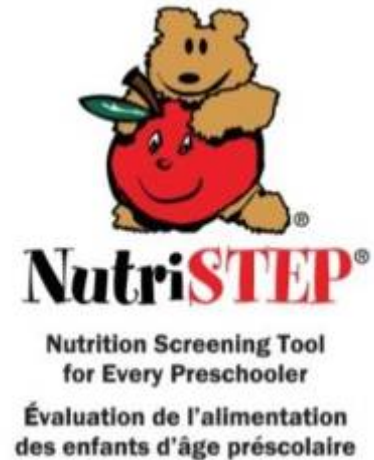


# Implementing NutriSTEP® in Ontario



**Success Stories, Lessons Learned  
and Next Steps**

**November 1, 2010**

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# Outline

- What is NutriSTEP<sup>®</sup> and ethical nutrition screening?
  - Using NutriSTEP<sup>®</sup> in your communities: Ontario models in public and primary health care settings
  - Provincial process evaluation results
  - Other activities and future plans
  - Discussion period
  - Wrap-up
-

# NutriSTEP® Program is ...

- **Parent-focused** nutrition education and skill building program that starts with:
  - **Nutrition risk screening index for preschoolers (3-5 years)**
    - Multi-ethnic
    - 8 languages
    - Parent-administered - 5 minutes to complete
- **On-going collaborative practice-based** research with University of Guelph and others
- **Implementation Toolkit** and resources
- **NutriSTEP® Online Community**



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# What NutriSTEP<sup>®</sup> Measures: Constructs of Nutritional Risk

- Physical growth/weight concern
  - Food and fluid intake
  - Physical activity and screen time
  - Factors affecting food intake (food security, psychosocial feeding environment)
-

## 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
- 3 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.*

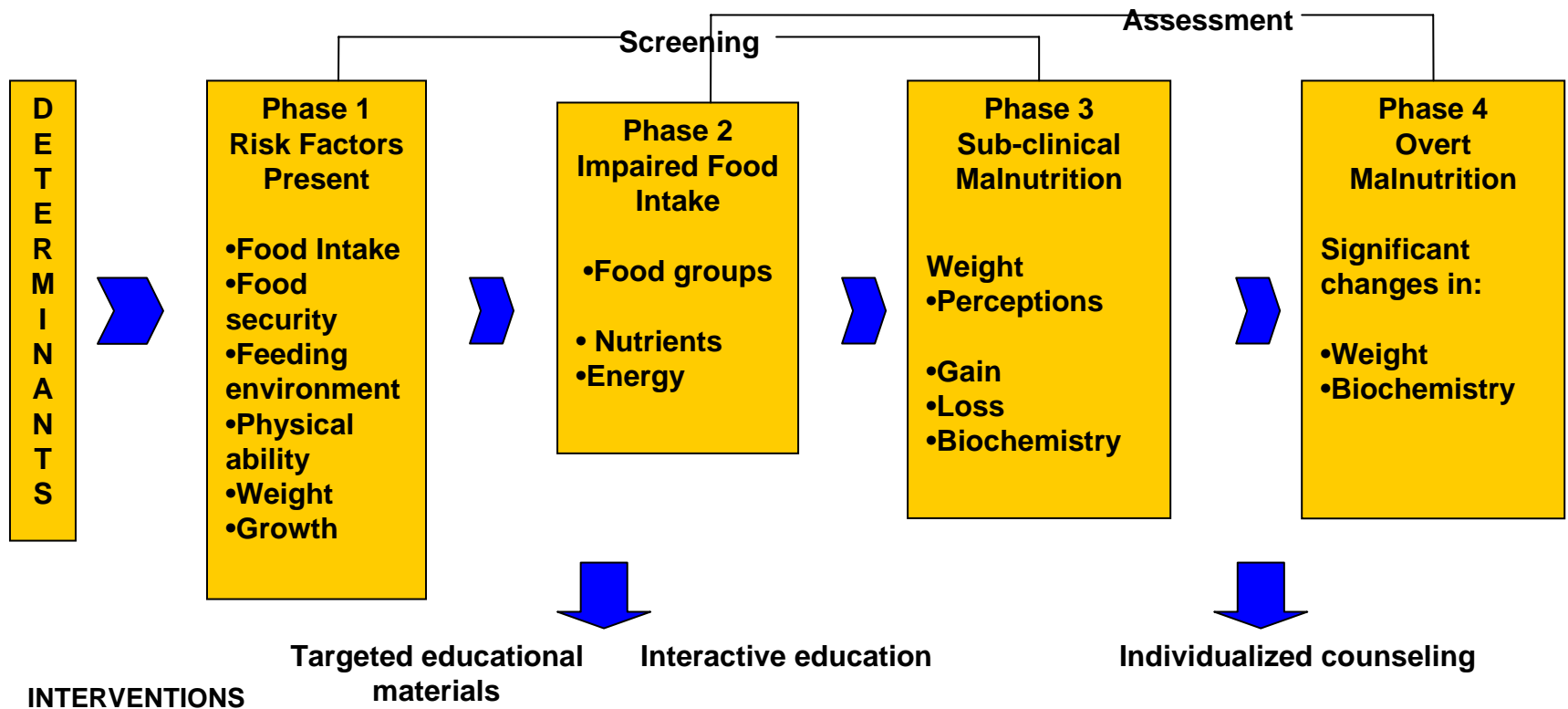
- 0 More than 3 times a day
- 1 3 times a day
- 2 2 times a day
- 3 Once a day or less

#### 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

# What a Screening Program Can Do



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# Why Are We Screening For Nutritional Risk?

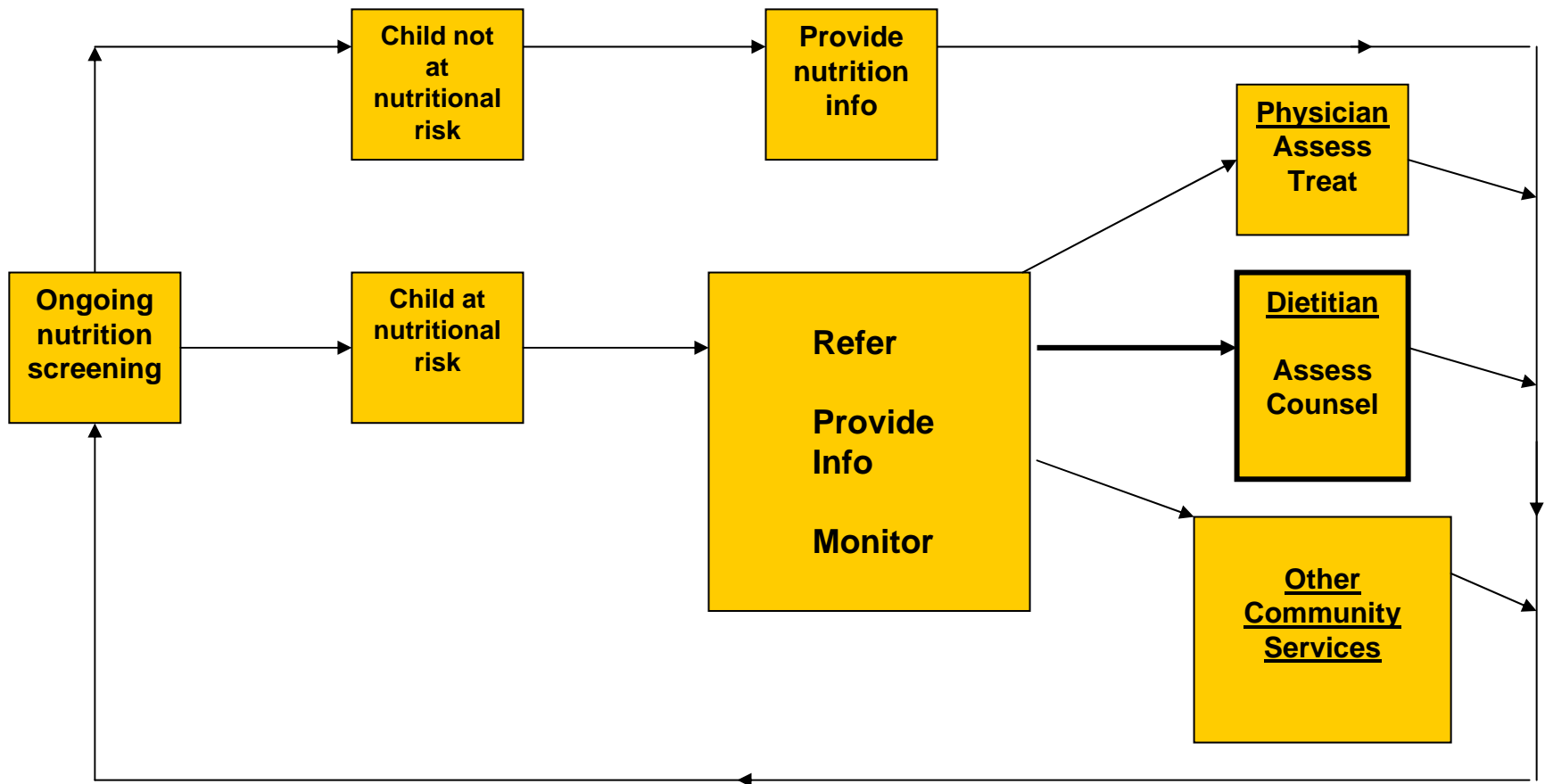
- Leads to early identification and prevention of nutrition problems
  - Increases nutrition awareness with families and providers
  - Means treatment can occur, reducing serious consequences
  - Helps manage scarce community resources
  - Screening data can be used to monitor trends over time (surveillance)
-

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# What is “Ethical” Nutrition Screening?

