

Improving the Nutritional Health of Young Children with NutriSTEP®

*A scientifically validated screening and surveillance
tool supported by ten years of research*



NutriSTEP®

**Nutrition Screening Tool
for Every Preschooler**

**Évaluation de l'alimentation
des enfants d'âge préscolaire**

UNIVERSITY
of GUELPH



NUTRITION
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EN NUTRITION

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Nutrition Screening



Approximately 10% of preschoolers (aged 3-5) are at high nutritional risk. NutriSTEP® is a scientifically validated parent questionnaire that can identify those preschoolers.

Young children with nutritional problems are at risk for growth, behaviour and development problems, including being overweight, failure to grow, iron deficiency, food allergies, inadequate eating skills, and unhealthy eating environments. Inadequate or inappropriate intervention has both short- and long-term health consequences, as well as potential cognitive delays including reduced school readiness.

The 17-item NutriSTEP® questionnaire takes five minutes to complete. It covers food and nutrient intake, physical growth, developmental and physical capabilities, physical activity, food security and the feeding environment.

In addition to being an early identification screening tool for nutrition problems, NutriSTEP® is also an educational and referral tool for parents. It may also be easily incorporated into surveillance and evaluation surveys.

The tool has been endorsed by Dietitians of Canada and is a mandatory child health screening tool in Ontario (Ontario Public Health Standards, 2008). Many other partners throughout Ontario and Canada (e.g., Ontario College of Family Physicians) use and otherwise support the tool.

NutriSTEP® can be used with new and existing early child health and development initiatives in locations such as school readiness and screening fairs, and primary health care settings such as physicians' offices.

Development and Implementation

Researchers from the Sudbury & District Health Unit and the University of Guelph have been working together since 2001 to develop, validate and improve NutriSTEP®. In 2007, the Nutrition Resource Centre became a dissemination partner, bringing NutriSTEP® to thousands of Ontarians.

NutriSTEP® development and testing involved more than 1500 preschoolers and their parents over 10 years (1997-2007). It was scientifically validated in 2006.

Following validation, five pilot projects were planned, implemented and evaluated in Ontario (2007-2009). Three of the projects were with health units and two with family health teams. These pilot projects were made possible thanks to a generous Danone Institute of Canada grant to the University of Guelph and coordination support from the Nutrition Resource Centre (NRC) which is funded by the Ontario Ministry of Health Promotion and Sport (MHPS).

Through the University of Guelph, NRC has an agreement to support the implementation of NutriSTEP® in Ontario while MHPS supports the dissemination of printed questionnaires and educational booklets through Service Ontario Publications (SOP).

With funds for a half-time NRC Program Coordinator and a small operational budget, use of NutriSTEP® has been steadily increasing throughout Ontario. Interest in NutriSTEP® among other provinces and countries is also growing.



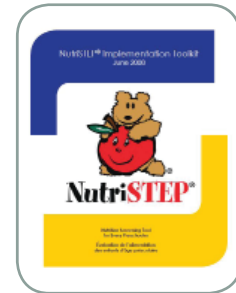
Supporting Resources

The successful partnership between the Nutrition Resource Centre, Sudbury & District Health Unit, and University of Guelph has been rewarded with several Knowledge Transfer (KT) grants from the Canadian Institutes for Health Research (CIHR), as well as additional provincial funds.

These grants and additional funds, combined with NRC's contribution of coordination support, have led to a strong dissemination infrastructure and an impressive collection of resources to support the implementation of NutriSTEP®.

Available supports now include:

- Free print copies of NutriSTEP® questionnaires in eight languages through Ontario Health Units and SOP.
- Free print copies of parent education booklets in six languages through SOP.
- Electronic copies of NutriSTEP® questionnaires in eight languages available through Flintbox.
- A NutriSTEP® website and Online Community available at www.nutristep.ca.
- Training workshops and webcasts for practitioners.
- Implementation case studies (English and French).
- An Implementation Toolkit and support resources (English and French).
- Preschool nutrition primers for Registered Dietitians on five topics (English and French).
- EatRight Ontario call centre counseling tool and referral process.



