle use (toddler) |
| 4 <input type="checkbox"/> Balanced meals and snacks | 14 <input type="checkbox"/> Decreasing fast food intake |
| 5 <input type="checkbox"/> Food guide serving sizes | 15 <input type="checkbox"/> Decreasing fluid intake |
| 6 <input type="checkbox"/> Grains | 16 <input type="checkbox"/> Number of meals a day |
| 7 <input type="checkbox"/> Meats/alternatives | 17 <input type="checkbox"/> Dietary supplements |
| 8 <input type="checkbox"/> Milk and milk products | 18 <input type="checkbox"/> Growth |
| 9 <input type="checkbox"/> Fruits | 19 <input type="checkbox"/> Chewing and swallowing difficulties |
| 10 <input type="checkbox"/> Vegetables | 20 <input type="checkbox"/> Other _____ |

15. What did the [dietitian, physician/nurse practitioner] recommend?

- | | |
|---|---|
| 1 <input type="checkbox"/> Having enough food/money (food security) | 11 <input type="checkbox"/> Increasing physical activity |
| 2 <input type="checkbox"/> Decreasing TV time | 12 <input type="checkbox"/> Limiting TV time |
| 3 <input type="checkbox"/> Food groups-types of foods | 13 <input type="checkbox"/> Bottle use (toddler) |
| 4 <input type="checkbox"/> Balanced meals and snacks | 14 <input type="checkbox"/> Decreasing fast food intake |
| 5 <input type="checkbox"/> Food guide serving sizes | 15 <input type="checkbox"/> Decreasing fluid intake |
| 6 <input type="checkbox"/> Grains | 16 <input type="checkbox"/> Number of meals a day |
| 7 <input type="checkbox"/> Meats/alternatives | 17 <input type="checkbox"/> Dietary supplements |
| 8 <input type="checkbox"/> Milk and milk products | 18 <input type="checkbox"/> Growth |
| 9 <input type="checkbox"/> Fruits | 19 <input type="checkbox"/> Chewing and swallowing difficulties |
| 10 <input type="checkbox"/> Vegetables | 20 <input type="checkbox"/> Other _____ |

16. Have you had a chance to try any of the suggestions/ recommendations yet?

- No → GO TO #16b
- Yes → GO TO #16b

16b) I was wondering if you could you tell me why/why not?

17. Did you find going to your child's [dietitian/physician nurse practitioner] helpful?

- No → GO TO #17b
- Yes → GO TO #17b

17b) I was wondering if you could you tell me why/why not? → GO TO #18

18. Did your [dietitian/physician/nurse practitioner] ask you to book a follow up appointment?

- No → GO TO #20
- Yes → GO TO #19

19. Have you already had a chance to go to the follow up appointment?

- No → GO TO # 19b
- Yes → GO TO # 19b
- Wait list → GO TO #20

19b) I was wondering if you could tell me why not/what was the outcome? → GO TO #20

20. Did your [dietitian/physician/nurse practitioner] refer you to someone else?

- No → GO TO #23
- Yes Who: _____ → GO TO #21

21. Have you seen this person yet?

- No → GO TO #21b
- Yes → GO TO #21c
- On waiting list → GO TO #23

21b) I am wondering if there is a reason why not/? (PROBE) → GO TO #23

21c) What was the outcome of this appointment? (PROBE) → GO TO #22

22. Was this helpful?

- No → GO TO #22b
- Yes → GO TO #22b

22b) I was wondering if you could tell me why/why not? → GO TO 23

CONTACTS

23. Did you email, phone or go see any other health professionals for more information? (PROBE)

- Local Health Unit → GO TO #24
- EatRight Ontario → GO TO #24
- None → GO TO #29 (RESOURCES AND OVERALL SCREENING)

24. What was your method of contact?

- Email → GO TO #25
- Phone → GO TO #25
- In-person → GO TO #25

25. What were their recommendations? → GO TO #26

26. Have you tried to follow their recommendations?

- No → GO TO #26b
- Yes → GO TO #26b

26b) I was wondering if you could tell me why/why not?

27. Did you find their recommendations helpful?

- No → GO TO #27b
- Yes → GO TO #27b

27b) I was wondering if you could tell me why/why not?

28. Were you referred to other resources (program or another person)?

- No → GO TO #29
- Yes → GO TO #28b

28b) I was wondering if you could tell me, who/where: _____

RESOURCES & OVERALL SCREENING

29. Do you still have the materials given to you when you completed the nutrition questionnaire? (questionnaire, resources)

- No → GO TO #30
- Yes → GO TO #30

30. Did you read any of the nutrition booklets provided to you?

- No → GO TO #31
- Yes → GO TO #30b

30b) Which ones did you read? (PROBE)

- 1 How to Build a Healthy Toddler/Preschooler booklet
- 2 Eat Right, Be Active Booklet booklet

- 3 Eating Well with Canada's Food Guide
 - 4 Other – specify _____
- GO TO #30c

30c) Did you find the educational materials useful? (PROBE)

- No → GO TO #30d
- Yes → GO TO #30d

30d) I was wondering if you could tell me why not/what was useful?

31. Having gone through the screening process, do you feel that you have had enough support to make any needed changes to your toddler/preschooler's diet?

- No → GO TO #31b
- Yes → GO TO #32

31b) How could the support be improved?

32. Overall, was the screening experience useful?

- No → GO TO #32b
- Yes → GO TO #32b

32b) I was wondering if you could tell me why/why not?

END CALL

“Thank you so much for taking the time to talk with me. The information that you gave me is invaluable and will help us improve the nutrition screening process. I hope you have a great day.”

**E1: Resource Binder for Screen Administrators and Service Providers
Sample Table of Contents**

Section 1

The ABC's of Toddler & Preschool Nutrition (PowerPoint presentation), NutriSTEP®
www.nutristep.ca

Section 2

How to Build a Healthy Toddler (Handout), NutriSTEP®
How to Build a Healthy Preschooler (Handout), NutriSTEP®
www.nutristep.ca

Section 3

Eat Right Be Active: Toddlers 12-36 months (Handout), Nutrition Resource Centre
Eat Right Be Active: Preschoolers ages 3-5 (Handout), Nutrition Resource Centre
www.nutritionrc.ca

Section 4

Eating Well with Canada's Food Guide: A Resource for Educators and Communicators, Health Canada
This resource provides background information, tips and tools to complement each recommendation in Canada's Food Guide. This resource can be used to:

- Write and talk about the importance of eating well;
- Develop or advocate for nutrition policies;
- Create new tools and resources.

www.hc-sc.gc.ca/fn-an/food-guide-aliment/educ-comm/resource-ressource-eng.php

Section 5

Canadian Physical Activity and Sedentary Behaviour Guidelines
www.csep.ca/guidelines

Section 6

Tips on Feeding Your Picky Toddler or Preschooler, Dietitians of Canada
If mealtimes are a struggle, following these tips will help your child develop better eating habits.
www.dietitians.ca/Your-Health/Nutrition-A-Z/Toddlers/Tips-on-Feedy-Picky-Toddler.aspx

Section 7 – Additional Links

EatRight Ontario – Childhood Nutrition www.eatrightontario.ca/en/Children.aspx

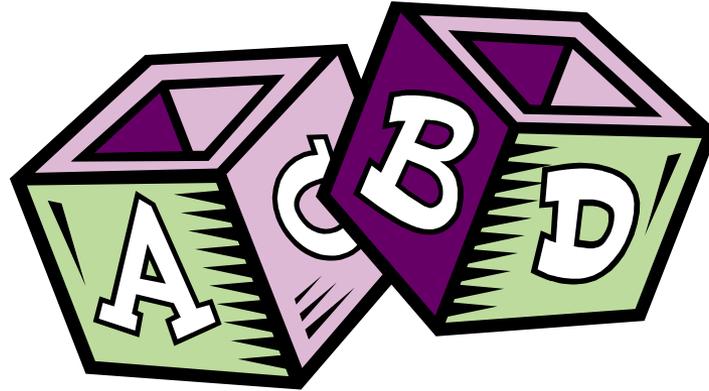
Healthy Canadians – Food & Nutrition www.healthycanadians.gc.ca/

Caring for Kids – Canadian Paediatric Society www.caringforkids.cps.ca/

Nutrition Resource Centre – www.nutritionrc.ca

Best Start Resource Centre – en.beststart.org/ or fr.meilleurdepart.org/

Physical Activity Resource Centre – parc.ophea.net



The ABCs of Toddler and Preschooler Nutrition



NutriSTEP[®]

Nutrition Screening
for Toddlers and Preschoolers

Why is Healthy Eating Important?

- To provide young children with energy and nutrients to grow properly and be active
- To develop their taste, acceptance and enjoyment of different foods
- To help them feel good
- To develop healthy food habits that will last a lifetime



A healthy child starts with healthy eating, physical activity and positive self-esteem.

- Children can meet their energy needs by following the eating pattern in Canada's Food Guide
- This eating pattern is high in carbohydrate foods, such as vegetables and fruit, whole grain breads and cereals
- Milk products, meat, fish, poultry, eggs, cooked legumes, and other meat and milk alternatives provide protein
- Fat comes from dairy products, meats, fats, oils and other foods

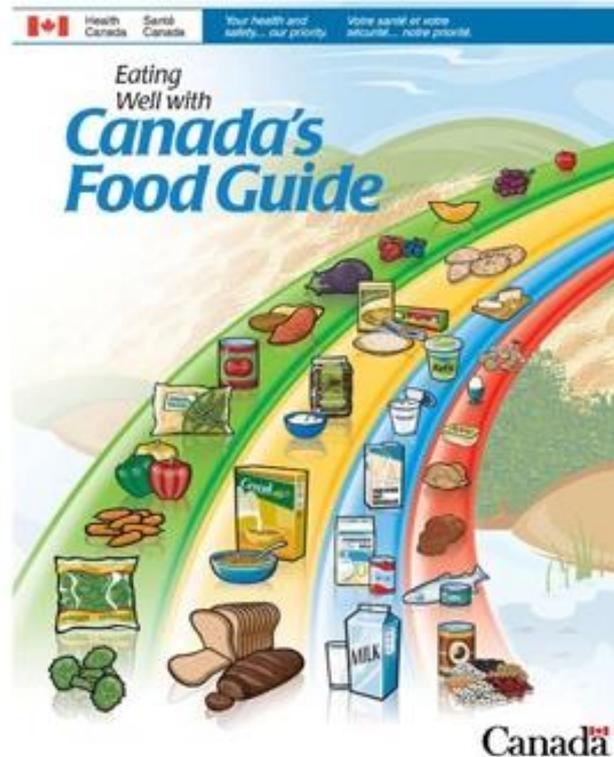


Balanced meals include a variety of foods from at least three of the four food groups.

- Serve vegetables and fruit at all meals and snacks
- Offer whole grain products at least half of the time
- Offer your child breastmilk or two cups of milk or fortified soy beverage each day
- Eat at least two Food Guide servings of fish each week
- Include a small amount of unsaturated fat each day (e.g., canola oil, olive oil, margarine, etc.)