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

# Ethical Nutrition Screening



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# Can everyone be screened?

Universal is ideal; targeted approach realistic

- Primary Sites for Screening: Think Tank 2006
    - Screening fairs; day cares; JK/SK registration packages; doctors' offices; and, outpatient clinics
  - Dependent on resources available and knowledge of populations served
    - Targeted NutriSTEP<sup>®</sup> screening at “vulnerable” schools 22% high risk vs. 6-14% universal approach
    - “Moderate risk” preschoolers and their parents need primary prevention too – knowledge of community services key
-



# The Keys to Successful Screening

- Ensure ethical screening
- Select an appropriate screening tool
- Choose the setting for screening
- Develop a comprehensive action plan
- Ensure funding can sustain
- Make sure all key stakeholders for successful screening are on board
- Keep target population in mind and respect their wishes

# Ontario Models

- JK Registration
- Preschool Screening Fairs
- HBHC and High Risk Models
- Provincial Support
- Primary Health Care Settings





# JK Registration

Thunder Bay District Health Unit  
York Region Health Department

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# Launch & Location

## Thunder Bay/York Region

- Thunder Bay
    - Start date – January 2008
    - Integrated with the Fair Start JK screening process
  
  - York Region
    - Start date – Jan 2008 (part of U of G targeted implementation study)
    - Community is comprised of 43% immigrants
-

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# Target & Delivery Mode

## Thunder Bay/York Region

### ■ Thunder Bay

- Parents whose 3-5 year olds are entering JK
- NutriSTEP® questionnaires and education booklets distributed to parents through city schools during JK registration with Fair Start booklet
- Parents completed NutriSTEP® independently and facilitator reviewed and provided resources and/or referral

### ■ York Region

- Parents whose 3-5 year olds are entering JK/SK
  - 1400 NutriSTEP® questionnaires and education booklets distributed to parents through 137 York Region schools during JK/SK registration
    - Parents completed NutriSTEP® independently
-

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# Implementation Notes

## Thunder Bay

- Assisted referral model
    - **Parents** complete and score the tool independently, return to school with registration package
    - **Facilitator** reviews score (corrects if needed) and provides resources
    - High risk score receive referral to their MD/NP from Fair Start using triplicate form
    - All risk levels receive the same nutrition education material “How to Build a Healthy Preschooler”
  - Community Partner: Fair Start
  - Team Members: Public Health Dietitian, Fair Start staff (and numerous volunteers)
  - Costs: many in-kind costs through Fair Start and HU support
-

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# Implementation Notes

## York Region

- Self-referral model
    - Parents complete and score the tool, ID risk level, contact a Health Connection RD by phone or go to [www.york.ca/NutriSTEP](http://www.york.ca/NutriSTEP)
    - Team: Public Health Nutritionist and Public Health Dietitian
    - Community partner: York Region District School Board
    - Costs
      - Danone Institute of Canada Grant-in-Aid Program
      - In-kind cost 2.0 FTE (mainly Public Health Nutritionist)
-

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# Challenges & Solutions

## Thunder Bay/York Region

### ■ Thunder Bay

- Few parents followed up with their health care provider
- Numbers not calculated correctly by parent and not corrected by screener may change risk level (9%)-were encouraged at training to recalculate

### ■ York Region

- No calls to Health Connection RD but 1011 hits on York NutriSTEP® website
  - *Eat Right Be Active (3-5 years)* is heavy and challenge to store. Now using *How to Build a Healthy Preschooler*
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# Program Benefits & Evaluation

## Thunder Bay/York Region

### ■ Thunder Bay

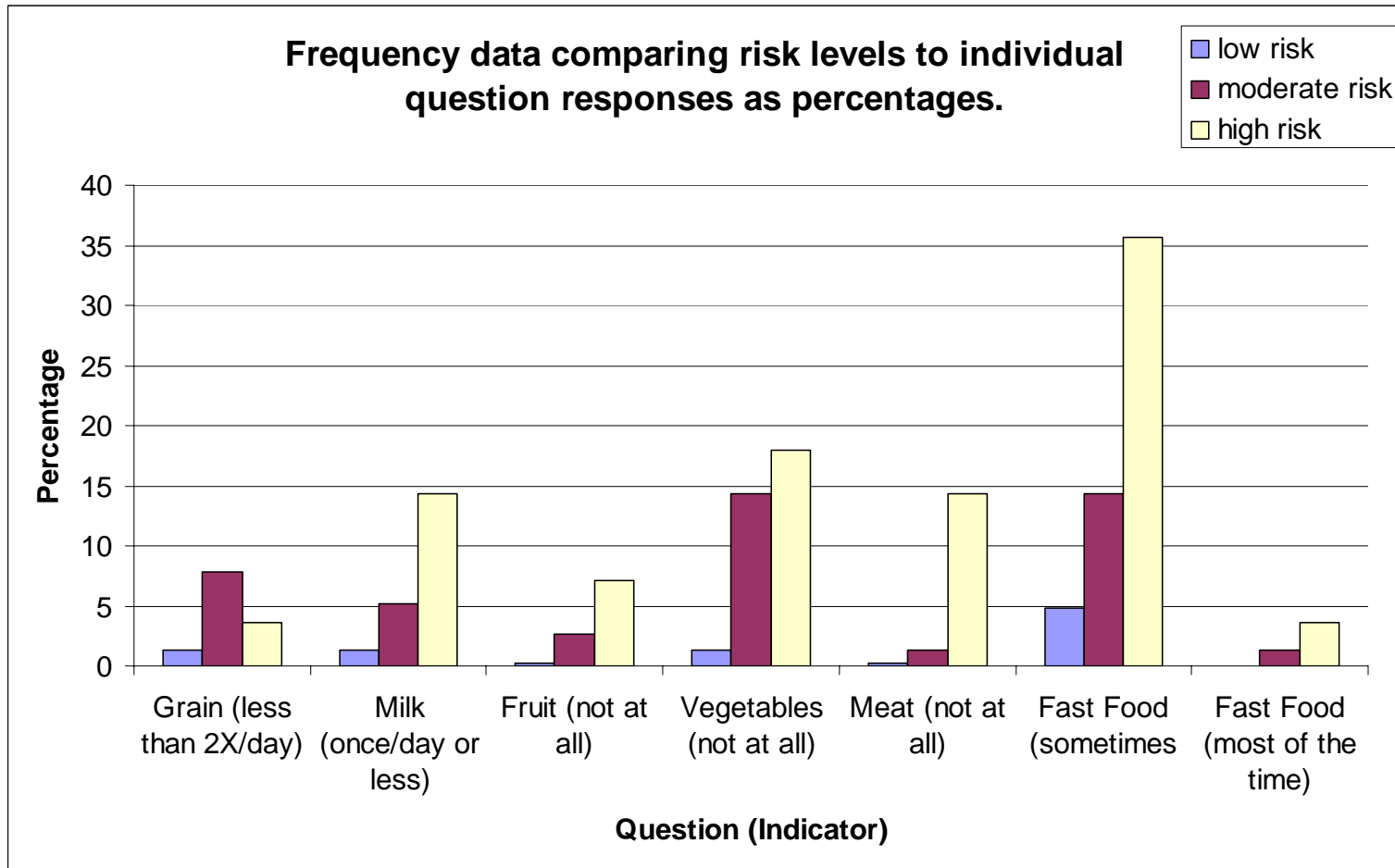
- Prevalence of nutritional risk (2009):
  - 84% low risk; 12% moderate; and 4% high risk

### ■ York Region

- Prevalence of nutritional risk:
    - 77% low risk; 15% moderate risk; and 8% high risk
  - Benefits
    - Self-referral can reach a large number of 3-5 year olds
    - Good partnership opportunity for public health and schools
    - Feasible and sustainable model
-

