

Local Public Health

“Bridging the science-to-policy gap in agri-food public health”

University of Guelph

March 6, 2013

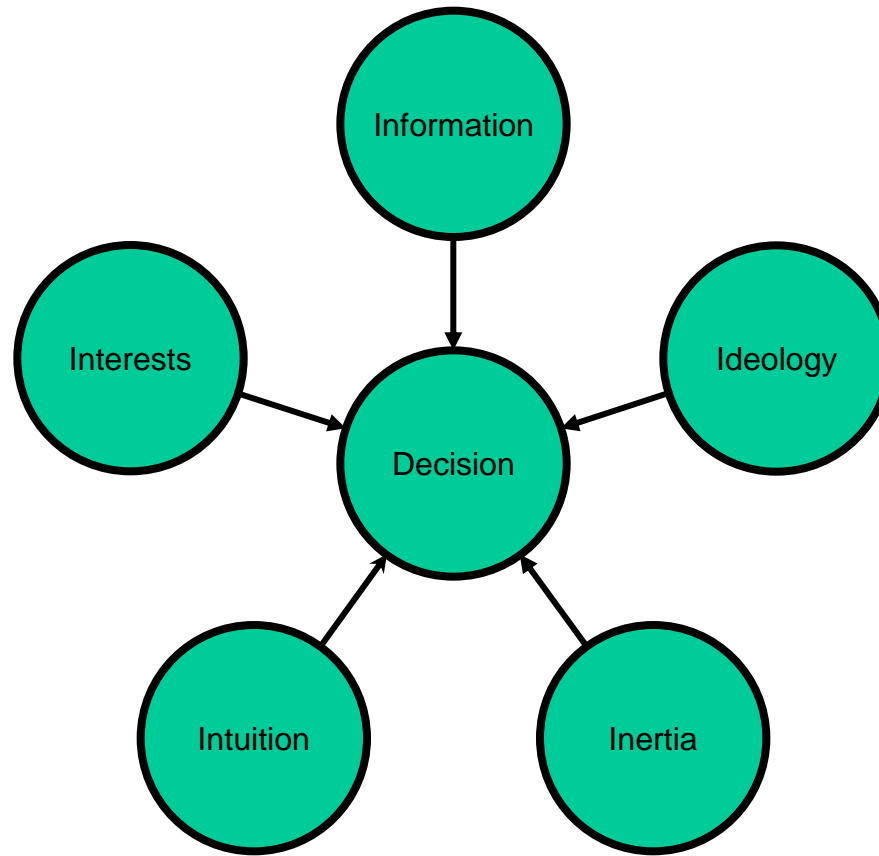