Canada's Food Guide includes foods from the four food groups.



www.healthcanada.gc.ca/foodguide



Canada's Food Guide: Toddler vs. Preschooler

	Toddler	Preschooler
Age	<ul style="list-style-type: none">Toddler NutriSTEP® is tailored for toddlers ages 18–35 months	<ul style="list-style-type: none">Preschool NutriSTEP® is tailored for children ages 3–5 years
Canada Food Guide Difference	<ul style="list-style-type: none">Toddlers 18–23 months <u>do not have</u> recommendations for number of serving/day as they <u>are not included</u> on CFGToddlers 24-35 months are included on CFG and have recommended number of CFG servings/day	<ul style="list-style-type: none">Preschoolers have recommended number of CFG servings/day



Canada's Food Guide: Toddler vs. Preschooler

The eating pattern and food choices are similar for toddlers and preschoolers

Difference
With CFG

Toddler

18-23 months

- Canada's Food Guide (CFG) recommendations can be used as **general guidelines** for toddlers **food choices**, **not** the number of servings from each food group

24-35 months

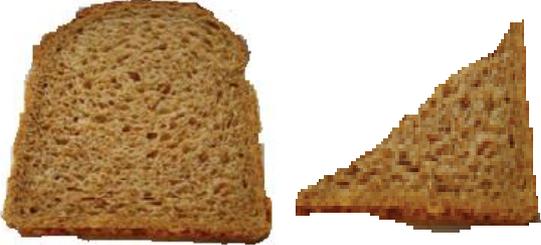
- Same as preschooler

Preschooler

- Preschoolers can meet their energy needs by following the eating pattern in Canada's Food Guide



Canada's Food Guide: Portions Sizes vs. Serving Size

Toddlers (24-35 months)	Preschoolers
<p>■ A portion for a toddler is generally $\frac{1}{4}$ to $\frac{1}{2}$ of (one) Food Guide Serving</p>	<p>■ A portion for a preschooler is usually $\frac{1}{2}$ to 1 (one) Food Guide Serving</p> 



Canada's Food Guide: Vegetables & Fruit

Toddlers (24-35 months)

Needs: **4** Food Guide Servings per day

A **portion** is generally:

- $\frac{1}{2}$ - $\frac{3}{4}$ medium size vegetable or fruit
- $\frac{1}{8}$ to $\frac{1}{4}$ cup (30 to 60 mL) fresh, frozen or canned vegetables or fruit
- $\frac{1}{4}$ - $\frac{1}{2}$ cup (60-125 mL) salad
- $\frac{1}{4}$ - $\frac{1}{2}$ cup (60 - 125 mL) juice

Preschoolers

Need **4 to 5** Food Guide Servings per day

A **portion** is generally:

- $\frac{1}{2}$ - 1 medium size vegetable or fruit
- $\frac{1}{4}$ - $\frac{1}{2}$ cup (60 to 125 mL) fresh, frozen or canned vegetables or fruit
- $\frac{1}{2}$ - 1 cup (125 to 250 mL) salad
- $\frac{1}{4}$ - $\frac{1}{2}$ cup (60 to 125 mL) juice



Canada's Food Guide: Grain Products

Toddlers (24-35 months)

Needs: **3** Food Guide Servings per day

A **portion** is generally:

$\frac{1}{4}$ to $\frac{1}{2}$ slice bread

$\frac{1}{8}$ to $\frac{1}{4}$ bagel, pita or bun

15 to **30 g** cold cereal

$\frac{1}{3}$ to $\frac{1}{2}$ cup (**75** to **125 mL**) hot cereal

$\frac{1}{8}$ to $\frac{1}{4}$ cup (**30** to **60 mL**) pasta or rice

Preschoolers

Need **3** to **4** Food Guide Servings per day

A **portion** is generally:

$\frac{1}{2}$ to **1** slice bread

$\frac{1}{4}$ to $\frac{1}{2}$ bagel, pita or bun

15 to **30 g** cold cereal

$\frac{1}{3}$ to $\frac{3}{4}$ cup (75 to 175 mL) hot cereal

$\frac{1}{4}$ to $\frac{1}{2}$ cup (60 to 125 mL) pasta or rice





Canada's Food Guide: Milk & Alternatives

Toddlers (24-35 months)

Needs: **2** Food Guide Servings per day

A **portion** is generally:

- $\frac{1}{2}$ - $\frac{3}{4}$ cup (125-175mL) milk
- $\frac{1}{2}$ - 1oz (15-25g) cheese
- $\frac{1}{3}$ - $\frac{3}{4}$ cup yogurt



Preschoolers

Need **2** Food Guide Servings per day

A **portion** is generally:

- $\frac{1}{2}$ - **1** cup (125-250mL) milk
- **1oz. (25g)** cheese
- $\frac{1}{3}$ - $\frac{3}{4}$ cup yogurt



Canada's Food Guide: Meat & Alternatives

Toddlers (24-35 months)

Needs: **1** Food Guide Serving per day

A **portion** is generally:

- 25 g (1 oz) meat, fish or poultry
- ½ egg
- ¼ cup cooked legumes (such as beans, peas and lentils)
- ¼ cup tofu
- 15 mL (1 tbsp) peanut butter

Preschoolers

Need **1** Food Guide Serving per day

A **portion** is generally:

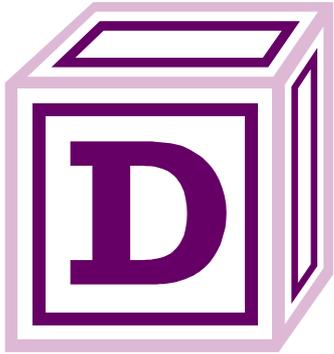
- 25 to 50 g (1 to 2 oz) meat, fish or poultry
- 1 egg
- ¼ to ½ cup cooked legumes (such as beans, peas and lentils)
- 50 to 100 g (¼ to 1/3 cup) tofu
- 15 to 30 mL (1 to 2 tbsp) peanut butter



Canada's Food Guide: Meat & Alternatives

Fish is a good source of protein and healthy fats (omega-3).
Offer 2 servings of fish each week

- Limit fish high in mercury
- Avoid fresh or frozen tuna steaks, shark, swordfish, orange roughy, escolar, marlin
- Choose low mercury fish, such as char, herring mackerel, rainbow trout, salmon and sardines
- Buy “light” tuna (Skipjack or Tongol) over “white” tuna
- If serving “white” tuna (Albacore, Bluefin), offer only two Food Guide Servings (or 150 grams) a month to children.



Don't pressure or bribe your child to eat. The more a parent pushes foods, the less likely a child is to eat them.

- Being a fussy eater at times is normal
- Don't force a child to eat a specific food. If hungry and given a choice of healthy foods, he or she will likely choose something to eat
- If a child is a fussy eater and does not seem to be healthy or growing normally, the child should be seen by the doctor



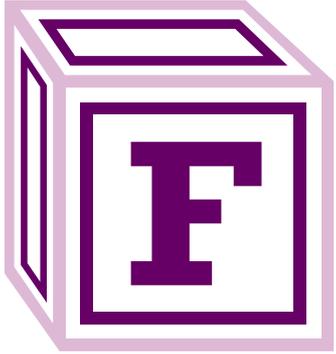
Eat with your child as often as possible.
Set a good example by eating a variety of foods.

Eat with them at the table and eat well yourself by choosing a variety of foods. Your toddler/preschooler:

- Will eat healthier foods
- Develop healthy attitudes toward food
- Can observe and learn at mealtimes
- May be more willing to experiment with new foods
- Learn table manners and how to behave at the table

Tips for Eating Out...

- Look for entrees that are steamed, baked, broiled, braised, poached or grilled
- Made-to-order options are a good idea. They are fresher and can be healthier
- Choose dressings and condiments carefully-some are very high in fat! Use lower fat options like mustard, ketchup and relish
- Order water, milk or 100% fruit juice as a beverage.



Food jags are periods when children will only eat certain foods.

Toddlers and preschoolers like:

- Simple foods that are easy to eat and suited to their cultural and personal preferences
- Foods served separately instead of mixed dishes
- Finger foods and small portion sizes
- Foods in fun and interesting ways (e.g., different colours, shapes, and flavours)



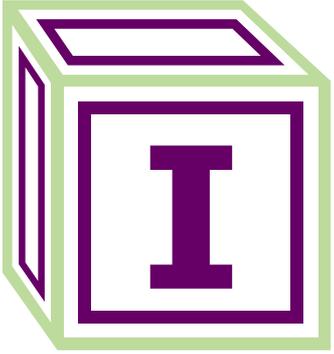
Growth is affected by many things.

- Each child is different and children can grow and develop at very different rates
- It is important to watch a child's **own** growth pattern over time
- Underweight or overweight children need family support and appropriate guidance
- If there are growth concerns, refer to their health care provider



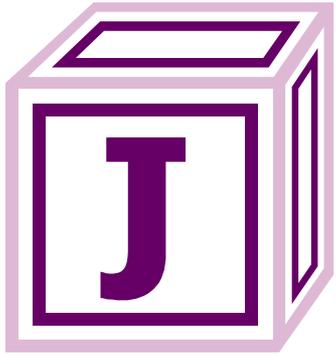
Healthy bodies come in different shapes and sizes.

- Focus on promoting pleasure and joy in eating as well as sensible eating
- Avoid making comments about food or body size
- Celebrate your child's unique qualities
- Teach them to love and value themselves
- Important to establish good foundation for lifelong eating habits



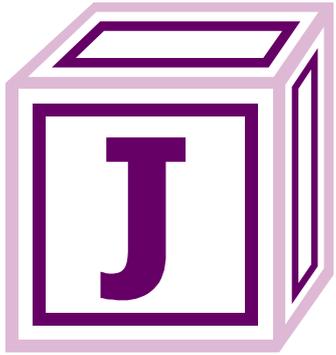
Iron is important for growth.

- Offer a variety of iron-rich foods at each meal such as meats, fish, eggs, tofu, legumes (such as beans, peas, and lentils) and iron-fortified cereals



Juice should be avoided or limited to no more than 125 to 175 mL ($\frac{1}{2}$ - $\frac{3}{4}$ cup) a day.

- Encourage water to quench thirst rather than juice
- Offer vegetables and fruit more often than juice



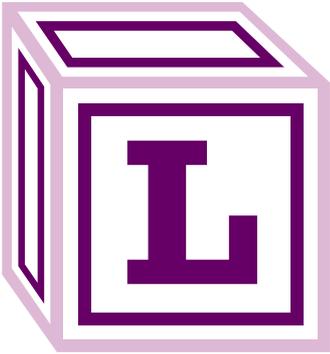
More on Juice

- If given, offer as part of a meal or snack
- Offer in an open cup
- Choose 100% unsweetened fruit juices only
- Avoid purchasing beverages or drinks labelled as a “drink”, “punch”, “-ade”, “beverage” or “cocktail”
- Sweetened and unsweetened juice contain natural sugars which can cause cavities



Keep a variety of healthy, ready-to-eat snacks available, such as fresh fruit, cut up vegetables, yogurt, cereal and milk.

- If chosen with care, snacks can be an important source of nutrients for children
- Aim for two food groups at each snack.
- Schedule meals and snacks 2 ½ to 3 hours apart so that children come to the table hungry and interested in eating



Limit screen time. Less is better.

- Limit the time your child spends watching television, on the computer or playing video games

	0-4 Years	5-11 Years
Screen Time	<u>Under 2 years: No screen time</u> <u>2-4 years: ≤ 1 hour</u>	5-11 years: ≤ 2 years



Milk and alternatives are important for growth as well as healthy bones and teeth.

- Breastfeeding is recommended until age two or longer
- Offer small servings (125 mL or ½ cup) of cow's milk at meals and snacks in an open cup
- Offer whole milk (homogenized) until two years of age.
- After that, drink what family is drinking



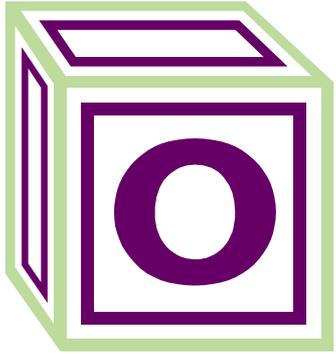
More on Milk

- Breastfeed for as long as both mother and child want
- Offer soy-based formula until 2 years of age if child is no longer breastfeeding and does not/cannot drink cow's milk
- Rice, almond and other vegetarian beverages are not suitable as the main milk source for children under 2 years
- After 2 years, offer fortified soy beverage if child does not drink milk



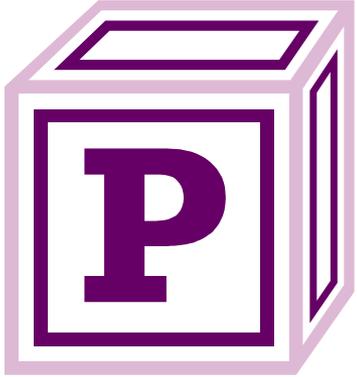
New foods offered many times without pressure will encourage children to try them. It may take 10-15 times before they actually eat them!

- Encourage the child to try a small bite
- Introduce new foods when other children are eating and enjoying that food
- Let the child explore and help prepare the new food



Offer at least one food your child likes, as well as other familiar and new foods at meals.

- Children will likely be more interested to eat
- Children are more likely to try new foods when they are hungry



Playing actively indoors and outdoors should be a fun and regular part of every day.

- Children need to be physically active to grow up healthy
- Be a good role model for healthy eating and active living

Physical Activity Guidelines

	0-4 Years	5-11 Years
Physical Activity	at least 180 minutes at any intensity during the day (e.g., crawling, playing outside, hopping, running, dancing)	60 minutes of energetic activity spread throughout the day (e.g. bike riding, running, swimming, playground activities)

Benefits of Physical Activity

- Helps children feel great
- Builds their lifelong enjoyment of being active
- Strengthens their hearts, muscles and bones
- Builds their social skills and confidence
- It is fun family time



Quality time with children includes playing active games together and eating family meals without TV or distractions.