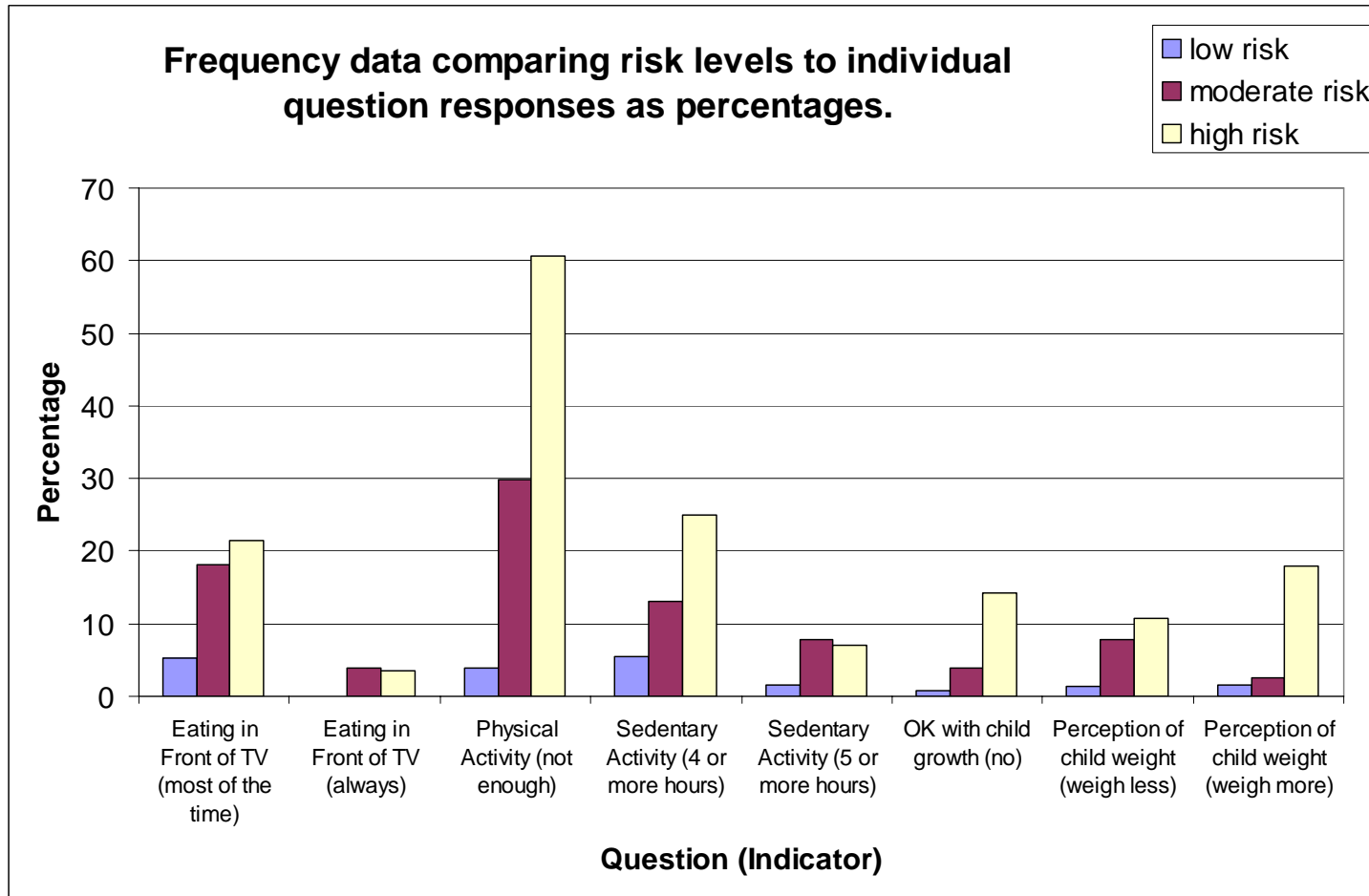
# Evaluation Results

## Thunder Bay



# Evaluation Results

## Thunder Bay



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# Next Steps & Future Plans

## Thunder Bay/York Region

### ■ Thunder Bay

- Continue in JK packages, expand in all district offices
- Trained HBHC program to use with 3-5 year olds
- Implement Toddler version in screening fairs through Fair Start

### ■ York Region

- Presentations and promotion with wide distribution-OEYCs, EIS, child care centres, HU child health program, MDs, and JK/SK
  - Approximately 26,000 questionnaires have been distributed
  - NutriSTEP<sup>®</sup> phone line for parents to discuss NutriSTEP<sup>®</sup> scores with RD and receive referral if required
  - Now promoting translated NutriSTEP<sup>®</sup> questionnaires
  - Fall 2008 Pilot-screening at high risk schools
-



# Preschool Screening Fairs

Waterloo Region Public Health  
Oxford County Public Health

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# Launch & Location

## Waterloo Region/Oxford County

### ■ Waterloo Region

- Pilot-tested fall 2008-winter 2009; started fall 2009
- Regional Child Health Fairs (CHF) (about 6/year)
- Held across region-in areas identified as higher risk of poor outcomes
- Locations: OEYCs, churches, schools and community centres

### ■ Oxford County

- Annual Preschool Health Fairs (JK screening fairs)
  - 4 locations in County (one at PHU)
  - 3 – 5 year olds in the County
  - April – June (2009 and 2010)
  - Community Partners: 3 school boards (JK registration), daycares, OEYCs, Libraries (advertisement)
-

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# Target & Delivery Mode

## Waterloo Region/Oxford County

### ■ Waterloo Region

- Parents varied ethnic backgrounds and SES
- Parents of all 3-5 year-olds at CHF invited to participate
- PH Nutritionist assists with scoring, reviews results with parents
- Resources and referrals provided as appropriate

### ■ Oxford County

- Parents of preschool children attending JK in the fall
  - Guided Referral Method
    - Parent completes and scores
    - PHN reviews score, provides feedback, appropriate resources and referrals
-

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# Implementation Notes

## Waterloo Region/Oxford County

### ■ Waterloo Region

- No follow up planned at this time
- Team: PH Nutritionist (lead), PHNurse/Community partners, Information Assistant, PH Planner
- Minimal cost – only printing of resources not provided by Service Ontario Publications

### ■ Oxford

- Resources and referrals- according to risk score
  - Moderate Risk – referral to Public Health Nutritionist and ERO
  - High Risk – same plus referral form to take to family physician; RD follows up re: discussed with MD or need more info
  - Team: Public Health Nutritionist, PHNs, Dietetic Interns (when available), admin support
  - Costs-resource materials, rental of facilities
-

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# Challenges & Solutions

## Waterloo Region/Oxford County

### ■ Waterloo Region

- No appointments for nutrition screening; "drop-by" basis
- Nutritionist also available to parents of infants and toddlers
- Physical set-up may not be ideal depending on location
- Ideal solution: another staff person to "man" display with nutrition screening in own room with appointments

### ■ Oxford County

- Staff dedicated exclusively to implementation of NutriSTEP® at Fair
  - Challenges
    - Follow up with High Risk families
    - Extra time to implement for low literacy families
-

# Program Benefits & Evaluation Waterloo Region/Oxford County

## ■ Waterloo Region

- Increase awareness of preschool nutrition with parents
- Opportunity to provide information and resources as needed
- Provide referral for moderate - high risk scores
- No evaluation at this time

## ■ Oxford County

- Results
  - 806 completed questionnaires (2009)
    - 682 (84.6%) Low Risk
    - 96 (11.9%) Moderate Risk
    - 28 (3.5%) High Risk

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# Next Steps & Future Plans

## Waterloo Region/Oxford County

### ■ Waterloo Region

- Plan to use NutriSTEP® in HBHC program
  - Finalizing implementation protocol and data collection
- Conduct evaluation in the future – no plans at this time
- Would like: NutriSTEP® added to provincial HBHC protocol and included in ISCIS data base for surveillance purposes (generate reports)

### ■ Oxford County

- Plan for 2010
    - New referral mapping-add new FHT RD to referral for Moderate and High Risk children
-



# HBHC and Other High Risk Settings

Niagara Region Public Health Pilot

York Region School Board Pilot

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# HBHC Pilot Niagara Region

- Goal: to screen approximately 120 preschoolers in HBHC
  - Assisted referral method: public health nurses provide the NutriSTEP<sup>®</sup> tool to clients during a home visit
    - PHNs receive a monthly list identifying 3-5 year old children on their caseload
    - Packages consist of the screening tool and educational resources for PHN to take on home visit
    - Assist client with completing the screen if necessary
-