Documented Success

Research evidence shows that NutriSTEP® has considerable potential to improve the nutritional health of Canadian children.

The strong research skills of the team have lent themselves to the development of a comprehensive evaluation framework to explore the effectiveness of NutriSTEP® from both process and outcome perspectives.

Community-based research activities to explore effectiveness in lowering nutritional risk are ongoing through the University of Guelph.

Outcome data has shown that NutriSTEP® not only screens for nutrition risk, but it also serves to increase parental nutrition awareness and knowledge and to change reported nutrition behaviour (Rysdale et al. Forthcoming 2011). Furthermore, service providers report that NutriSTEP®, when used in a clinical setting, is a useful tool for initiation of conversations with parents related to nutritional risk.



Process questions about reach and implementation barriers are addressed as resources allow. Some important process indicators of success since mid-2009 include:

- More than 300 licenses have been granted to print and disseminate NutriSTEP®.
- More than 75,000 print copies of the NutriSTEP® questionnaires, along with over 125,000 copies of parent education booklets, have been disseminated through 23 Ontario health units and SOP.
- Over 8,500 preschool nutrition primers have been downloaded.
- The NutriSTEP® website has received over 20,000 hits.

Strong Partners

Generous funding from Danone Institute of Canada, Canadian Institutes for Health Research, and the Ontario Ministry of Health Promotion and Sport (through NRC), along with in-kind support from many other partners, have enabled the success of NutriSTEP®.

The core NutriSTEP® team of registered dietitians including: Lee Rysdale, NutriSTEP® Program Coordinator, NRC, Joanne Beyers of the NutriSTEP® Provincial Advisory Committee, Sudbury & District Health Unit, and Drs. Janis Randall Simpson and Heather Keller of the University of Guelph, have had the pleasure of working with many supportive partners.

- Dietitians of Canada actively endorses and promotes NutriSTEP®.
- Ontario College of Family Physicians promotes NutriSTEP® in their child nutrition workshops.
- Best Start Resource Centre includes information about NutriSTEP® in their resources and web site.
- Dairy Farmers of Canada have developed tools and training for Early Childhood Educators that integrate information about NutriSTEP®.
- The Ontario Agency for Health Protection and Promotion has provided letters of support for an E-screen grant proposal.
- The CAPTURE Project is exploring ways to use NutriSTEP® as a tool for researchers.
- The Hospital for Sick Children has included NutriSTEP® in their TargetKids five-year study led by primary health care physicians.



Strategic Directions

As the use of NutriSTEP® increases, and the collection of resources and supports grows, more coordination and maintenance resources are required. To maintain its status as an innovative, evidence-based and feasible tool, there are two provincial strategic priorities for 2011-2012.

1. Work toward an integrated Ontario-wide preschool nutrition risk screening system.
2. Position NutriSTEP® appropriately to ensure its alignment with the emerging Governance Model for a Child and Family Service System in Ontario.



In line with these priorities and with feedback from health practitioners, the NutriSTEP® research team is moving forward with:

- Validation of a Toddler NutriSTEP®, supported by a CIHR grant. An English and French version will be ready in late 2011.
- Integration of the Toddler NutriSTEP® in the Enhanced 18-Month Well Baby Visit and the Early Child Development and Parenting Resource System (Ontario).
- A CIHR grant application to support an electronic screening platform which includes an online version of the NutriSTEP® and Toddler NutriSTEP® questionnaires.
- Promotion of NutriSTEP® to support a centralized preschool nutrition surveillance data base for Ontario.
- Efforts to incorporate NutriSTEP® into existing provincial programs that reach at-risk preschoolers, such as Healthy Babies Healthy Children and the Low Income Dental Program (Healthy Smiles).
- Promotion of NutriSTEP® to various stakeholders as a natural fit with the Ontario Early Years Policy Framework in Best Start Child and Family Resource Centres (Pascal, 2009).

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The NutriSTEP® name and logo are owned by the Sudbury & District Health Unit.

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