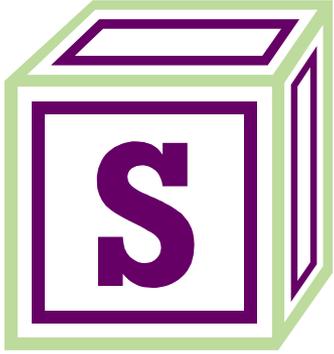
- Serve family-style meals sitting at a table
- Provide healthy food choices and encourage children to eat what you eat
- Be active as a family



Respect your child's appetite.

Let your child decide how much food to eat from the healthy choices you offer.

- Serve smaller amounts of food
- Avoid being a short order cook – children should share the family meal
- Parents should decide what foods to serve, where and when
- Children will eat when they are hungry and stop when they are full



Schedule meals and snacks at regular times.

- Have a regular schedule of 3 small meals and 2-3 snacks per day
- This ensures children are hungry, but not too hungry, when it's time to eat
- Avoid allowing children to graze



Tooth brushing is important.

- Brush your toddler's teeth and help brush your preschooler's teeth.
- Brush teeth two times a day for two minutes with a soft bristle tooth brush



Use meal and snack time as a chance to teach your children about different foods, food preparation and good table manners.

- Be a good role model; children imitate those around them
- Offer opportunities for children to help grow, buy, prepare or serve food
- Through modelling and instruction, parents teach children how to behave at the table



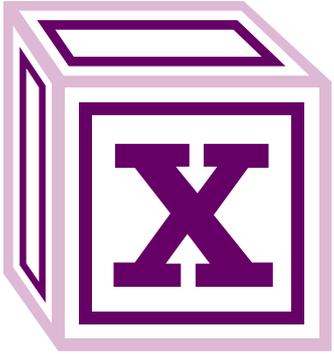
Vitamin supplements are usually not necessary, even for picky eaters.

- Eating a variety of foods from each of the four food groups is the best way for toddlers/preschoolers to get the nutrients they need
- Teach children that good nutrition comes from food, not pills
- Toddlers who are breastfed or receiving breastmilk need a daily vitamin D supplement of 400 IU until 24 months



Weight and height measurements should be taken regularly by your health care provider.

- Healthy children come in different shapes and sizes
- They grow and develop at different times and stages
- Monitor growth over time
- To see if a child is following a healthy growth pattern, have the family doctor plot the child's growth measurements on a growth chart



Expect your child's appetite to vary from day to day.

- A skipped meal every once in a while is not a concern as long as your child is growing normally



Young children are small eaters.

- They need to eat nutritious, higher fat foods like peanut butter and cheese to meet their energy needs
- Choose vegetable oils such as canola, olive and soybean oils more often
- Limit high fat foods that are poor sources of nutrients (e.g., chips, cookies, fries, donuts)



Zest for life is a toddler/preschooler!
They will explore and play, but they also
need rest.

- Every child is different
- Some sleep a lot and others much less
- Toddlers generally need 10-13 hours of sleep
- Preschoolers generally need 10-12 hours of sleep



Tips Just for Toddlers...

- By 12 months, children should be bottle free and drinking from an open cup
- A bottle should not be used past 18 months
- Children should not be go to bed with a bottle
- Sippy cups do not teach a child how to drink from a cup, they only avoid spills
- Fat restriction is not recommended; young children should be given nutritious, energy dense foods regularly such as breastmilk, cheese, avocado and fish

For More Information

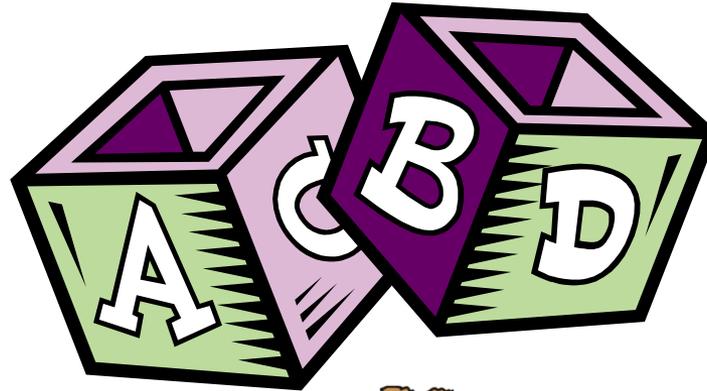
- Parent educational booklets
 - How to Build a Healthy Toddler/Preschooler
 - Eat Right. Be Active.
- EatRight Ontario
 - www.eatrightontario.ca or 1.877.510.510.2
- Key Messages Documents
- NutriSTEP® Website
 - www.nutristep.ca
 - www.nutritionscreen.ca

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This presentation has been adapted from the
NutriSTEP® program.



The ABCs of Toddler and Preschooler Nutrition



NutriSTEP[®]

Nutrition Screening
for Toddlers and Preschoolers

Eating habits and growth of toddlers and preschoolers

- Children not getting the recommended number of food group servings (Garriguet, 2004; Vanderhout et al, 2014)
- French fries are the most commonly consumed vegetable at 15-18 months of age (FITS, 2004)
- 21% of Ontario 2-5 year olds are overweight or obese (CCHS, 2004)
- >50% of Canadian 3-5 year olds have sedentary activities, such as TV viewing, that exceed 3 hours a day (Vanderhout et al, 2014)

Why screen for nutritional risk?

- Children's food choices affect:
 - growth
 - development
 - academic performance
- Eating habits are established at an early age
- Screening increases nutrition awareness with families
- Screening leads to early identification of nutrition problems → treatment

What does NutriSTEP[®] measure?

- Food and fluid intake
- Physical growth and development/weight concerns
- Factors affecting food intake and eating behaviours such as food security and the psycho-social feeding environment
- Physical activity and sedentary behaviour (screen time)

How to complete the screen

- Each of the 17 questions has 2 to 5 response options
- The parent/caregiver adds up the numbers (0-4) beside their responses to get their child's total risk score
- This takes less than 10 minutes for parents to complete
- Administrators can assist parents/caregivers complete the questionnaire (s)

The NutriSTEP[®] Score

Nutrition Risk Level*	Expected Prevalence
Low Risk (0-20)	55-75%
Moderate Risk (21-25)	11-30%
High Risk (26-68)	10 - 17%

*Risk that the child has nutrition problems

The family's next steps...

Risk Level	Next Steps
Low risk	None
Moderate risk	Phone <u>public health dietitian or public health nurse</u> for resources and information on parenting programs (eg, Ontario Early Years Centres)
High risk	Talk to a health professional such as a registered dietitian, your family doctor or a pediatrician, or contact your local public health department for more information

Families with a child at any risk level can speak to a Registered Dietitian for free at EatRight Ontario

Parent perceptions about using NutriSTEP®

- Parents like to know their child's nutrition status
- **Moderate and High Nutrition Risk**
- Reinforced importance of good eating habits
- “Good to know where to go for help”
- **Low Nutrition Risk**
- Reassured, happy, relieved

Number of times/day child eats grain products

- **Canada's Food Guide recommends:**
- Toddlers (24-35 months): 3 Food Guide servings a day
- Preschoolers (3 years): 3 Food Guide servings a day
- Preschoolers (4-5 years): 4 Food Guide servings a day

- Make at least half of the Grain Products whole grain



Number of times/day child has milk products

- Breastfeeding is recommended until age two or longer
- Cow's milk can be offered in an open cup
- Until 24 months of age serve homogenized (3.25% M.F.) milk
- At 24 months you can switch to skim, 1%, or 2%, milk
- **Canada's Food Guide recommends:**
- 500 mL (2 cups) of milk every day for adequate vitamin D
- More than 750 mL (3 cups) of milk a day can reduce a child's appetite for meals and snacks



Number of times/day child eats vegetables and fruit

- **Canada's Food Guide recommends:**
- Toddlers (24-35 months): 4 Food Guide Servings a day
- Preschoolers (3 years): 4 Food Guide Servings a day
- Preschoolers (4-5 years): 5 Food Guide Servings a day

- Offer one **dark green** and one **orange** vegetable per day (e.g., asparagus, broccoli,, spinach, carrots, squash)
- Offer a fruit or vegetable at each meal and snack



Number of times/day child eats meat, fish, poultry or alternatives

- **Canada's Food Guide recommends:**
- Toddlers & Preschoolers: 1 Food Guide Serving per day
- Choose Meat Alternatives such as beans, lentils/dahl and tofu often
- Include at least 2 servings of fish each week (e.g., char, herring, mackerel, salmon, sardines and trout)



Number of times/week child eats restaurant or take-out “fast foods”

- Fast food meals tend to be high in calories, fat, and salt, and low in fibre, vitamins and minerals
- Reduce the number of times a week young children eat fast food
- Order water, milk or 100% fruit juice as a beverage
- Order vegetables or fruit as a side

Number of times/day child has juice or flavoured beverages

- Avoid or limit juice
- Offer water when children are thirsty
- Offer vegetables and fruit instead juice
- If juice is given, offer only as part of a meal or snack in an open cup
- 125-175 mL (4-6 oz) per day of 100% fruit juice is the maximum

Difficulty buying food due to finances

- Let parent know that help is available from local community programs
- Children do not need to have special food or beverages.
- Children can eat and drink what the rest of the family is consuming

Child has problems chewing, swallowing, gagging or choking when eating

- Discuss with child's doctor or a dietitian
- Choose foods that minimize the risk for choking
- Always supervise children when they are eating
- Avoid foods that may cause choking: hot dogs, popcorn, hard candies, etc.

Child is not hungry at mealtimes because he/she drinks all day

- Schedule meals and snacks 2-3 hours apart
- Offer water between meals and snacks
- Offer 2 cups of milk per day (but no more than 3 cups)
- Limit or avoid juice

How often the child eats in a day

- Children need 3 meals plus 2-3 snacks a day
- Avoid letting child graze for food (i.e., small amounts of food or beverages many times during the day)
- Give a meal or snack every 2 to 3 hours

Respect your child's appetite. Let your child decide how much food to eat from the healthy choices you offer.

Parent doesn't let their child decide how much to eat

- Parents decide
 - What foods to offer
 - When to offer meals and snacks
 - Where their child will eat
- Parents should trust their child to decide:
 - Which foods to eat of the food offered
 - How much to eat

Respect your child's appetite. Let your child decide how much food to eat from the healthy choices you offer

Child eats meals while watching TV

- Quality time with children includes eating together without TV or other distractions (e.g., toys, games)
- Eat together as a family as much as possible
- Have child sit at the table so he/she can pay attention to eating

Child takes supplements (e.g., multivitamins, iron drops, cod liver oil)

- Vitamin and mineral supplements are usually not needed if:
- the child is eating according to Canada's Food Guide
- is growing well, and
- is healthy

Eating well comes from food, not pills.

Does child get enough physical activity?

- Ages 0-4 years: Should accumulate at least 3 hours of physical activity at any intensity spread throughout the day
- Try playing outside, walking, or dancing.
- Age 5: Should get 1 hour of moderate- to vigorous-intensity physical activity per day
- Try running, bike riding, or swimming

Number of hours/day child watches TV, uses the computer and plays video games

- Screen time should be limited
- Less is better
- Screen time is **not** recommended for toddlers under age 2
- Limit screen time to less than **1 hour** for toddlers & preschoolers 2-4 years
- Limit screen time to less than **2 hours** for children 5 years and older

Child's growth and weight

- Help the child to feel good about his/her body by praising strengths, abilities and personality
- If the parent is concerned about a child's growth, they should talk to the doctor
- Weight and height measurements should be taken regularly and plotted on a growth chart by your health care provider

Special Tips for Toddlers

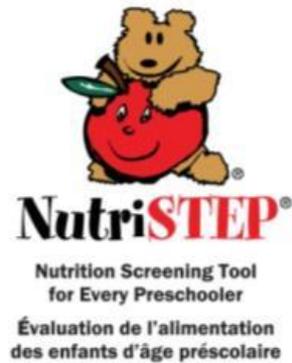
- By 12 months, your child should try to use a spoon and may try to spoon-feed himself.
- By 24 months, your child should use a utensil with little spilling.
- By 24 months, your child should eat the same foods as the rest of the family (with some extra preparation to prevent choking).
- Use open cups; sippy cups do not teach a child how to drink from a cup (they only avoid spills)
- Always supervise children when eating.