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# HBHC Pilot

## Niagara Region

- Follow-up:
    - PHN reviews the score with client and provides educational resources and parent feedback form
    - **Moderate risk:** Referred to ERO and encouraged to attend healthy eating/active play workshops
    - **High risk:** Referral form completed and client encouraged to follow up with family doctor. Form and tool faxed to doctor
    - Chewing/Swallowing concerns: Referred to Niagara Peninsula Children's Centre (NPCC) for follow-up with SLP/OT
    - Growth Concerns: Client encouraged to follow up with family doctor. Referral form and tool faxed to doctor
-

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# HBHC Pilot Niagara Region

- Follow-up:
    - PHN enters screening tool into ISCIS
    - Returns screening tool to RD for data collection
    - Clients receive follow-up phone call 3 months after screening
      - Satisfaction with screening process & resources
      - Access to referrals
      - Changes to child's nutrition or activity habits
-

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# HBHC Pilot Niagara Region

- Implementation Team:
    - Public Health Dietitian
    - Public Health Nutritionist
    - PHNs
    - Public Health Epidemiologist
    - HBHC Manager
  - Costs:
    - Printing costs for forms
    - Physician mail-out
    - Food and supplies for Healthy Eating and Active Play workshops
-

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# HBHC Pilot Niagara Region

- Challenges:
    - Number of screens completed to date
      - Challenges with finding opportunities to screen high risk families
      - Pilot study end date extended to Sept 2011
    - Accuracy of client responses
      - Contradicts what PHN observes in the home
    - Contacting clients to complete follow-up phone survey
-

# HBHC Pilot Niagara Region

Of 150 children, 50 screens completed to date

Risk Category	N value (%)
Low Risk	32 (64%)
Moderate Risk	12 (24%)
High Risk	6 (12%)

# Preliminary Results

NutriSTEP <sup>®</sup> Question	Response
My child eats vegetables (less than 2 times a day)	42.2%
I have difficulty buying food because food is expensive (sometimes or most of the time)	32.7%
I let my child decide how much to eat (sometimes, rarely or never)	51.1%
My child eats while watching TV (sometimes, most of the time or always)	64.4%
Screen time: 1 hour or less a day	4.4%
2 hours a day	48.9%
3 hours or more a day	46.7%

# Follow-up Telephone Survey

Survey Question	Response
The screening has made me more aware of preschool nutrition and eating habits.	87.1%
The screening has made me aware of nutrition concerns for my child that I was not aware of before.	48.4%
How helpful did you find the educational resources? Very helpful Somewhat helpful	64.5% 32.3%
The screening and resources helped me make changes to my child's nutrition or activity habits.	93.5%
I feel more aware of nutrition programs, services and resources available?	90.3%

**31 surveys completed**

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# Next Steps and Future Plans

- Evaluation of pilot study - Sept 2011
  - Policy drafted to include as routine screening in HBHC
  - Interest from community groups
    - Quality Child Care Niagara
    - Ontario Early Years Centres
    - Family Health Teams
-

# York Region Pilot-Fall 2008

- 11 schools; 90% ESL
- Dental, vision, and NutriSTEP<sup>®</sup> screening with JK/SK students
- 8 screeners: RDs and Nutrition Educators
- Volunteer translators on-site
- 667 parents/caregivers participated (56%)
- 635 parents/caregivers consented to data collection (54%)
- Prevalence of nutrition risk:
  - 50% low risk
  - 28% moderate risk
  - 22% high risk (more than double the 10% expected prevalence for high risk)

# 30% or more were at nutrition risk for the following questions

<b>Q.1</b>	Grain products
<b>Q.2</b>	Milk and alternatives
<b>Q.3</b>	Fruit
<b>Q.4</b>	Vegetables
<b>Q.5</b>	Meat and alternatives
<b>Q.9</b>	Child not hungry due to fluid intake (many children drinking from baby bottle)
<b>Q.11</b>	Parent not letting child control how much to eat
<b>Q.15</b>	Sedentary activity level (excessive TV, computer, video games)

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# Challenges & Solutions

## York Region Pilot

- High risk families not calling NutriSTEP<sup>®</sup> RD line
  - NutriSTEP<sup>®</sup> questionnaires available only in English and French (now in 8 languages)
  - Education resources are not available in all languages (now in 6 languages)
  - Desire: to do additional screening programs at high risk schools at JK/SK entry
  - Challenge: insufficient staff and funds for guided referral screening programs
-

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# High Risk Children Potential Models

- High Risk Schools via EDI mapping
  - CAS/ CCAS
  - Low income dental program
    - MHPS and MOHLTC funded
    - Investigate health unit interdepartmental opportunities to integrate NutriSTEP®
-

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## **EatRight Ontario**

SPEAK WITH A REGISTERED DIETITIAN FOR FREE



**1-877-510-510-2**

**[www.ontario.ca/eatright](http://www.ontario.ca/eatright)**

# **Provincial Program Support**

**EatRight Ontario**

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menu planning diabetes healthy weights



## Implementing NutriSTEP®

Call toll-free  
1-877-510-510-2

Monday to Friday 9am to 5pm ET  
Tuesday and Thursday until 9pm

Visit the website  
Email a Dietitian

[www.ontario.ca/eatright](http://www.ontario.ca/eatright)

good food choices infant feedings supplements





**EatRight Ontario**

# EatRight Ontario Service Overview



## Access to healthy eating advice for Ontario

Emphasis on health promotion and disease prevention

Public & health intermediaries

## Access thru phone

Toll free 1-877-510-510-2

Mon-Fri 9-5; 2 evening hours

## Access thru web

[www.ontario.ca/eatright](http://www.ontario.ca/eatright)

Email service

**Consistent; evidence-based  
Free**

**Over 100 languages**

**Funded by Ministry of Health  
Promotion and Sport**

**Managed by Dietitians of Canada**



# ERO NutriSTEP<sup>®</sup> Launch

## ERO Launch Date:

March 2009

Implemented all across Ontario

## Delivery Method:

Phone

Email

Website





EatRight Ontario



# Getting Ready for Launch

## In preparation:

Developed evidence based counseling tool to respond to incoming calls and emails

Collected and reviewed client handouts to respond to incoming calls

Updated our contact referral database

Trained staff on NutriSTEP<sup>®</sup>





EatRight Ontario



# ERO's Role in Implementing NutriSTEP®

## ERO supports

Parents looking for follow up information once preschooler has been screened

Administrators interested in setting up a screening program.

## ERO does not:

Administer

Score

Send out NutriSTEP® questionnaires





**EatRight Ontario**



## **ERO supports the Parent:**

### **Provides tailored evidence based nutrition advice on healthy eating once preschooler screened**

Via Phone, email, or website

Convenient hours available

Tailors response to parent's questions and needs

Mail or email client handouts

### **Link parents to community agencies and health professionals for customized follow-up**





EatRight Ontario



## ERO supports the professional implementing screening

### **Act as a nutrition resource for the screening administrator**

Answer nutrition questions

Provide client handouts

Act as a resource for parents

### **ERO is able to direct administrators to resources that may help in implementing screening program**

ERO is unable to provide detailed support





# Challenges and Solutions

## Getting the word out!

EatRight Ontario is here to support the:

Parents of preschoolers

Screen administrators implementing NutriSTEP®

## Promote EatRight Ontario

Add contact information to your NutriSTEP® tools and community referral maps

Include ERO promotional material with the screening packages:

Magnets

Book marks

Tear pads etc.,





**EatRight Ontario**



## **Next Steps**

**Continue to support incoming NutriSTEP<sup>®</sup> calls**  
**Keep client handouts and professional tools up to date**

**Expand website content on preschool nutrition**

**Promote ERO's role with NutriSTEP<sup>®</sup>**

**Build bridges with community agencies**





# Primary Health Care Settings

TARGetKids!, Toronto

Hamilton and Stratford Family Health Teams

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# TARGetKids!

## Healthy Children Through Preventive Healthcare



St. Michael's

Inspired Care. Inspiring Science.