David L. Mowat, MBChB, MPH, FRCPC

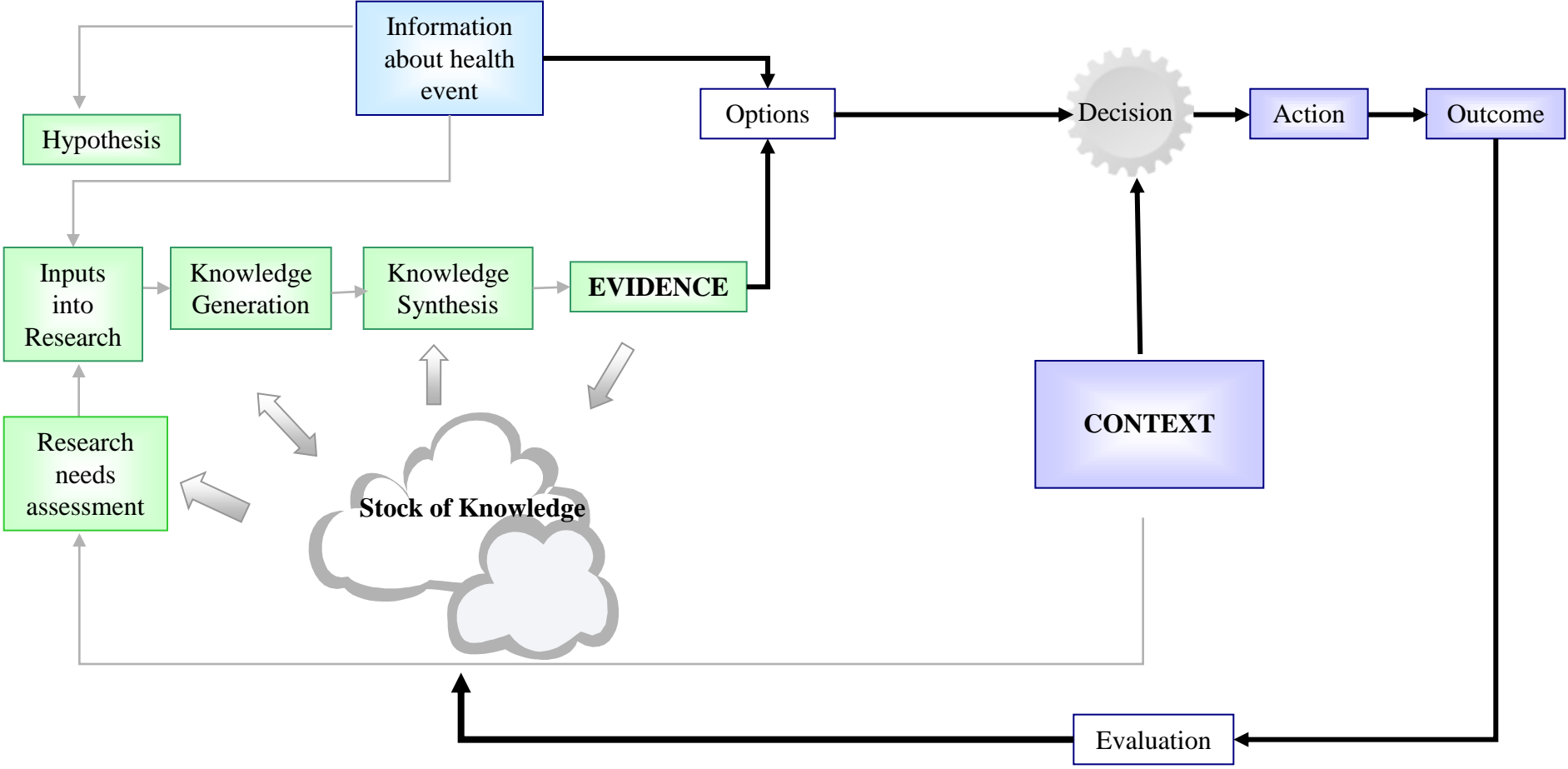
Medical Officer of Health

Region of Peel



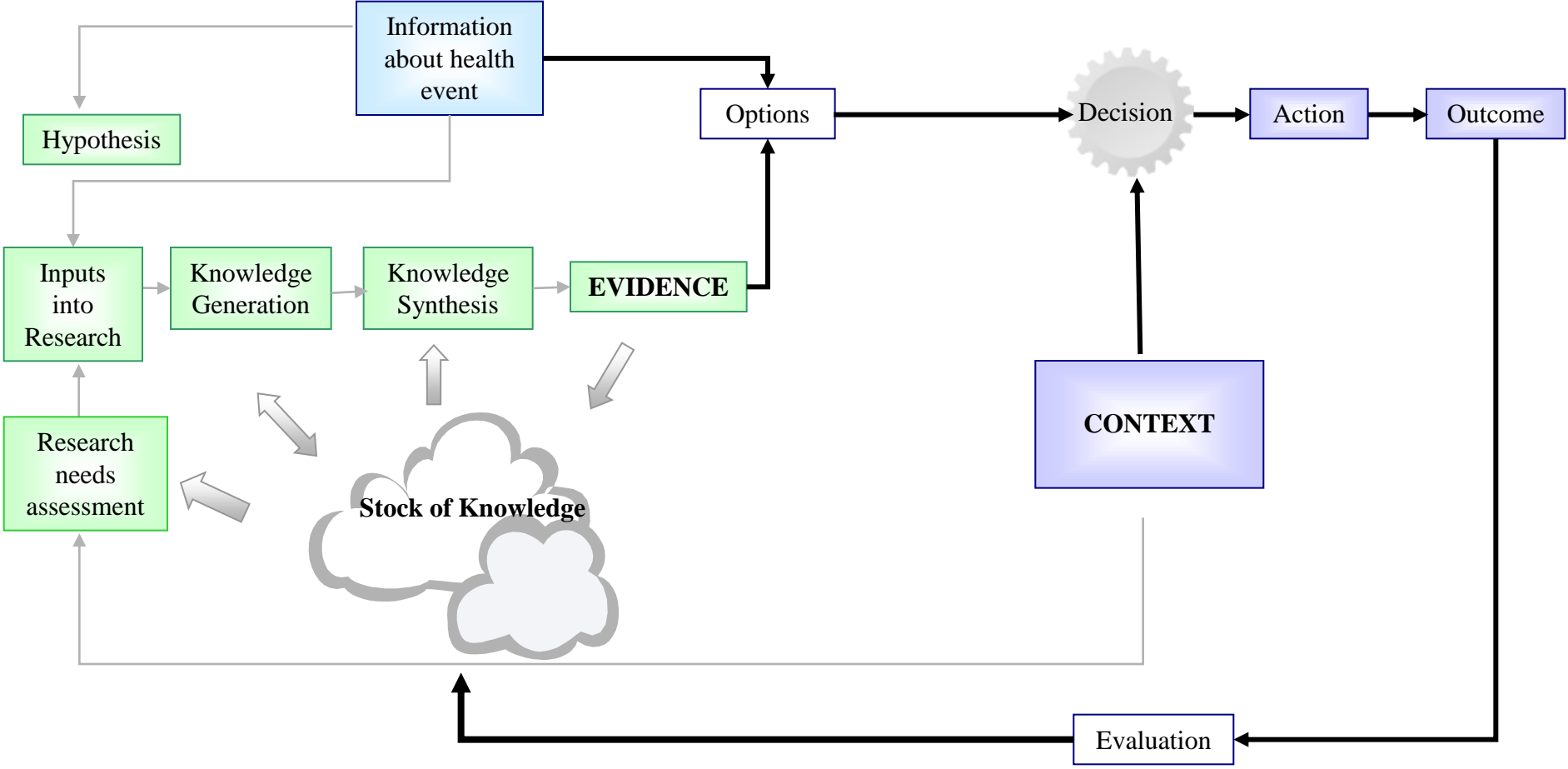






Generating and Sharing Knowledge