For More Information

- Parent educational booklets
 - How to Build a Healthy Toddler/Preschooler
 - Eat Right. Be Active
- EatRight Ontario
 - www.eatrightontario.ca or 1.877.510.510.2
- NutriSTEP[®] Website
 - www.nutristep.ca
 - www.nutritionscreen.ca

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APPENDIX E: TRAINING MATERIALS

E3: Resources Matched to NutriSTEP®

Resource	Author	Applicable NutriSTEP® Questions (Preschooler)																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Best Buys: Fruit	ERO																	
Best Buys: Grain Products	ERO																	
Best Buys: Meats & Alternatives	ERO																	
Best Buys: Milk & Alternatives	ERO																	
Best Buys: Vegetables	ERO																	
Canadian Physical Activity Guidelines (0-4 years)	CSEP																	
Canadian Physical Activity Guidelines (5-11 years)	CSEP																	
Canadian Sedentary Behaviour Guidelines (0-4 years)	CSEP																	
Canadian Sedentary Behaviour Guidelines (5-11 years)	CSEP																	
Eating Well with Canada's Food Guide*	HC																	
Eat Right Ontario – RD Contact Info*	ERO																	
Eat Right Ontario – Childhood Nutrition	ERO																	
Eat Right, Be Active (3-5 years)*	NRC																	
Fast Food Options: Tips for Making Healthy Choices*	DC																	
How to Build a Healthy Preschooler (3-5 years)**	ERO/NRC																	
How to Feed Your Growing Child (2-5 years)*	BS																	
Is My Child Growing Well?*	DC/CPS																	
Tips on Feeding Your Picky Toddler or Preschooler*	DC																	
5 Steps to Healthy Eating for Children Aged 4-11*	DC																	
	Local PHU/ CHC/ FHT Resources																	

*These resources are also available in French

** NRC/ERO produced the original resource (2009), and was refreshed by the NRC (2015)

E3: Resources Matched to NutriSTEP®

Toddler Resources

Eat Right, Be Active (12-36 months) - NRC

Eat Right Ontario – Childhood Nutrition - ERO

Food For Your Toddler: Explore and enjoy family foods with your child (12-24 months) - DC

Food For Your Toddler: Offer healthy drink choices (12-24 months) - DC

Food For Your Toddler: Offer meals and snacks at about the same time each day (12-24 months) - DC

Food For Your toddler: Trust your child's appetite (12-24 months) - DC

How to Build a Healthy Toddler (18-35 months)* - ERO/NRC

Sample meal plan for feeding your toddler (1-3 years)* - ERO

Author Legend

DC-Dietitians of Canada

BS-Best Start Resource Centre

CPS-Canadian Pediatric Society

ERO-EatRight Ontario

HC-Health Canada

CSEP-Canadian Society for Exercise Physiology

NRC – Nutrition Resource Centre

E4: Resources for Health Professionals

- 1. EatRight Ontario Dietitian Service:** www.eatrightontario.ca
EatRight Ontario allows you to ask nutrition-related questions and receive feedback by phone or email from a Registered Dietitian. Nutrition tools and links offer many additional resources to support you in developing healthy eating habits for you, your family, and your clients.
- 2. Dietitians of Canada Practice-based Evidence in Nutrition (PEN):** www.pennutrition.com
PEN: Practice-based Evidence in Nutrition^(R) is a dynamic knowledge translation subscription service developed by Dietitians of Canada with input from thought leaders in dietetic practice, knowledge translation and technology. The PEN service is now governed by a collaborative partnership comprised of the British Dietetic Association, the Dietitians Association of Australia and Dietitians of Canada. PEN delivers evidence-based guidance to your nutrition practice questions easily and efficiently.
- 3. Dietitians of Canada Pediatric Nutrition Network:** www.dietitians.ca
This network provides a framework for dietitians to share information on current practices and new developments in pediatrics. This is done through peer reviewed e-newsletters, a website/forum to ask questions and share expertise, and participation in the annual DC conference.
- 4. WHO Growth Charts - Resources for Health Professionals:** www.dietitians.ca
The WHO Growth Charts for Canada are recommended for monitoring and assessment of growth of Canadian infants and Children in primary care and public health by the Canadian Paediatric Society, Canadian Pediatric Endocrine Group, College of Family Physicians of Canada, Community Health Nurses of Canada and Dietitians of Canada. A Self-Instructional Training Program on the WHO Growth Charts Adapted for Canada is also available at: <http://www.dietitians.ca/growthcharts>
- 5. Ontario Society of Nutrition Professionals in Public Health (OSNPPH) – Family Health Nutrition Advisory Group (FHNAG):** www.osnpph.on.ca
The Family Health Nutrition Advisory Group develops strategies, initiatives and tools to support the Reproductive and Child Health sections of the Ontario Public Health Standards (OPHS). The group provides an opportunity to share information on current best practices and new developments in the area of family health nutrition. They also created the *Pediatric Nutrition Guidelines (Birth to Six Years) for Health Professionals*, available at: <http://www.osnpph.on.ca/membership/documents>
- 6. Canadian Paediatric Society:** www.cps.ca
The Canadian Paediatric Society is the national association of paediatricians, committed to working together to advance the health of children and youth by nurturing excellence in health care, advocacy, education, research and support of its membership.
- 7. Nutrition for Healthy Term Infants (Recommendations from Six to 24 Months):** www.hc-sc.gc.ca/fn-an/nutrition/infant-nourisson/index-eng.php
This statement by the Infant Feeding Joint Working Group provides health professionals with evidence-informed principles and recommendations. Provinces, territories, and health organizations can use it as a basis for developing practical feeding guidelines for parents and caregivers in Canada.
- 8. Canadian Society for Exercise Physiology Guidelines:** www.csep.ca/guidelines
Canada's first-ever Physical Activity Guideines and Sedentary Behaviour Guidelines were released by the Canadian Society for Exercise Physiology and ParticipACTION, with support from with support from the Children's Hospital of Eastern Ontario Research Institute, Healthy Active Living and Obesity Research Group (CHEO-HALO).

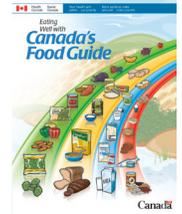
How to Build a Healthy Toddler (18-35 months)

- A** A healthy toddler starts with healthy eating, physical activity and positive self-esteem.
- B** Breastfeeding is recommended until age two or longer.
- C** Cow's milk can be offered in an open cup. Until 24 months of age, serve homogenized (3.25% M.F.) milk. At 24 months, switch to skim, 1% or 2% milk.
- D** Don't pressure or bribe your child to eat. The more a parent pushes foods, the less likely a child is to eat them.
- E** Eat with your toddler at the table. Set a good example by eating a variety of foods.
- F** Food jags are periods when children will only eat certain foods. Be patient and try not to worry, especially if your child is active, growing and healthy.
- G** Growth is affected by many things. Each child is different and can grow at different rates. It is important to watch your child's own growth pattern.
- H** Healthy bodies come in different shapes and sizes. Celebrate your child's unique qualities. Teach them to love and value themselves.
- I** Iron is important for growth. Offer a variety of iron-rich foods at each meal such as meats, fish, eggs, tofu, legumes and iron-fortified cereals.
- J** Juice should be avoided or limited to no more than 125-175 mL ($\frac{1}{2}$ - $\frac{3}{4}$ cup) a day. Offer water to quench thirst.
- K** Keep Canada's Food Guide in mind. Try to include at least three of the four food groups when planning meals.
- L** Limit screen time to less than one hour a day after two years of age. Screen time is not recommended for toddlers under two years.
- M** Milk is nutritious. Offer toddlers 500 mL (2 cups) each day. More than 750 mL (3 cups) each day can be filling and leave little room for other foods.
- N** New foods offered many times without pressure will encourage children to try them. It may take 10-15 times before they actually eat them!
- O** Offer at least one food your child likes as well as other familiar and new foods at meals.
- P** Playing actively indoors and outdoors should be a fun and regular part of every day. Try walking, skipping, running or climbing.
- Q** Quality time with children includes playing active games and eating meals together as family, without TV or other distractions.
- R** Respect your child's appetite. Let your child decide how much food to eat from the healthy choices you offer.
- S** Small stomachs mean portion sizes need to be small. As children grow, portion sizes can grow.
- T** Tooth brushing is important. Brush your child's teeth two times a day for two minutes with a soft bristle tooth brush.
- U** Use meal and snack times as a chance to teach your children about different foods, preparing foods and good table manners.
- V** Vitamin supplements are usually not needed. Toddlers who are breastfed or receiving breastmilk need a daily vitamin D supplement of 400 IU until 24 months of age.
- W** Weight and height measurements should be taken regularly and plotted on a growth chart by your health care provider.
- X** Expect your toddler's appetite to vary from day to day. Schedule meals and snacks 2½ - 3 hours apart so they come to the table hungry.
- Y** Your child should be able to feed himself by 12 months of age. Let him explore food. Expect a mess at mealtimes.
- Z** Zest for life is a toddler! They will explore and play, but they also need rest. Toddlers need 10-13 hours of sleep each day.

What Should My Toddler Have Each Day?

For toddlers 12-24 months, offer a variety of foods from each of the four food groups in Canada's Food Guide every day. Let your toddler decide how much to eat from what you provide at meal and snack times. Offer small portions (about $\frac{1}{4}$ to $\frac{1}{2}$ of a Food Guide serving) and let them ask for more if they are still hungry.

For toddlers 24 months and older, Canada's Food Guide gives recommendations on the number of servings for each food group each day. Food Guide servings can be divided into smaller amounts that are offered at different meal and snack times. Continue to offer your child small portions (about $\frac{1}{2}$ to one Food Guide serving) and let your toddler decide how much to eat.



Continue to breastfeed your toddler until age two or longer. Use the chart below to help plan meals and snacks.

Food Group	Age 24-36 Months	What Is One Food Guide Serving?
<p>Vegetables and Fruit Offer one dark green and one orange vegetable each day.</p>	4 Food Guide servings	<ul style="list-style-type: none"> 1 medium vegetable or fruit 125 mL ($\frac{1}{2}$ cup) of fresh, frozen or canned vegetables, tomato sauce 250 mL (1 cup) of leafy raw vegetables or salad
<p>Grain Products Offer whole grain products each day.</p>	3 Food Guide servings	<ul style="list-style-type: none"> 1 slice of whole grain bread $\frac{1}{2}$ bagel or small whole grain muffin $\frac{1}{2}$ pita or large tortilla 125 mL ($\frac{1}{2}$ cup) of cooked rice, bulgur, quinoa, pasta or couscous 175 mL ($\frac{3}{4}$ cup) of hot cereal 30 g of cold cereal
<p>Milk and Alternatives Offer skim, 1%, or 2% milk each day.</p>	2 Food Guide servings	<ul style="list-style-type: none"> 250 mL (1 cup) of cow's milk or fortified soy beverage 175 g ($\frac{3}{4}$ cup) of yogurt 50 g (1.5 oz) of hard cheese <p><i>Plant-based beverages other than fortified soy beverage (e.g. rice, almond, coconut) are low in nutrients required for a child's growth and are not part the Milk and Alternatives food group</i></p>
<p>Meat and Alternatives Offer alternatives such as beans, lentils and tofu often.</p>	1 Food Guide serving	<ul style="list-style-type: none"> 2 eggs 30 mL (2 Tbsp) of peanut butter or other nut butters 60 mL ($\frac{1}{4}$ cup) of shelled nuts or seeds 125 mL ($\frac{1}{2}$ cup) of cooked fish, shellfish, poultry, lean meat or game meat 175 mL ($\frac{3}{4}$ cup) of hummus, tofu or cooked legumes such as kidney beans, chickpeas and lentils

GOOD TO KNOW:

Fish is an excellent source of protein and healthy fats. Serve fish at least twice a week. Some types of fish are high in mercury, which is harmful to a child's developing brain. Serve fish that are lower in mercury and have omega-3 fats such as char, herring, mackerel, rainbow trout and salmon. To find out more about choosing fish, visit EatRight Ontario: www.eatrightontario.ca/en/Articles/Food-safety/Get-the-reel-scoop-on-fish-and-mercury.

Tips for Feeding Toddlers

A healthy snack should include at least two of the four food groups. This helps your toddler to meet her nutrient needs.