**SickKids**<sup>®</sup>

RESEARCH  
INSTITUTE

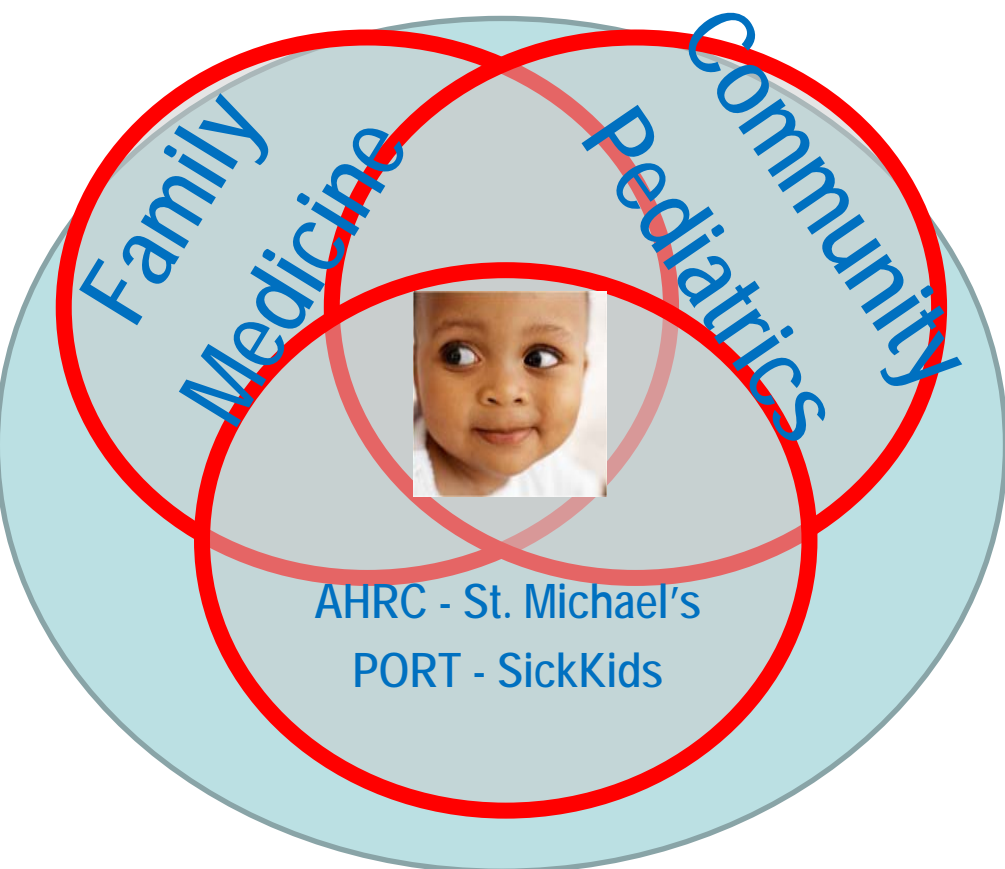
Child Health  
Evaluative Sciences



UNIVERSITY  
of TORONTO



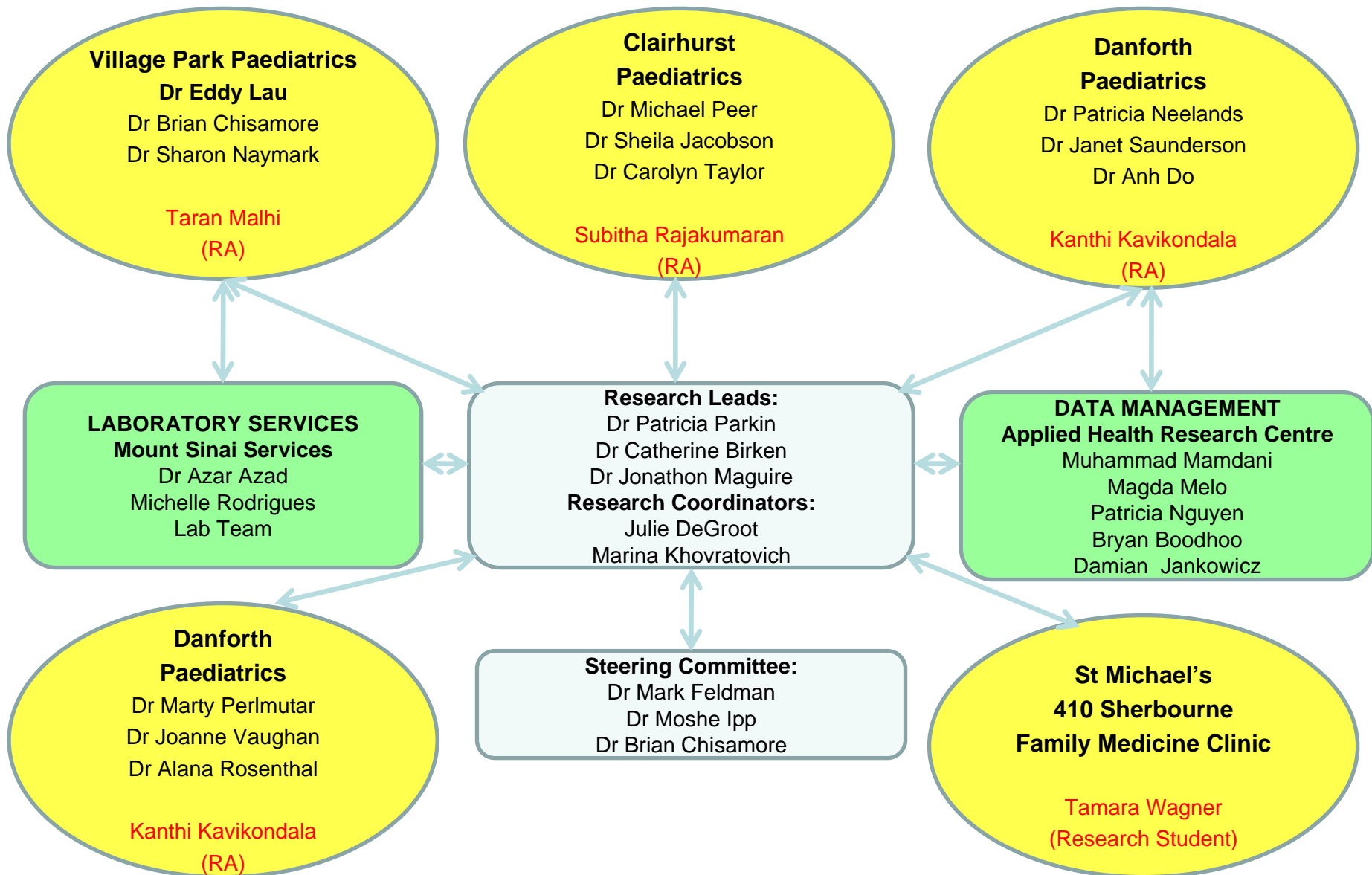
# TARGetKids!



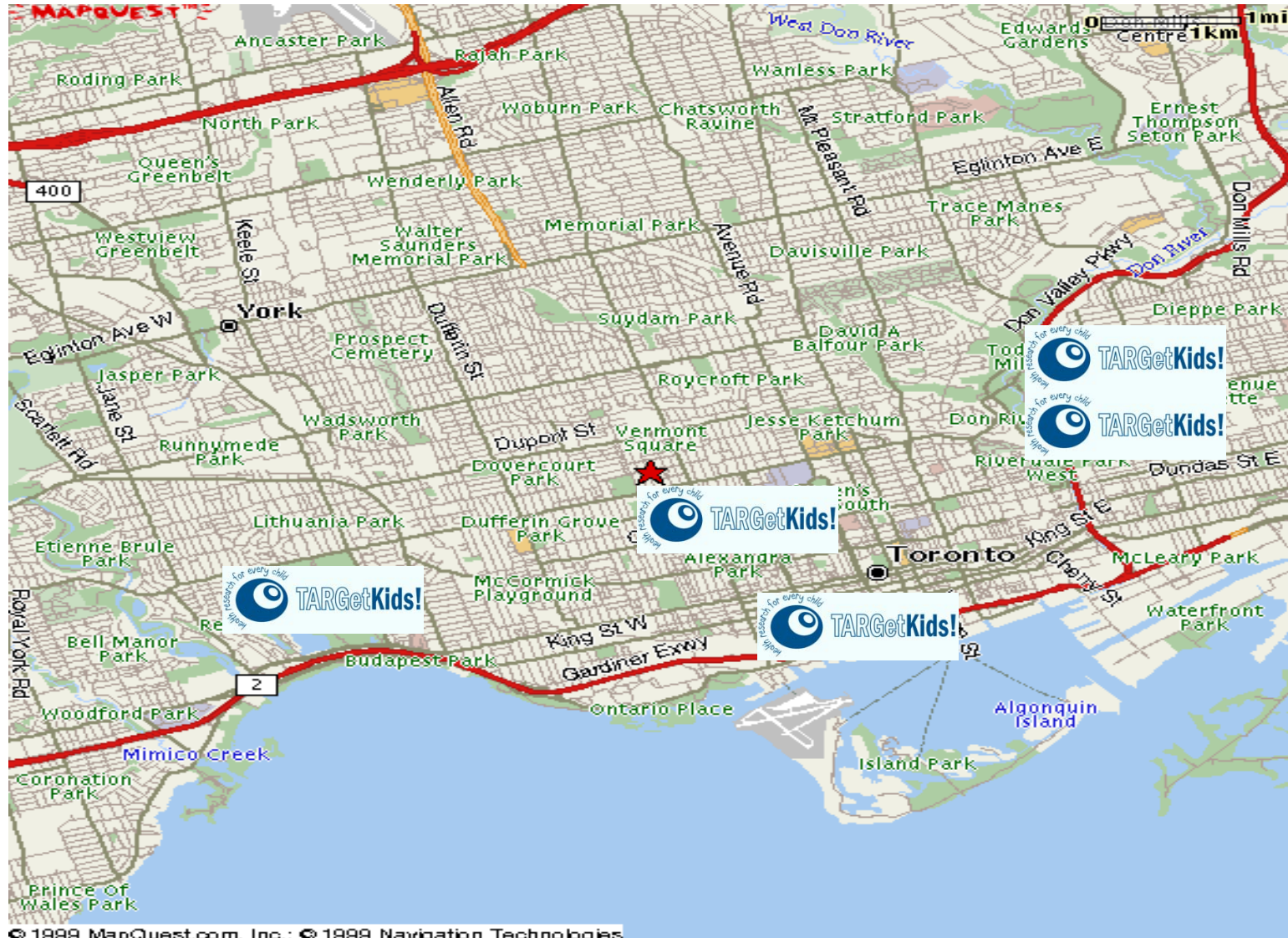
A child health promotion  
research platform  
embedded in primary  
healthcare