- Fesikh (Coptic dish for Sham al-Nessim)
Salted & fermented fish
Clostridium botulinum type E



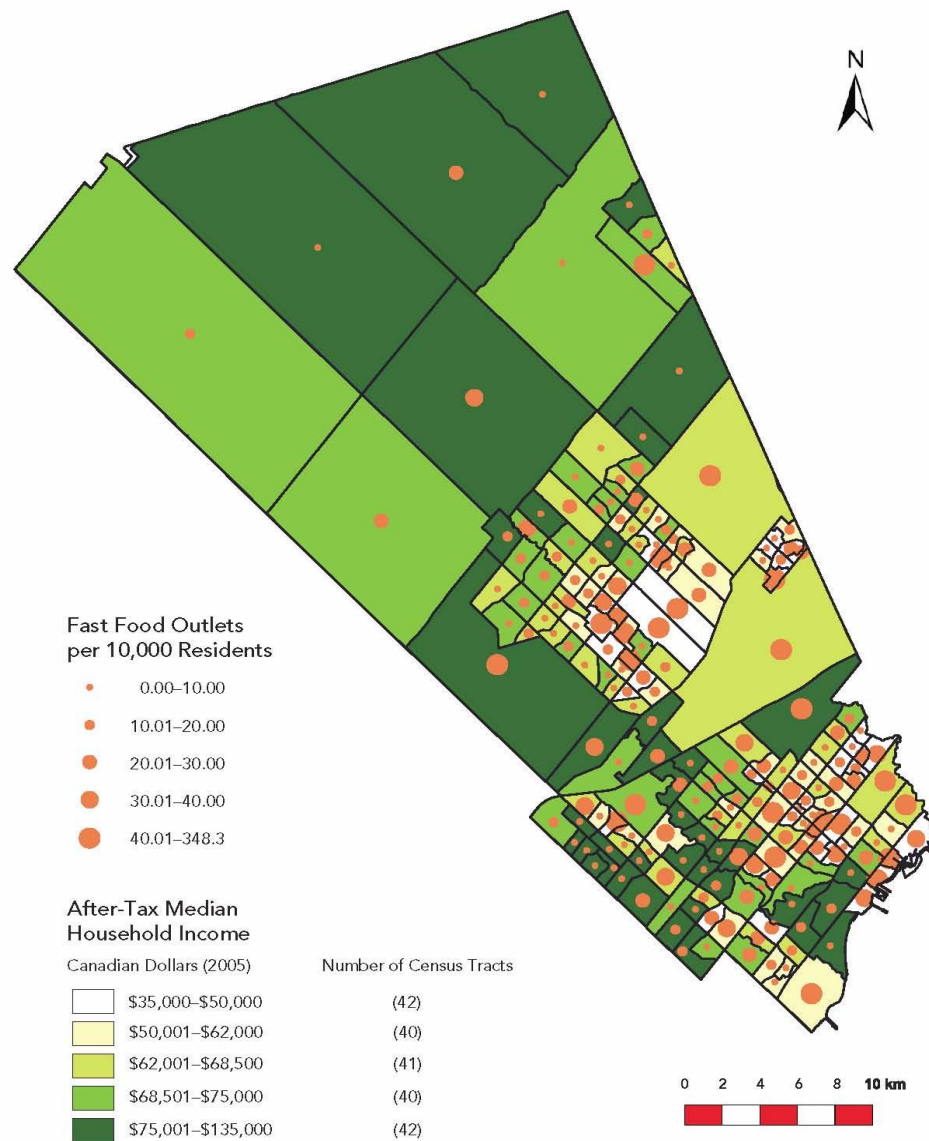
Challenging and Contextualizing Knowledge