Examples include:

- Whole grain crackers and cheese
- Hummus with cucumber strips and shredded carrots
- Apple slices and cheese
- Yogurt and banana slices
- Whole grain toast with thinly spread peanut butter or avocado

Your not-so-hungry toddler

Your toddler's growth may slow down between 12-24 months of age. This may decrease her appetite. It is normal for a toddler's appetite to go up and down. Start with small portions and work towards bigger portions as your child gets older.

Choking

Cut your child's food into bite size pieces to avoid choking. Avoid hard, small and round foods, and smooth and sticky foods.

- Cut grapes and cherry tomatoes into quarters
- Cut hard raw vegetables into narrow strips.
- Thinly spread peanut or nut butters on toast.
- Avoid hotdogs, candies, popcorn and nuts.

Always supervise young children when they are eating.

Allergies

Your toddler should be able to enjoy a variety of flavours and foods from Canada's Food Guide. You don't have to delay giving your toddler certain foods.

To learn more about allergies, visit EatRight Ontario: www.eatrightontario.ca/en/Articles/Food-allergies-intolerances/Food-allergies--Intolerances.aspx

Sample Meal Plan

This menu is only a guide. Offer your child healthy foods from your family meal. Eat together as a family as often as you can. Let your child decide how much they want to eat from the foods offered.

Breakfast

- cooked egg
- whole grain toast
- sliced strawberries
- breastfeeding or cow's milk (in open cup)

Morning Snack

- graham crackers
- yogurt
- orange slices
- water

Lunch

- whole grain pasta and tomato sauce
- cooked sweet potato pieces
- leftover chicken
- breastfeeding or cow's milk (in open cup)

Afternoon Snack

- o-shaped cereal
- peach slices
- water

Supper

- baked salmon
- brown rice
- cooked broccoli
- breastfeeding or cow's milk (in open cup)

After Supper Snack

- grapes cut into quarters
- breastfeeding or cow's milk (in open cup)

GOOD TO KNOW:

What about physical activity? Eating well is important, but so is being active.

Toddlers should get at least 180 minutes of physical activity every day. Try playing outside, walking, running or dancing.

GOOD TO KNOW:

Offer water to drink at and between meals and snacks, especially when toddlers are active, and when the weather is hot. Breastfeeding is recommended until age two or longer.

For toddlers 12-24 months: If your child is not breastfed and cannot drink cow's milk, offer a soy formula or fortified, full-fat goat's milk.

For toddlers over 24 months: If your child is not breastfed and cannot drink cow's milk, offer a fortified soy beverage.

Want More Information?

EatRight Ontario

For more information on nutrition and healthy eating or to speak with a Registered Dietitian, visit EatRight Ontario at www.eatrightontario.ca or call 1-877-510-510-2.

To find a Registered Dietitian in your community visit: www.dietitians.ca/Find-A-Dietitian

Books

- *Child of Mine: Feeding with Love and Good Sense*. Ellyn Satter, 2000.
- *Secrets of Feeding a Healthy Family: How to Eat, How to Raise Good Eaters, How to Cook*. Ellyn Satter, 2008
- *Your Child's Weight ... Helping Without Harming*. Ellyn Satter, 2005.
- *Better Food for Kids: Your Essential Guide to Nutrition for all Children from Age 2 to 10*. Second Edition. J. Saab and D. Kalnins, 2010.

Websites

- Canada's Food Guide: www.canadasfoodguide.net
- EatRight Ontario: www.eatrightontario.ca
- Dietitians of Canada: www.dietitians.ca
- Healthy Canadians: www.healthycanadians.gc.ca
- Ellyn Satter Institute: www.ellynsatterinstitute.org
- Anaphylaxis Canada: www.anaphylaxis.ca
- Canadian Physical Activity and Sedentary Behaviour Guidelines: 0-4 years. www.csep.ca/guidelines
- Caring for Kids - Canadian Pediatric Society: www.caringforkids.cps.ca
- Best Start Resource Centre: www.beststart.org
- Videos - Raising Our Healthy Kids: <https://vimeo.com/raisingourhealthykids/channels>
- Video - Trust Me. Trust My Tummy. Feeding Cues: 6-24 months: <https://youtu.be/vQvEIsIQL00>

Contacts

Contact your local public health unit or community health centre for:

- More information about feeding your toddler and;
- Parent education workshops and other nutrition related supports in your community



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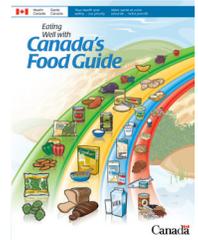
How to Build a Healthy Preschooler (3-5 years)

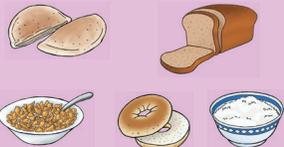
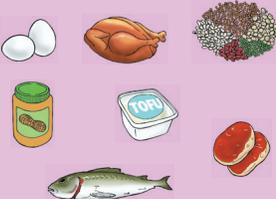
- A** A healthy preschooler starts with healthy eating, physical activity and positive self-esteem.
- B** Balanced meals include a variety of foods from at least three of the four food groups.
- C** Canada's Food Guide includes foods from the four food groups: Vegetables and Fruit; Grain Products; Milk and Alternatives; Meat and Alternatives.
- D** Don't pressure or bribe your child to eat. The more a parent pushes foods, the less likely a child is to eat them.
- E** Eat with your preschooler as often as possible. Set a good example by eating a variety of foods.
- F** Food jags are periods when children will only eat certain foods. Be patient and try not to worry, especially if your child is active, growing and healthy.
- G** Growth is affected by many things. Each child is different and can grow at different rates. It is important to watch your child's own growth pattern.
- H** Healthy bodies come in different shapes and sizes. Celebrate your child's unique qualities. Teach them to love and value themselves.
- I** Iron is important for growth. Offer a variety of iron-rich foods at each meal such as meats, fish, eggs, tofu, legumes and iron-fortified cereals.
- J** Juice should be avoided or limited to no more than 125-175 mL ($\frac{1}{2}$ - $\frac{3}{4}$ cup) a day. Offer water to quench thirst.
- K** Keep a variety of healthy, ready-to-eat snacks available such as fresh fruit, cut-up vegetables, yogurt, cereal and milk.
- L** Limit screen time to less than one hour a day for children 3 to 4 years and less than two hours a day for children 5 years. Less is better!
- M** Milk is nutritious. Offer preschoolers 500 mL (2 cups) each day. More than 750 mL (3 cups) each day can be filling and leave little room for other foods.
- N** New foods offered many times without pressure will encourage children to try them. It may take 10-15 times before they actually eat them!
- O** Offer at least one food your child likes as well as other familiar and new foods at meals.
- P** Playing actively indoors and outdoors should be a fun and regular part of every day. Try walking skipping, running or climbing.
- Q** Quality time with children includes playing active games and eating meals together as family, without TV or other distractions.
- R** Respect your child's appetite. Let your child decide how much food to eat from the healthy choices you offer. Let him feed himself.
- S** Schedule meals and snacks $2\frac{1}{2}$ - 3 hours apart so that children come to the table hungry and interested in eating. They are more likely to try new foods when they are hungry.
- T** Tooth brushing is important. Help brush your child's teeth two times a day for two minutes with a soft bristle tooth brush.
- U** Use meal and snack times as a chance to teach your children about different foods, preparing foods and good table manners.
- V** Vitamin supplements are usually not needed, even for picky eaters. Eating well comes from food, not pills.
- W** Weight and height measurements should be taken regularly and plotted on a growth chart by your health care provider.
- X** Expect your preschooler's appetite to vary from day to day.
- Y** Young children are small eaters. They need to eat nutritious, higher fat foods like peanut butter, cheese and avocado to meet their energy needs.
- Z** Zest for life is a preschooler! They will explore and play, but they also need rest. Preschoolers need 10-12 hours of sleep each day.

What Should My Preschooler Have Each Day?

Canada's Food Guide gives recommendations on the number of servings for each food group each day for preschoolers. Food Guide Servings can be divided into smaller meals and snacks that are offered every 2 ½ to 3 hours. Offer your child small portions (about ½ to one Food Guide serving) at meals and snacks and let your preschooler decide how much to eat.

Use the chart below to help plan meals and snacks.



Food Group	Age 3	Ages 4&5	What Is One Food Guide Serving?
Vegetables and Fruit Offer one dark green and one orange vegetable each day. 	4 Food Guide servings	5 Food Guide servings	<ul style="list-style-type: none"> • 1 piece of fruit • 125 mL (½ cup) of fresh, frozen or canned vegetables, tomato sauce • 250 mL (1 cup) of leafy raw vegetables or salad
Grain Products Offer whole grain products each day. 	3 Food Guide servings	4 Food Guide servings	<ul style="list-style-type: none"> • 1 slice of whole grain bread • 1/2 bagel or small whole grain muffin • 1/2 pita or large tortilla • 125 mL (1/2 cup) of cooked rice, bulgur, quinoa, pasta or couscous • 175 mL (3/4 cup) of hot cereal • 30 g of cold cereal
Milk and Alternatives Offer skim, 1% or 2% milk each day. 	2 Food Guide servings	2 Food Guide servings	<ul style="list-style-type: none"> • 250 mL (1 cup) of cow's milk or fortified soy beverage • 175 g (3/4 cup) of yogurt • 50 g (1.5 oz) of hard cheese <p><i>Plant-based beverages other than fortified soy beverage (e.g. rice, almond, coconut) are low in nutrients required for a child's growth and are not part the Milk and Alternatives food group.</i></p>
Meat and Alternatives Offer alternatives such as beans, lentils and tofu often. 	1 Food Guide serving	1 Food Guide servings	<ul style="list-style-type: none"> • 2 eggs • 30 mL (2 Tbsp) of peanut butter or other nut butters • 60 mL (1/4 cup) of shelled nuts or seeds • 125 mL (1/2 cup) of cooked fish, shellfish, poultry, lean meat or game meat • 175 mL (3/4 cup) of hummus, tofu or cooked legumes such as kidney beans, chickpeas and lentils

GOOD TO KNOW:

Fish is an excellent source of protein and healthy fats. Serve fish at least twice a week. Some types of fish are high in mercury, which is harmful to a child's developing brain. Serve fish that are lower in mercury and have omega-3 fats such as char, herring, mackerel, rainbow trout and salmon. To find out more about choosing fish, visit EatRight Ontario: www.eatrightontario.ca/en/Articles/Food-safety/Get-the-reel-scoop-on-fish-and-mercury.

Tips for Feeding Preschoolers

A healthy snack should include at least two of the four food groups. This helps your preschooler to meet her nutrient needs.

Examples include:

- Whole grain crackers and cheese
- Hummus with cucumbers and peppers
- Apple slices and cheese
- Yogurt and banana slices
- Whole grain toast with thinly spread peanut butter or avocado
- Whole grain cereal with milk

Choking

Cut your child's food into bite size pieces to avoid choking. Avoid hard, small and round foods, and smooth and sticky foods.

- Cut grapes and cherry tomatoes into quarters
- Cut hard raw vegetables into narrow strips.
- Thinly spread peanut or nut butters on toast.
- Avoid hotdogs, candies, popcorn and nuts.

Always supervise young children when they are eating.

A Sample Meal Plan

This menu is only a guide. Offer your child healthy foods from your family meal. Eat together as a family as often as you can. Let your child decide how much they want to eat from the foods offered.

Breakfast

- whole grain toast
- cooked egg
- banana
- milk

Morning Snack

- whole grain crackers
- orange slices
- water

Lunch

- tuna salad on whole grain bread
- cucumber slices and carrot strips
- milk
- fruit salad

Afternoon Snack

- yogurt
- pear slices
- water

Supper

- baked chicken
- brown rice
- cooked peas
- milk
- apple slices

After Supper Snack

- cereal
- milk



GOOD TO KNOW:

Offer water to drink at and between meals and snacks, especially when preschoolers are active, and when the weather is hot. Offer water and other drinks in an open cup.

Breastfeeding is encouraged. Continue to breastfeed for as long as both you and your child want.

GOOD TO KNOW:

What about physical activity? Eating well is important, but so is being active.

Children age 3 and 4 years should get at least 180 minutes of physical activity every day. Try playing outside, walking, running or dancing.

Children age 5 years should get at least 60 minutes of moderate to vigorous intensity physical activity every day. Try going to the playground, biking, skating or swimming.