“Health Research  
For Every Child”

# TARGet Kids! Structure



# Where?



# Research Process

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Prior to child's visit:

- Research assistant (RA) identifies families to be approached (based on the schedule of upcoming visits)
- RA sends out letter with a brief description of the study 2 weeks prior to child's visit to the clinic

# Research Process

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## Recruitment:

- RA meets and greets family at the doctor's office and explains them goals of the study and family's involvement
- RA answers to all the question
- If family agrees to participate, RA explains one or both of the parents consent form and all questionnaires

# Research Process

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Recruitment (continue):

- NutriSTEP<sup>®</sup>, child temperament, health questionnaires administered completed by parents in the waiting room
- RA checks the forms for completeness
- RA takes measurements:
  - Child – height (cm), weight (kg), waist circumference (cm) and BP
  - Parent - height (cm), weight (kg) and waist circumference (cm)

# Models of Blood Sample Collection

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1. RA / Phlebotomist – research assistant is a certified phlebotomist and collects blood samples from each participant (Village Park, Danforth Paediatrics)
2. RA + Nurse – blood collection is done by nurse who works at the doctor's office (Clairhurst Paediatrics)
3. RA + Phlebotomy Clinic – blood collection is done at the phlebotomy clinic located in the same building with the doctor's office (Gamma-Dynacare, Danforth Paediatrics)

# Challenges of Recruitment

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- Participation in the study extends the visit for 30 min or more
- Limited space in clinics
- Paediatric practices: limited new recruitment – practices full
- Family medicine practices:
  - Small sample size
  - Less follow up

# Enrollment in TARGet Kids!

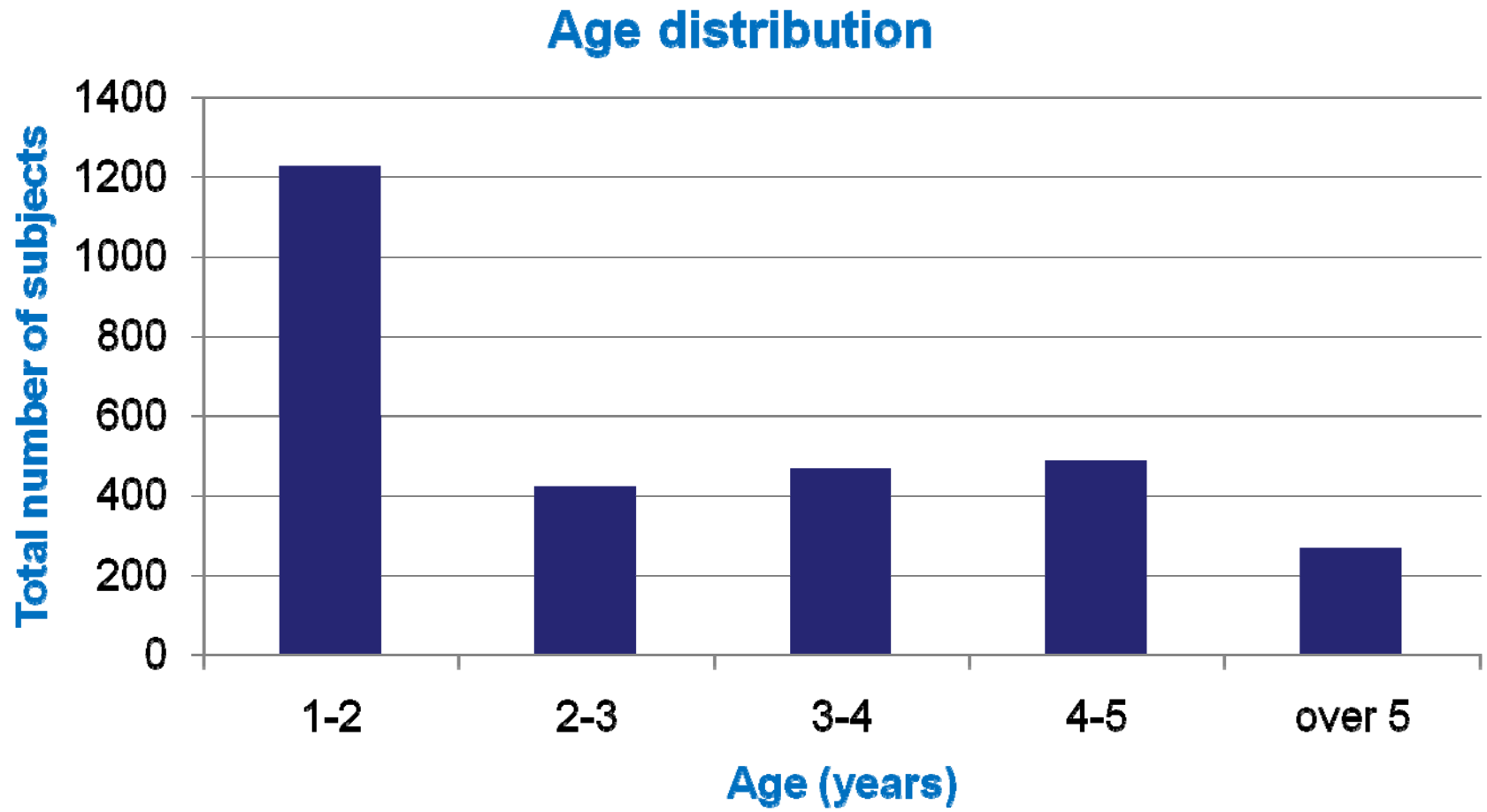
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Over the last 2 years...

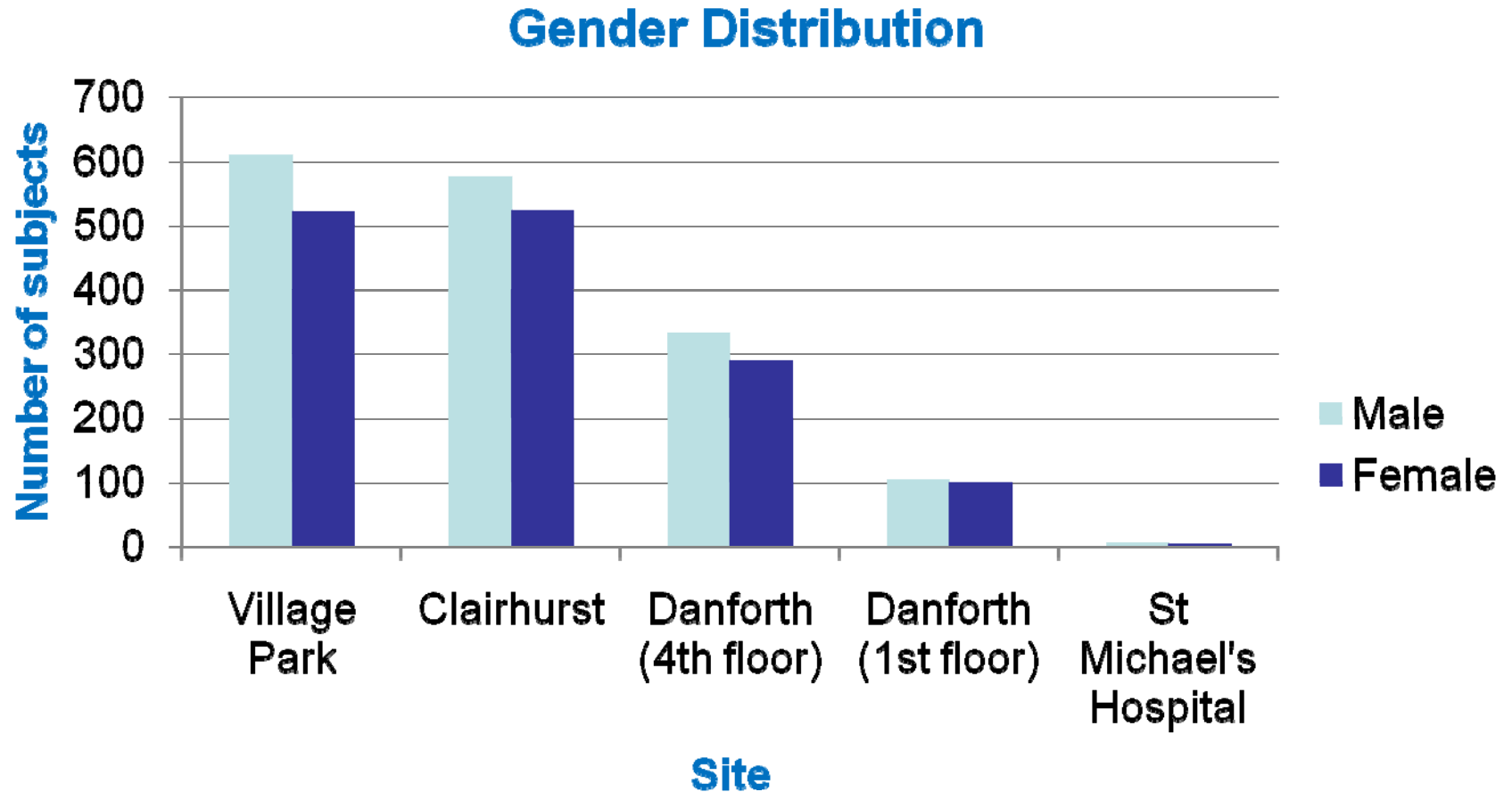
Site	Total Enrolled	Blood Samples Collected
Village Park Paediatrics	1134	657
Clairhurst Paediatrics	1098	465
Danforth Paediatrics (4 <sup>th</sup> floor)	629	216
Danforth Paediatrics (1 <sup>st</sup> floor)	234	167
St Michael's Family Medicine	7	7
Total	3102	1512

# Age Distribution

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# Gender Distribution, by site



# Future Plans

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- Data entry >1000 subjects
- Data analysis ongoing
- Establish stable infrastructure funding
- Continue to secure project based grants
- Nurture and build partnerships
- Expand TARGeT Kids! other local and national sites
- Enhance communication and feedback

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# Launch & Location

## Stratford and Hamilton FHTs

### ■ Stratford

- Wellness Clinic for Tots
- All 3-year-olds in FHT invited to participate
- 2 locations (Stratford & Milverton)
- NutriSTEP<sup>®</sup> discussed by NP with parents
- Referrals to FHT RDs

### ■ Hamilton

- In conjunction with 'acute' physician visits at 12 offices
  - Recruitment to study by receptionists
  - NutriSTEP<sup>®</sup> not reviewed at physician visit
  - Referrals to FHT RDs
-

---

# Procedures

- Objectives
    - Feasibility and acceptability in FHT models
  - Parents
    - NutriSTEP<sup>®</sup> questionnaires, demographic questionnaires returned to Guelph
    - Parents who agreed were called by a research assistant
    - Questionnaire with closed and open-ended questions
  - Receptionists/Health Care Professionals
    - Questionnaires
    - Focus group with RDs in Hamilton
-

# Parent Phone Interviews

- Participants: Stratford, 79; Hamilton, 56
- Agreed to phone interview: 103 (76%)
- Phone interviews: 65 (63%)
- RD referrals: Stratford, 2; Hamilton, > 5

	Low Risk	Moderate Risk	High Risk
Hamilton	70%	16%	14%
Stratford	88%	8%	4%
Combined	80%	11%	8%

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# Feasibility

- Parents
    - 98% thought setting was good
  - Providers
    - Stratford
      - NP thought screening clinic great venue for NutriSTEP<sup>®</sup> and should be used on an ongoing basis
      - NutriSTEP<sup>®</sup> provided NP with opportunity to address with parents the constructs related to nutrition risk
-

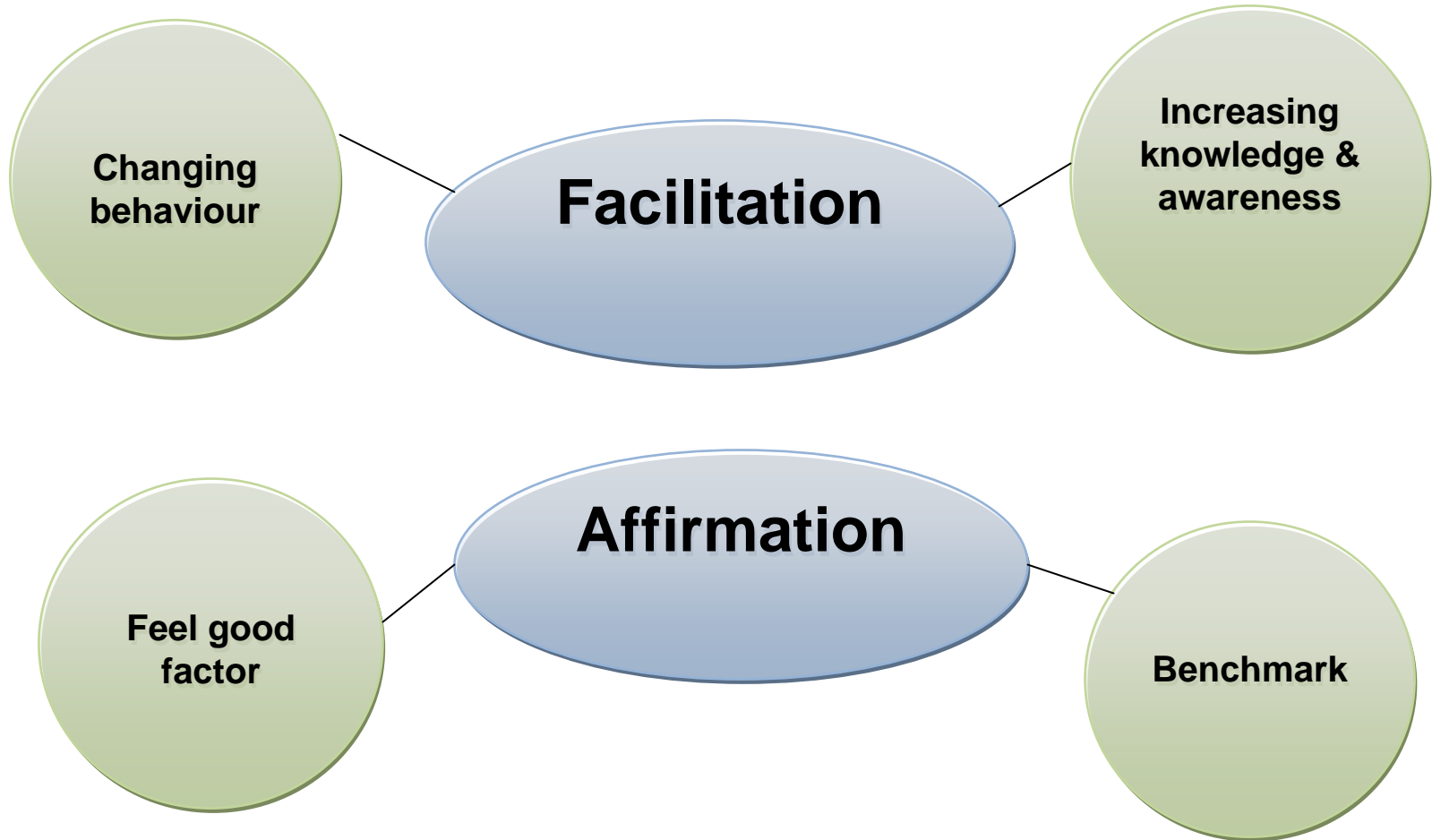
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# Feasibility

## ■ Hamilton

- Good venue: 3/4 receptionists, 3/5 RDs & 1 NP
  - “Maybe” ongoing use: 4/4 receptionists, 3/5 RDs & 1 NP
  - Better for a check-up/immunization visit vs. acute visit and with physician “buy-in”
  - Study materials took a lot of time to complete
  - Difficult for parents while watching children
  - Literacy level of study materials was high
  - Parents would prefer to take NutriSTEP<sup>®</sup> home
  - Lack of ‘buy-in’ from practices for the study
-

# Acceptability - Parents



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# Acceptability - Parents

- “I re-evaluated nutrition and bought different groceries.”
  - “It allowed me to focus on all aspects on my kids’ meals. It’s useful to see where to improve.”
  - “It was useful and reinforced what I knew...”
  - “I was embarrassed she scored so [high]. It was good motivation to get me to feed her better.”
  - “ It made me aware to keep trying new foods...”
  - “I’ve stopped dictating how much my child should eat and learned not to be so stressed out.”
  - “It reassured me that she was reaching her nutritional benchmarks.”
  - “It’s important to fill questions like that out because a parent may not know there is an issue.”
-

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# Acceptability – RDs and NPs

## RDs

- Training for process: fine
- Comfortable answering parent questions:
  - Yes 2/5, No 1/5
  - Parent questions: score interpretation, question clarification, sources for resources
- Comfort with this age group: 3/5
- “I would definitely promote NutriSTEP<sup>®</sup> to other dietitians and health care professionals.”