Want More Information?

EatRight Ontario

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- *Your Child's Weight ... Helping Without Harming*. Ellyn Satter, 2005.
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- Anaphylaxis Canada: www.anaphylaxis.ca
- Canadian Physical Activity and Sedentary Behaviour Guidelines: 0-4 and 5-11 years. www.csep.ca/guidelines
- Caring for Kids - Canadian Pediatric Society: www.caringforkids.cps.ca
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Contacts

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- Parent education workshops and other nutrition related supports in your community



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For more information visit www.nutristep.ca and www.nutritionscreen.ca

F1: Situational Assessment Template

Implementation of NutriSTEP® - How would it look in your community?

Is there a need to address child health/nutrition issues in your agency or community?

How can NutriSTEP® be promoted to the health, education and social service professionals who can make it available to parents?

Who can make NutriSTEP® available to parents? What will these professionals need in order to incorporate NutriSTEP® into their work?

What supports will those professionals need to understand NutriSTEP® (uses and limitations) and to offer guidance to the parents who have completed it?

Is it possible for your agency to implement a program that is directed to parents or caregivers?

Does your agency reach out directly to parents and caregivers in your jurisdiction?

If not through your agency, can/do you work through other front line organizations that reach out to parents and caregivers in your jurisdiction?

Keeping in mind that NutriSTEP® is intended to be totally parent-administered, what systems need to be in place at the provincial or local level when a problem is identified?

F1: Situational Assessment Template

What resources (e.g., money, printed materials, staff, promotional items, etc.) would your agency need to be able to promote/implement/follow-up on (as appropriate to your mandate) nutrition screening for toddlers/preschoolers in your community?

What kind of follow-up is available to address high nutritional risk issues with preschoolers in your community (e.g., family physicians, walk-in clinics, dietitian-staffed drop-in centers, public health nutrition programs?)

Are there important gaps in service that will need to be addressed? What are some of the potential solutions (minimum? ideal care?) to ensure the high-risk children receive the intervention they need?

What other kinds of challenges can you envision to the implementation of a toddler/preschool nutrition screening program, such as NutriSTEP® in your community (e.g., perception of need among preschoolers, language barriers, cultural practices or attitudes, level of trust/interaction between community groups and agency)?

Bringing Nutrition Screening to Toddlers & Preschoolers with NutriSTEP®

[logos]



NUTRITION
RESOURCE
CENTRE
CENTRE DE
RESSOURCES
EN NUTRITION

Overview

- Toddler & preschool nutrition concerns
 - Nutrition screening & assessment
 - Ethical issues in nutrition screening
 - NutriSTEP[®] program
 - Development of NutriSTEP[®]
 - Using NutriSTEP[®] in your community
 - Other activities and further steps
-

Nutrition Concerns

■ Canadian Community Health Survey (2004)

- 54% of toddlers and 31% of 4-8 year olds met CFG recommendations for vegetables & fruit
- Milk and milk products were less than CFG recommendations

■ Quebec 4 year olds (2002)

- Below daily CFG recommendations: 21% vegetables & fruit, >50% milk, 61% meat
- 85% offered pop, fruit or sport drinks regularly; 20% having daily; 9% consuming ≥ 3 times/day
- Fast foods, 72% \geq once/week



Nutrition Concerns

- **Alberta 4-5 year olds (2012)**
 - Below CFG recommendations:
30% vegetables & fruit; 24% grains
 - Weekly servings of “choose least often”: 79%
- **Nutri-eSTEP (2014)**
 - ~50% of toddlers and preschoolers did not meet CFG recommendations for grains
 - ~50% of preschoolers did not meet CFG recommendations for fruits



Physical Growth Concerns

- **Increase in proportion of Canadian children who are overweight/obese**
 - In 1978, 21% of 2-5 year olds were overweight
 - In 1978, 0% of 2-5 year olds were obese

 - In 2004, 21% of 2-5 year olds were overweight/obese
 - In 2004, 6% of 2-5 year olds were obese

 - In 1978, 13% of 6-11 year olds were overweight
 - In 1978, 0% of 6-11 year olds were obese

 - In 2004, 26% of 6-11 year olds were overweight/obese
 - In 2004, 8% of 6-11 year olds were obese

Nutrition Screening

- The process of identifying factors known to be associated with dietary or nutritional problems
 - The purpose is to differentiate individuals who are at risk of, or who have, poor nutritional status
 - The first step in addressing nutrition problems through further assessment and treatment
-

Nutrition Assessment

- Comprehensive approach to determine nutritional status
 - Purpose is to assess or clarify a previously-identified nutrition problem and/or unhealthy risk factor behaviours related to nutrition
 - Involves medical, nutrition and medication histories, physical examinations, anthropometric measurements, and laboratory tests
-

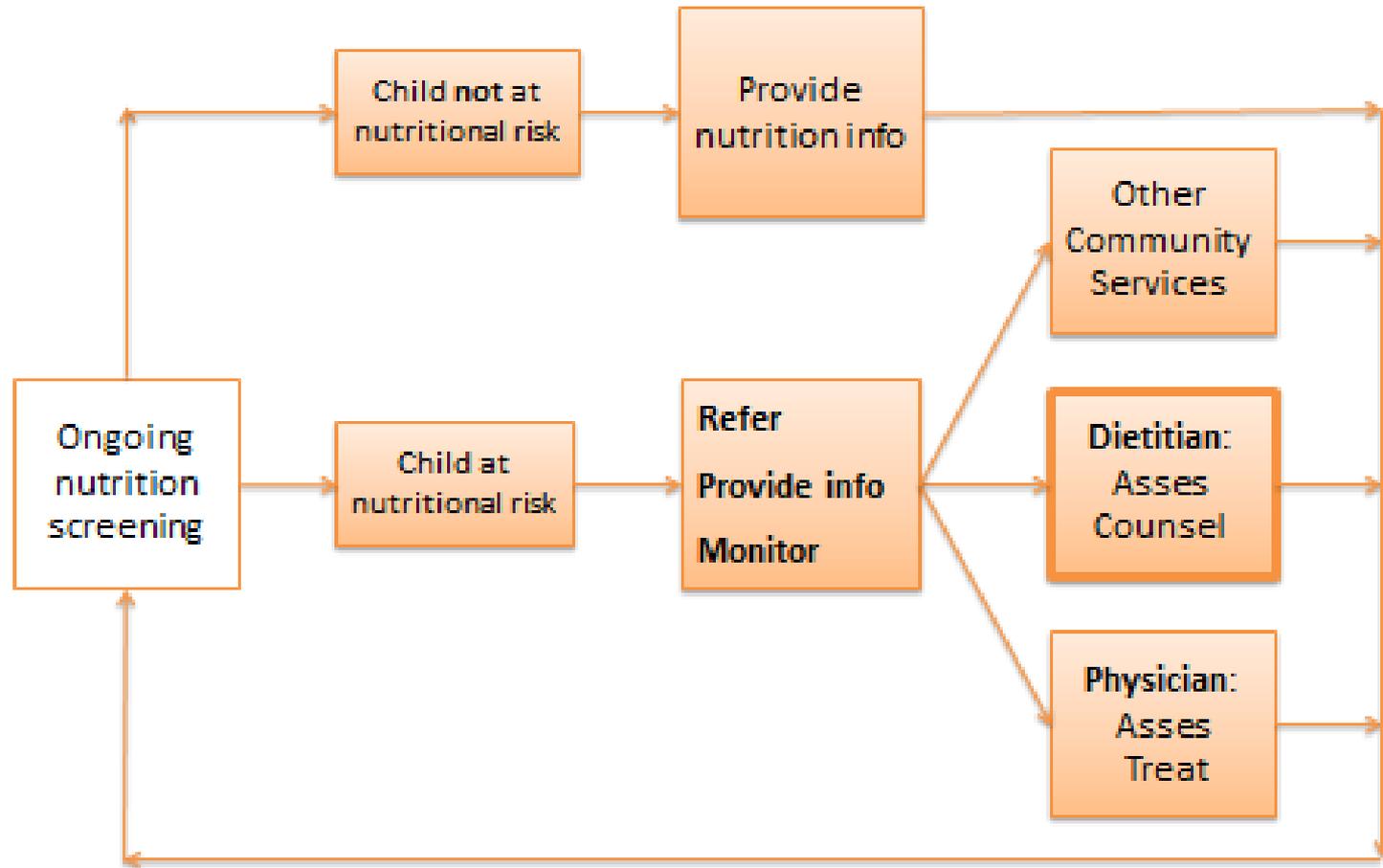
Why Screen For Nutritional Risk?

- Raise awareness and knowledge
 - Promote early intervention
 - Target children at risk
 - Streamline referral process
 - Prioritize services
 - Identify needs within a population
-

What is “Ethical” Nutrition Screening?

- Targeting of screening to the right people
- Identification of nutrition problems and appropriate course of action (e.g. assessment, resources)
- Having a referral/resource framework that meets needs
- Including follow-up after screening

Ethical Nutrition Screening



NutriSTEP® is ...

- A nutrition screening program for young children
- Two 17-item questionnaires that can be completed by parents in ~5 minutes
 - Toddler NutriSTEP® (18-35 months)
 - Preschool NutriSTEP® (3-5 years)



NutriSTEP® is ...

- Nutri-eSTEP
 - Dietitians of Canada website
 - Online versions of the NutriSTEP® questionnaires
 - Feedback messages
 - Link to resources
 - www.nutritionscreen.ca



NutriSTEP® is ...

- Nutrition Education
 - How to Build a Healthy Toddler
 - How to Build a Healthy Preschooler
- Primers for Registered Dietitians
 - Preschool nutrition



NutriSTEP® is ...

- Knowledge Translation
 - NutriSTEP® website www.nutristep.ca
 - NutriSTEP® Implementation Toolkit
 - NutriSTEP® online community



NutriSTEP® is ...

- Targeted implementation studies (2007-2011)
 - Kindergarten registration
 - Preschool screening program
 - Best Start hubs
 - Family Health Teams
 - Immunization clinics

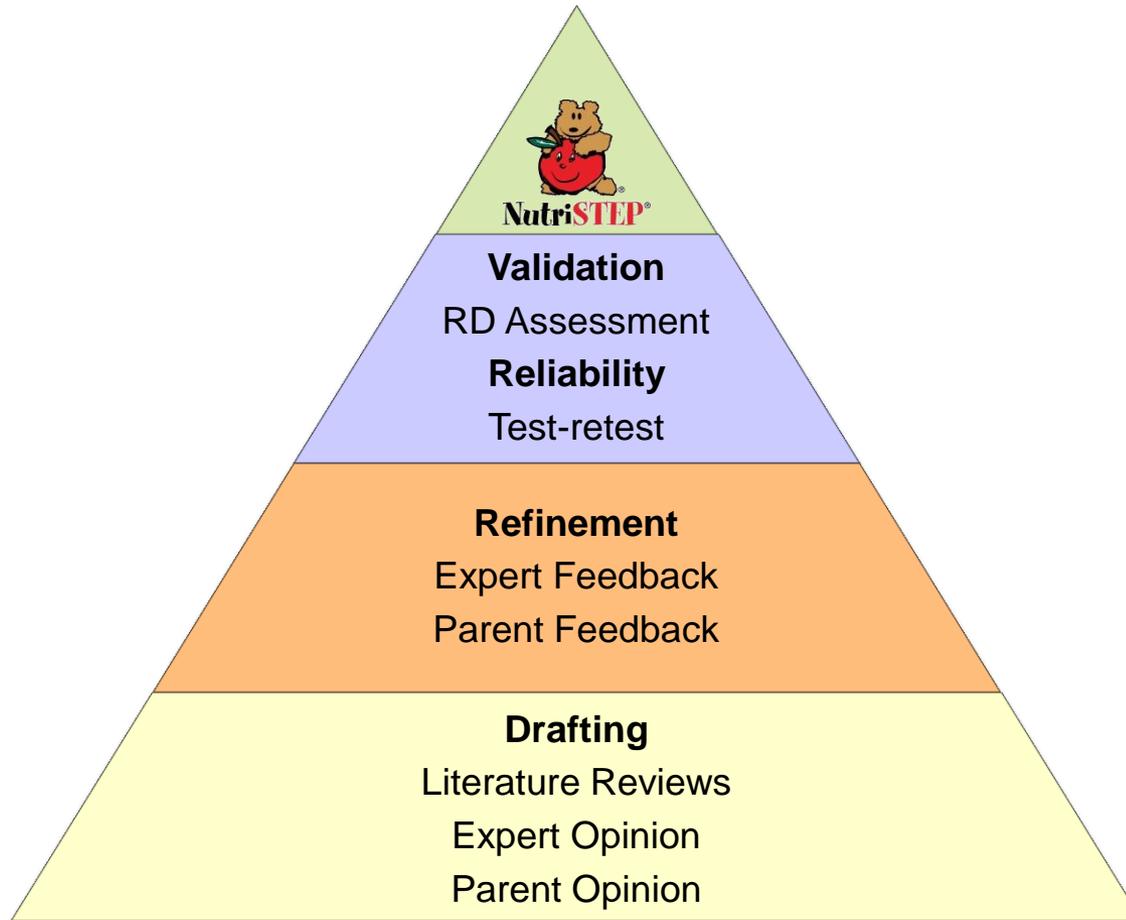


NutriSTEP® is ...