## NPs

- “Great tool for opening the discussion on feeding issues, etc.”
  - “I would like to see NutriSTEP<sup>®</sup> used on an ongoing basis without the study and consent.”
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# What We Found Out After Evaluating FHT Sites

- Screening Clinic Model
    - Feasible and sustainable – another FHT in Stratford is continuing with NutriSTEP® in Wellness Clinic for Tots
  - Physician Visit Model
    - Need buy-in from physicians
    - Would work better if not a research study
    - Did not overwhelm follow-up services
  - Training about preschool nutrition for follow up by health professionals may be needed
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# Preschool Nutrition Modules

## “RD Primers”

- Front-line health professionals require extra training on preschool nutrition
  - Top 5 preschool nutrition issues identified as learning opportunities for Registered Dietitians (RDs):
    - 1) Growth assessment (part 1) - theoretical and background information
    - 2) Growth assessment (part 2) - abnormal growth (failure to thrive, overweight and obesity) and body image/self-esteem
    - 3) Nutritional assessment - developmental stages, parenting and the feeding environment
    - 4) Nutrient deficiencies - iron and vitamin D
    - 5) Food allergies and intolerances
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# “RD Primers”

- Development-March and April 2009
  - Translated into French
  - E/F Primers launched June 2009
  - E/F Audio modules
    - Updated, reformatted and launched late July 2010
  - NutriSTEP<sup>®</sup> website ([www.nutristep.ca](http://www.nutristep.ca))
  - 3500+ visits since July
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# Key Learnings

- Study settings and procedures need to be individualized
  - Nutrition concerns are complex to address
  - We can screen, ID, refer and gather data well
  - Ethical practice hard to do - follow-up is critical
  - Measuring efficacy and effectiveness requires long-term evaluation efforts
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# Process Evaluation of NutriSTEP®

## ■ Sites

### □ Public health

- Screening fair, drop-in program, JK/SK registration

### □ Primary health care

- Screening clinic, 'acute' physician visits

## ■ Participants

### □ Parents and caregivers

### □ Program providers

### □ Health professionals (RD, NP)

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# Process Evaluation of NutriSTEP®

## ■ Results

- 499 parents completed questionnaire and demographic form
- 229 completed telephone interview
- 52% boys; 94% English-speaking; 95% Canadian
- 7% high risk; 12% moderate risk; 81% low risk

## ■ Conclusions

- Parents: increases knowledge and awareness; change behaviours
  - Health care providers: acceptable, feasible and continue to use in practice
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# Other Activities and Opportunities

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# Website & Online Community

- Background information and FAQs
    - 20,000+ visits since July 2009 (>50% US)
  - Success stories: 6 case studies posted April 2010
    - 900+ visits to date
  - Implementation Toolkit (E/F)
    - Electronic and binder/CD versions (available from NRC)
  - Nutrition Primers for RDs (E/F)-updated and reformatted
  - Online Community
    - 30+ members
  - Research Activities
    - Publications-Executive Summary; Lessons learned
    - Annotated Bibliography-550+ references
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# Flintbox and SOP

- Flintbox
    - Electronic versions of questionnaires
    - License for questionnaire use
    - Tracking uptake and use
  - Service Ontario Publications
    - Print versions of questionnaires and education booklets
    - Questionnaires-password protected side
      - 8 languages
      - 70,000+ since July 2009 (16 PHUs)
    - Education booklets-general side
      - 6 languages
      - 120,000+ since July 2009 (23 PHUs)
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# Evaluation Activities

- Program Evaluation Plan
    - Short and longer term planning
    - Evaluation objectives
      1. Need – Who is the target group?
      2. Impact – NutriSTEP<sup>®</sup> are evidence-informed
      3. Capacity/Appropriateness
      4. Community partnerships and collaboration
    - Tools for evaluation and timelines
      - How will each activity of the program be evaluated?
    - Lead(s) and partners' roles
    - Who and how data is shared
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# Evaluation Activities

- Publications
    - Parent perception (targeted implementation in public health settings)
    - FHT implementation evaluation
  - Evaluation plan and database templates
    - To be posted on NutriSTEP<sup>®</sup> website in near future
  - Provincial Plans 2011-12
    - Program uptake and resources e.g. Implementation Toolkit, RD Primers
    - Ongoing process and impact evaluation
      - Process evaluation and program efficacy (CIHR unsuccessful)
      - PHAC proposal with Perth District Health Unit and U of G
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# Partnerships and Promotion

- ERO web site and call centre
  - DC
    - Healthy Start for Life
    - PEN preschool pathway
    - Updated Collaborative Growth Statement, 2010
  - OCFP nutrition workshops
  - BSRC
    - Website, conference exhibits, resources
  - DFC Good Beginnings Online Preschool Nutrition Course for ECEs
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# Partnerships and Promotion

- OPHS, 2008
    - Child Health, Requirement #11
    - Guidance Documents, June 2010 (Child Health, School Health, and Healthy Eating, Active Living, Healthy Weights)
  - OAHPP
    - Preschool nutrition surveillance
  - MCYS
    - HBHC ISCIS database
    - EDI mapping
  - Curbing Childhood Obesity: FPT Framework for Action to Promote Healthy Weights
  - Platform suite for nutrition screening
    - Online version of NutriSTEP with referrals
-

# Need Centralized Screening Data Base(s)

- Program Evaluation is a MUST
  - Data = Power = Resources
- When asked: “How do you know your program works? “Are you making a difference?”  
“What are our rates for X?”
  - Need to put in place a way to collect data at site/community level as well as aggregate across Ontario and Canada



# Promotion and Knowledge Transfer

- Promotional brochure-E/F
  - 3000 since January 2010
- CIHR
  - Knowledge to Action: Casebook
- Conferences
  - FHT RDs (Oct 2009)
  - FNIHB RDs (Dec 2009)
  - UK (March 2010)
  - CPHA (June 2010)
  - SNE (July 2010)
- Year end report
  - Spring 2011



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# Toddler NutriSTEP®

- CIHR funded study 2010-12
    - PI: U of Guelph
    - Collaborators: SDHU, TBDHU, York Region Health Dept
  - Parent focus groups-May-June 2010
    - 6 groups-Sudbury, York Region, Hamilton
  - Pediatric RD Content Validation-July-Sept 2010
    - 13 RDs from 5 provinces
  - Parent key intercept interviews-Nov 2010- Feb 2011
    - 90 parents from Thunder Bay, Sudbury, York Region, Hamilton, Guelph
-

# Toddler NutriSTEP®

- Reliability testing-Spring 2011
  - 140 parents
- Criterion Validation-Summer and Fall 2011
  - 200 parents
- Toddler questionnaire (E/F)-Spring 2012

- Education booklets (E/F)
  - Development/peer review-winter 2010
  - Parent evaluation-spring/summer 2010
  - Translation/professional design-fall 2010
  - Electronic versions available soon



# QUESTIONS AND DISCUSSION



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# Steps Towards Implementation

- Select a Site Coordinator/Lead
  - Use NutriSTEP<sup>®</sup> 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
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# For More Information

- NutriSTEP<sup>®</sup> Web site:  
[www.nutristep.ca](http://www.nutristep.ca)
  - Nutrition Resource Centre:  
[www.nutritionrc.ca](http://www.nutritionrc.ca)
  - Provincial Program Coordinator:  
Lee Rysdale:  
[lrydale@opha.on.ca](mailto:lrydale@opha.on.ca)
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**NutriSTEP®**

**Nutrition Screening Tool  
for Every Preschooler  
Évaluation de l'alimentation  
des enfants d'âge préscolaire**

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

[http://www.surveymonkey.com/s/nutristep\\_webcast\\_Nov2010](http://www.surveymonkey.com/s/nutristep_webcast_Nov2010)