- Implementation
 - Ontario: Accountability Indicator (2014)
 - New Brunswick: universal screening since 2011



Screening Starts With Valid & Reliable Questionnaires



Nutrition Screening Tool for Every Preschooler



Instructions

- Below are questions about your preschool child's (3 to 5 year old) eating and other habits.
- Think about your child's every day habits when answering. Check (✓) only one answer for each question.
- There is a number from 0 to 4 beside each answer. This number is a score for that question. At the bottom of each page is a box for the score for the page. For each page, add up the scores for each question.
- At the end of the questionnaire, you will add the page scores to get the total score.

1. My child usually eats grain products:

Examples are bread, bagel, bun, cereal, pasta, rice, roti and tortillas.

- 0 More than 5 times a day
 1 4 to 5 times a day
 2 2 to 3 times a day
 4 Less than 2 times a day

2. My child usually has milk products:

Examples are white or chocolate milk, cheese, yogurt, milk puddings or milk substitutes such as fortified soy beverages.

- 0 More than 3 times a day
 1 3 times a day
 2 2 times a day
 4 Once a day or less

3. My child usually eats fruit:

- 0 More than 3 times a day
 1 3 times a day
 2 2 times a day
 3 Once a day
 4 Not at all

Total Score for Page 1



Child's Name: _____		Phone Number: _____	
Child's Gender: <input type="checkbox"/> Female <input type="checkbox"/> Male		Postal Code: _____	
Child's Date of Birth: _____ (Day / Month / Year)		Screen Date: _____ (Day / Month / Year)	
Screen Location/Organization: _____			

Nutrition Screening Tool for Every Toddler

Instructions

Below are questions about your toddler's (18 to 35 months old) eating and other habits.

- Think about your child's every day habits when answering. Check (✓) only one answer for each question.
- There is a number from 0 to 4 beside each answer. This number is a score for that question. At the bottom of each page is a box for the score for the page. For each page, add up the scores for each question.
- At the end of the questionnaire, you will add the page scores to get a total score.

1. My child usually eats grain products:

Examples are bread, bagels, buns, roti, tortillas, crackers, hot or cold cereals, pasta, and rice.

- 0 More than 5 times a day
 1 4 to 5 times a day
 2 2 to 3 times a day
 4 Less than 2 times a day

2. My child usually has milk products:

Examples are breastmilk, formula, white or chocolate milk, cheese, yogurt, milk pudding and milk substitutes, such as fortified soy beverages.

- 0 More than 3 times a day
 1 3 times a day
 2 2 times a day
 4 Once a day or less

3. My child usually eats vegetables and fruit:

These can be fresh, frozen or canned.

- 0 More than 4 times a day
 1 3 to 4 times a day
 2 2 times a day
 3 Once a day
 4 Not at all

Total Score for Page 1

Drafting NutriSTEP®

- Literature reviews and national, provincial and local professional nutrition and pediatric consultations
 - Consultations with parents
 - Preschool version: feasibility study, focus groups, key intercept interviews (1998-2000)
 - Toddler version: focus groups (2010)
 - Nutritional risk attributes identified
 - Initial questionnaire design and questions developed
 - Preschool version started at 27 questions
 - Toddler version started at 21 questions
-

Nutrition Risk Attributes

- **Food & fluid intake**
 - Frequency of intake of foods and fluids
 - **Physical growth & development/weight concerns**
 - Weight and height; oral motor skills; parent's comfort level with growth
 - **Factors affecting food intake and eating behaviours**
 - Food security; psycho-social feeding environment
 - **Physical activity & sedentary behaviour**
 - Indoors and outdoors; screen time
-

Refinement of NutriSTEP®

- **Preschool version**
 - Sudbury refinement (2001)
 - Ontario refinement (2002-2003)
 - National refinement (2002-2004)
 - **Toddler version**
 - Ontario refinement (2010-2011)
 - Southern Ontario, Thunder Bay, Sudbury
-

Reliability of NutriSTEP®

- Preschool version
 - 140 parents completed the questionnaire on two separate occasions
 - Toddler version
 - 141 parents completed the questionnaire on two separate occasions
-

Validation of NutriSTEP®

- Preschool version (2004-2006)
 - Comprehensive nutritional assessment of 269 preschoolers by Registered Dietitians
 - Scores on NutriSTEP® compared to scores by 3 RDs
 - Toddler version (2010)
 - Comprehensive nutritional assessment of 200 toddlers by a Registered Dietitian
 - Scores on NutriSTEP® compared to scores by 1 RD
-

Nutri-eSTEP

- Online access to NutriSTEP® screening
 - Dietitians of Canada website (www.nutritionscreen.ca)
 - Parents complete online versions of NutriSTEP®
 - Parents receive immediate results
 - What is going well
 - What to work on
 - Comprehensive feedback messages based on results
 - Links to trusted and credible resources

Parent Nutrition Education Booklets

Prevalence of Nutrition Risk

- Approximately 15-16% of children are at high risk and should receive further nutrition assessment and interventions
 - A further 12-17% of children would benefit from social and community services to improve their diet and health habits and reduce their nutrition risk
-

Implementation of NutriSTEP®

- Community approach
 - Community service providers
 - Young children and their families
 - Referral mapping
 - Comprehensive referral process is needed
 - Public health programs, services and resources
-

Steps Towards Implementation

- Select a site coordinator
 - Use NutriSTEP[®] Implementation Toolkit
 - Train those involved in the process
 - Identify resources to meet needs
 - Develop referral maps for services
 - Monitor and evaluate process and outcomes
 - Use results to inform practice and service delivery
-

NutriSTEP® Screening Models

- Kindergarten orientation events
 - Pre-kindergarten orientation days
 - Electronic Medical Record (EMR)
 - Parent and Child Drop-in Playgroup
 - Junior kindergarten classes
 - Screening Clinics
 - 18-month well-baby visits
-

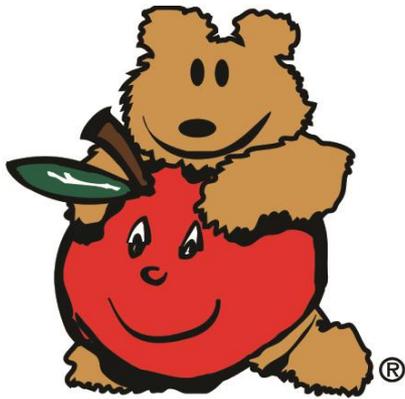
Other Activities

Further Steps

- NutriSTEP[®] development with school-aged children (6-11 years)
 - Testing of efficacy and effectiveness of preschool nutrition screening
 - Database development for NutriSTEP[®] data
 - NutriSTEP[®] incorporation into electronic medical records
 - Population health surveillance
-

For More Information

- **NutriSTEP® Website:**
www.nutristep.ca
 - **NutriSTEP® Research Team Lead:**
 - Janis Randall Simpson, University of Guelph
 - rjanis@nutristep.ca
 - **Nutrition Resource Centre:**
www.nutritionrc.ca
-



NutriSTEP[®]

**Nutrition Screening
for Toddlers and Preschoolers**

F3: Sample Article for Physician Newsletter

The NutriSTEP® questionnaires for toddlers (18-35 months) and for preschoolers (3-5 years) are valid and reliable 17-item nutrition risk (e.g., obesity, iron deficiency) screening tools for parents to complete about their toddlers or preschoolers. Each question has up to 5 scored feedback responses with a maximum possible score of 68. The Toddler NutriSTEP® is available in English, French and Spanish. The Preschool NutriSTEP® is available in English, French, Simplified Chinese, Traditional Chinese, Punjabi, Spanish, Tamil and Vietnamese. Licences for the pdf versions of the NutriSTEP® questionnaires are available at: www.Flintbox.com. The questionnaires are also available for parents (English and French) on the Dietitians of Canada website (www.nutritionscreen.ca) as Nutri-eSTEP, along with accompanying credible and relevant feedback messages and links to credible resources for parents.

The NutriSTEP® questionnaires have three levels of nutrition risk scores with follow-up guidelines for parents.

- Children whose risk score is less than 20 are at low risk and require no immediate follow-up.
- Parents of children whose risk score is 21-25 are at moderate risk and are encouraged to refer to educational materials such as the brochures "How to Build a Healthy Toddler" and "How to Build a Healthy Preschooler" available in pdf form at: www.nutritionrc.ca. As well parents will be directed to a number of provincial and community programs such as EatRight Ontario (www.eatrightontario.ca), and the provincial toll-free Dietitian Advisory Service (1-877- 510-510-2), [health unit/community health centre contact person], etc.
- Parents of children whose risk score is 26 or greater are at high risk and are encouraged to talk to a health professional such as their child's doctor or a Registered Dietitian. From the validation research conducted previously, the expected prevalence of high risk children is approximately 10%.

NutriSTEP® is an accountability indicator for public health in Ontario through the Ministry of Health and Long Term Care (MOHLTC). Accountability indicators are used to measure the performance of public health programs and services; all public health units in Ontario are mandated to use NutriSTEP® for nutrition risk screening as of April, 2014. Support for some aspects of the the NutriSTEP® program is through the Nutrition Resource Centre (www.nutritionrc.ca). This includes providing up to date resources such as the NutriSTEP® Implementation Toolkit and its support materials ("How to Build a Healthy Toddler" and "How to Build a Healthy Preschooler").

If you would like to know more about NutriSTEP® please go to www.nutristep.ca or contact [local contact person] at [local contact information].

[specify organization/agency, community/ site implementing NutriSTEP®] will be coordinating the implementation of NutriSTEP® as of [start date] in our community.

F4: Sample Letter to Physicians

[agency letterhead]

[Date]

Dear Physician,

You are getting this notice because some of your patients and/or colleagues may ask you about NutriSTEP®. The NutriSTEP® questionnaires are valid and reliable 17-item nutrition risk (e.g., obesity, iron deficiency) screening questionnaires for parents to complete about their toddlers (18-35 months) or preschoolers (ages 3-5 years). Each question has up to five scoring categories with the maximum score of 68 for the entire questionnaire.

The NutriSTEP® questionnaires are accountability indicators for public health in the province of Ontario through the Ministry of Health and Long Term Care. Accountability indicators are used to measure the performance of public health programs and services; all public health units in Ontario are mandated to use NutriSTEP® for nutrition risk screening as of April, 2014. If parents ask you about their child's NutriSTEP® score or the nutrition of their child, there are educational resources available for parents at www.eatrightontario.ca. There is also additional information about healthy eating for toddlers/preschoolers at [insert local health unit website]. You can also suggest that parents call a Registered Dietitian or Public Health Nutritionist/Dietitian at [local health unit/community health centre with contact information]. The NutriSTEP® questionnaires are also available on the Dietitians of Canada website (Nutri-eSTEP) (www.nutritionscreen.ca); these versions are accompanied by appropriate and relevant feedback messages for each question and also links to credible resources.

NutriSTEP® has three levels of nutrition risk scores with follow-up guidelines for parents. Children whose risk score is less than 20 are at low risk and require no immediate follow-up. Parents of children whose risk score is 21-25 are at moderate risk and are encouraged to refer to the educational booklet provided with the questionnaire and can contact a registered dietitian at [local health unit/community health centre]. Parents of children whose risk score is 26 or greater are at high risk and are encouraged to talk to a health professional such as their child's doctor or a Registered Dietitian. The expected prevalence of high risk children is 16-17%, based on a sample of ~4000 parents who completed the online Nutri-eSTEP versions

If you would like to know more about NutriSTEP® please go to [insert local health unit contact web site or contact information] or [insert local site coordinator, contact information]

Sincerely,

[local site coordinator; Medical Officer of Health; Executive Director; etc]

Appendix F5: Logo Templates



NutriSTEP[®]
Nutrition Screening
for Toddlers and Preschoolers



NutriSTEP[®]



NutriSTEP[®]

Development to Date

Preschool NutriSTEP® Development (1998-2008)
NutriSTEP® Website Development (2009)
Toddler NutriSTEP® Development (2010-2012)
Nutri-eSTEP Development (2012-2013)
Proposed SchoolAge NutriSTEP® Development (2015-2018)

For More Information

- NutriSTEP® Website:
www.nutristep.ca
- Nutri-eSTEP Website:
www.nutritionscreen.ca
- For Licenses:
www.flintbox.com
- Past project updates and documents:
www.sdhu.ca

Acknowledgements

The NutriSTEP® program has been led by dietitian researchers from the University of Guelph and the Sudbury & District Health Unit.

The original NutriSTEP® development was funded by the Canadian Institutes of Health Research (CIHR), the Ontario Public Health Research, Education and Development (PHRED) Program, City of Greater Sudbury, Ontario Early Years Challenge Fund, Health Canada (Population Health Fund), The Ontario Ministry of Health and Long-Term Care, the Ontario Ministry of Health Promotion.

The development of Toddler NutriSTEP® and Nutri-eSTEP were funded by the Canadian Institutes of Health Research. Implementation research was funded by the Danone Institute of Canada.

Bringing Nutrition Screening to Ontario with NutriSTEP®



NutriSTEP®

**Nutrition Screening
for Toddlers and Preschoolers**

NutriSTEP® is...

- A nutrition risk screening index for toddlers (18-35 months) and preschoolers (3 to 5 years)
- A questionnaire that parents can complete in 5 minutes

Screening for Nutritional Risk...

- Leads to early identification and prevention of nutrition problems
- Increases nutrition awareness among families and providers
- Means treatment can occur, reducing serious consequences
- Helps to manage scarce community resources

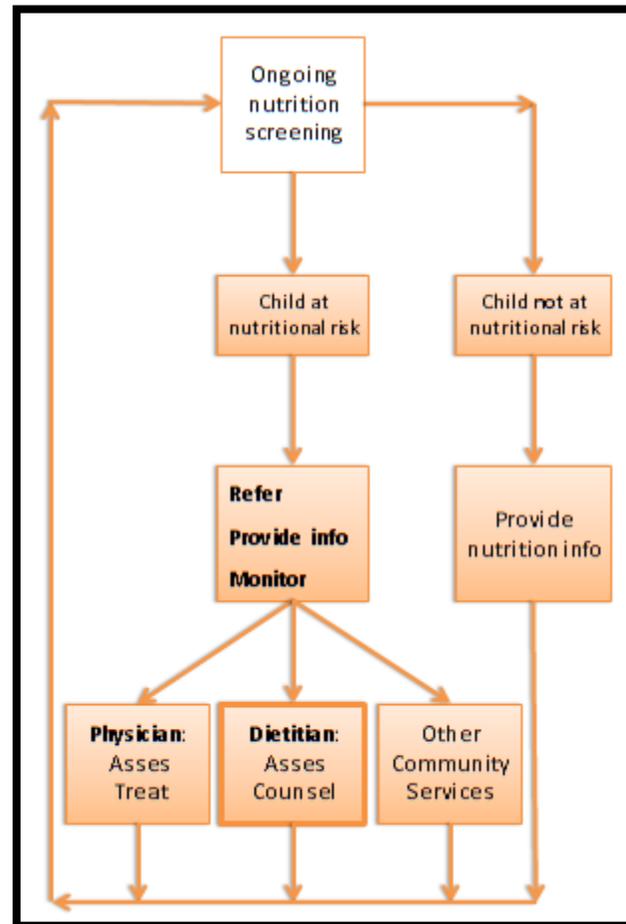
NutriSTEP® Scores and Prevalence

Based on validation work, NutriSTEP® identified approximately 10% of children at high risk who should receive further nutrition assessment and interventions. A further 23 to 33% of children would benefit from social and community services to improve their diet and health habits and reduce nutrition risk [1]

Based on a sample of ~4000 Canadian children, NutriSTEP® identified approximately 17% of toddlers and preschoolers at high risk who should receive further nutrition assessment and interventions [2]

What is Ethical Nutrition Screening?

- Targets screening to the right people
- Identifies nutrition problems and appropriate course of action (e.g., assessment, resources)
- Has a referral/resource framework that meets needs
- Includes follow-up after screening



- [1] *Randall Simpson et al, 2008*
European Journal of Clinical Nutrition
- [2] *Vanderhout et al, 2014*

Primary Sites for Screening

- School board/kindergarten registration
- Health fairs or screening fairs
- Toddler and preschooler play groups
- Primary health care settings (Family Health Teams)
- Parent education programs

Steps Toward Implementation

- Select a site coordinator
- Use NutriSTEP® Implementation Toolkit
- Train those involved in the process
- Identify resources to meet needs
- Develop referral maps for services
- Monitor and evaluate process and outcomes
- Use results to inform practice and service delivery

Nutrition Screening Models

- Pre-kindergarten orientation days
- Kindergarten orientation events
- Junior kindergarten classes
- Electronic Medical Record (EMR)
- Parent and Child Drop-in Playgroup
- Screening Clinics
- 18-month well-baby visits

NutriSTEP®

Nutrition Screening for Toddlers and Preschoolers



What is NutriSTEP®?

NutriSTEP® is a checklist about young children. Parents answer questions about their child's eating and physical activity habits.

NutriSTEP® stands for **N**utrition **S**creening **T**ool for **E**very **P**reschooler as the original 2008 version of NutriSTEP was for preschoolers (ages 3-5 years).

In 2012, a Toddler NutriSTEP® (Nutrition Screening Tool for Every Toddler) was released for children 18-35 months of age.

Why is there concern about children's nutrition?

Young children experience a lot of growth and development. These years are also when their eating and other health habits are being formed.

If there are unhealthy habits developing, identifying those nutrition concerns at an early age helps parents and caregivers before the child starts school.

What is nutrition screening?

Nutrition screening is a fast and simple way of finding out if there is a nutrition concern. Parents or caregivers can complete a checklist such as NutriSTEP® in five minutes and review the eating and physical activity habits of their child or children.



What is Nutri-eSTEP?

Nutri-eSTEP is the online version of NutriSTEP®. Parents and caregivers can complete the NutriSTEP® questionnaires online at www.nutritionscreen.ca

Parents and caregivers can learn what is going well, where there is room for improvement, and where to find trusted healthy eating information and tools when it comes to the nutrition of their child or children.

Where can I get more information?

In XXX, NutriSTEP® screening is done by XXXX.

Please contact:

G1: Data Entry Instructions

NutriSTEP® Data Entry Templates

In this Appendix, there are EXCEL™ data entry template files for both the Toddler and the Preschool NutriSTEP® questionnaires.

For each template, the coding for each response on the questionnaires is provided within the spreadsheet.

For missing responses, enter 99. This ensures that the data entry is complete and that a question has not been missed. The 99s can be changed for later data analysis. Ideally, there would be no missing data.

There are two sets of variable names for each question. One set of variable names is descriptive. The other set of variable names can be used for data analysis in a statistics program such as SPSS or SAS.

For data analysis purposes, the first several rows of information would need to be deleted, leaving the top row with SPSS/SAS variable names for importing into a statistics program.

For accuracy, it is recommended that data be entered twice into two separate files and then using a subtraction procedure (or other spreadsheet function) to identify cells where the results of the subtraction are not zero (0).

G2 - TODDLER DATA ENTRY TEMPLATE (Excel)

Enter child's last name Enter child's first name M=male F=female Enter full postal code Enter full date of birth Enter full date of screening Enter location 0= More than 5 times a day
 1= 4 to 5 times a day
 2= 2 to 3 times a day
 4=Less than 2 times aday 99=no answer 0= More than 3 times a day
 1= 3 times a day
 2= 2 times a day
 4= Once a day or less 99=no answer 0= More than 4 times a day
 1= 3 to 4 times a day
 2= 2 times a day
 3= Once a day
 4= Not at all
 99=no answer

Child's last name	Child's first name	Gender of child	Full postal code	Child's date of birth	Date of Screening	Screening location	Q 1 NutristepGrain	Q 2 NutristepMilk	Q 3 NutritstepFruitVeg
LASTNAME	FIRSTNAME	GENDER	POSTAL	DOB	DATE	LOCATI ON	GRAIN	MILK	FRUITVEG

0

0

0

4= Less than 2 times a day 0= Always 4= Always 4= 4 or more hours a day 0= Yes 4= Should weight more
 3= 2 times a day 1= Most of the time 3= Most of the time 3= 3 hours a day 4= No 0= Is about the righth weight
 1= 3 to 4 times a day 2= Sometimes 2= Sometimes 2= 2 hours a day 2= Not sure 3= Should weight less
 0= 5 to 6 times a day 3= Rarely 1= Rarely 1= 1 hour a day 2= Not sure 2= Not sure
 2= More than 6 times a day 4= Never 0= Never 0= Less than 1 hour a day
 99=no answer 99=no answer 99=no answer 99=no answer 99=no answer 99=no answer

<i>Q 12 NutristepUsuallyEats</i>	<i>Q 13 NutristepHowMuch</i>	<i>Q 14 NutristepEatTV</i>	<i>Q 15 NutristepSedentary</i>	<i>Q 16 NutristepOKGrow</i>	<i>Q 17 NutristepThinkGrow</i>	<i>AUTOSUM</i>
USUALLYEATS	HOWMUCH	EATTV	SEDENTARY	KGROW	THNKGROW	
0	0	0	0	0	0	0

0= More than 2 times a day	0= More than 2 times a day	4= 4 or more times a week	4= Most of the time	4= Most of the time	4= Always	4= Less than 2 times a day
1= 2 times a day	1= 2 times a day	3= 2 to 3 times a week	2= Sometimes	2= Sometimes	3= Most of the time	3= 2 times a day
3= Once a day	2= Once a day	2= Once a week	1= Rarely	1= Rarely	2= Sometimes	1= 3 to 4 times a day
4= Not at all	3= A few times a week	1= A few times a month	0= Never	0= Never	1= Rarely	0= 5 to 6 times a day
	4= Not at all	0= Once a month or less			0= Never	2= More than 6 times a day
99=no answer	99=no answer	99=no answer	99=no answer	99=no answer	99=no answer	99=no answer

<i>Q 4 NutristepVeg</i>	<i>Q 5 NutristepMeat</i>	<i>Q 6 NutristepFastFood</i>	<i>Q 7 NutristepMoney</i>	<i>Q 8 NutristepChewing</i>	<i>Q 9 NutristepDrinks</i>	<i>Q 11 NutristepUsuallyEats</i>
-------------------------	--------------------------	------------------------------	---------------------------	---------------------------------	----------------------------	----------------------------------

VEG	MEAT	FASTFOOD	MONEY	CHEWING	DRINKS	USUALLYEATS
		0	0	0	0	0

0= Always	0= Always	4= Always	4= Always	4=Needs more	4= 5 or more hours a day	0= Yes	4= Should weight more
1= Most of the time	1= Most of the time	3= Most of the time	3= Most of the time	0=Gets enough	3= 4 hours a day	4= No	0= Is about the righth weight
2= Somtimes	2= Somtimes	2= Somtimes	2= Somtimes		2= 3 hours a day	2= Not sure	3= Should weight less
3= Rarely	3= Rarely	1= Rarely	1= Rarely		1= 2 hours a day		2= Not sure
4= Never	4= Never	0= Never	0= Never		0= 1 hour a day or less		
99=no answer	99=no answer	99=no answer	99=no answer	99=no answer	99=no answer	99=no answer	99=no answer

Q 11 NutristepHungryatMeals	Q 11 NutristepHowMuch	Q 12 NutristepEatTV	Q 13 NutristepSupplements	Q 14 NutristepPhysicalActivity	Q 15 NutristepSedentary	Q 16 NutristepOKGrow	Q 17 NutristepThinkGrow	AUTOSUM
HUNGRYATMEALS	HOWMUCH	EATTV	SUPPS	PHYSACT	SEDENTARY	KGROW	THNKGROW	
0	0	0	0			0	0	0