Relevance of Evidence

- Can it work?
- Does it work?
- In what circumstances does it work?
- Is it acceptable and feasible?
- At what cost does it work?
- How are benefits and risks distributed?
- Is the capacity available?
- Is it worth doing?

Map 15.1

Fast Food Outlets by Household Income
and Census Tract, Peel, 2006



Synthesizing Evidence

FORMULA? NO THANKS. I'VE GOT A **TEST** TO STUDY FOR.

Babies don't get to choose whether they are fed breast milk or formula. But you do. And since your choice can affect your child's healthy development, you need to get all the facts first. For example, did you know that recent studies suggest formula fed babies have lower IQ scores? Is a child in your future? We can help you make an informed choice that's right for you and your baby.

www.formulaNOthanks.ca
905.799.7700

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Public Health



Formula feeding
impairs cognitive
performance

\$125,000 mass
media campaign

Peel Health

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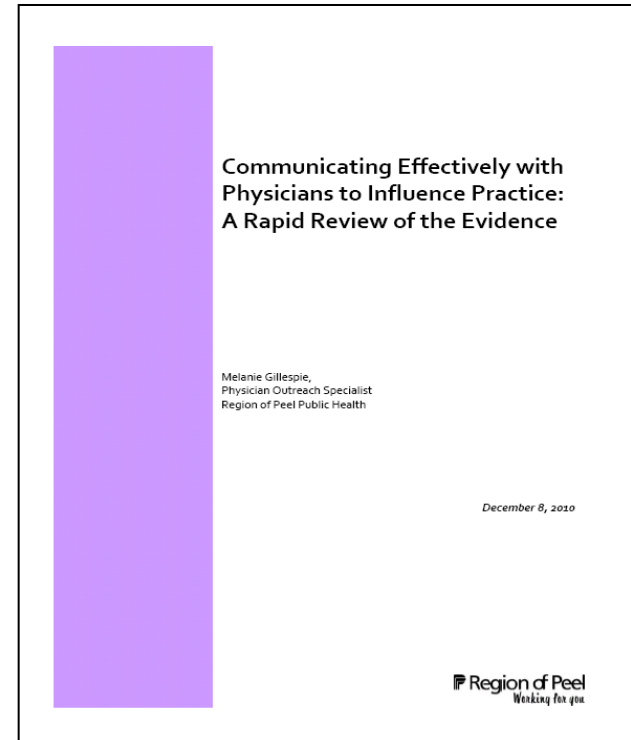


Problems in 2007

- Unsystematic searching for the evidence
- Uneven appraisal of research
- Finding evidence to support a solution

Rapid review process

- Problem definition
- Search
- Critical appraisal
- Data extraction
- Synthesis
- Applicability and transferability
- Recommendations
- Manager checklist
- Change management
- Knowledge transfer and exchange





Participants

- Manager-specialist pair
- Program team
- Mentors
- Director and Medical Officer of Health

Team Defines the Issue

Coverage Target for Influenza Immunization

Augustina Nagberi-Asseez, Analyst, Research and Policy
Susan Hertz, Supervisor
Loretta Rowan, Manager

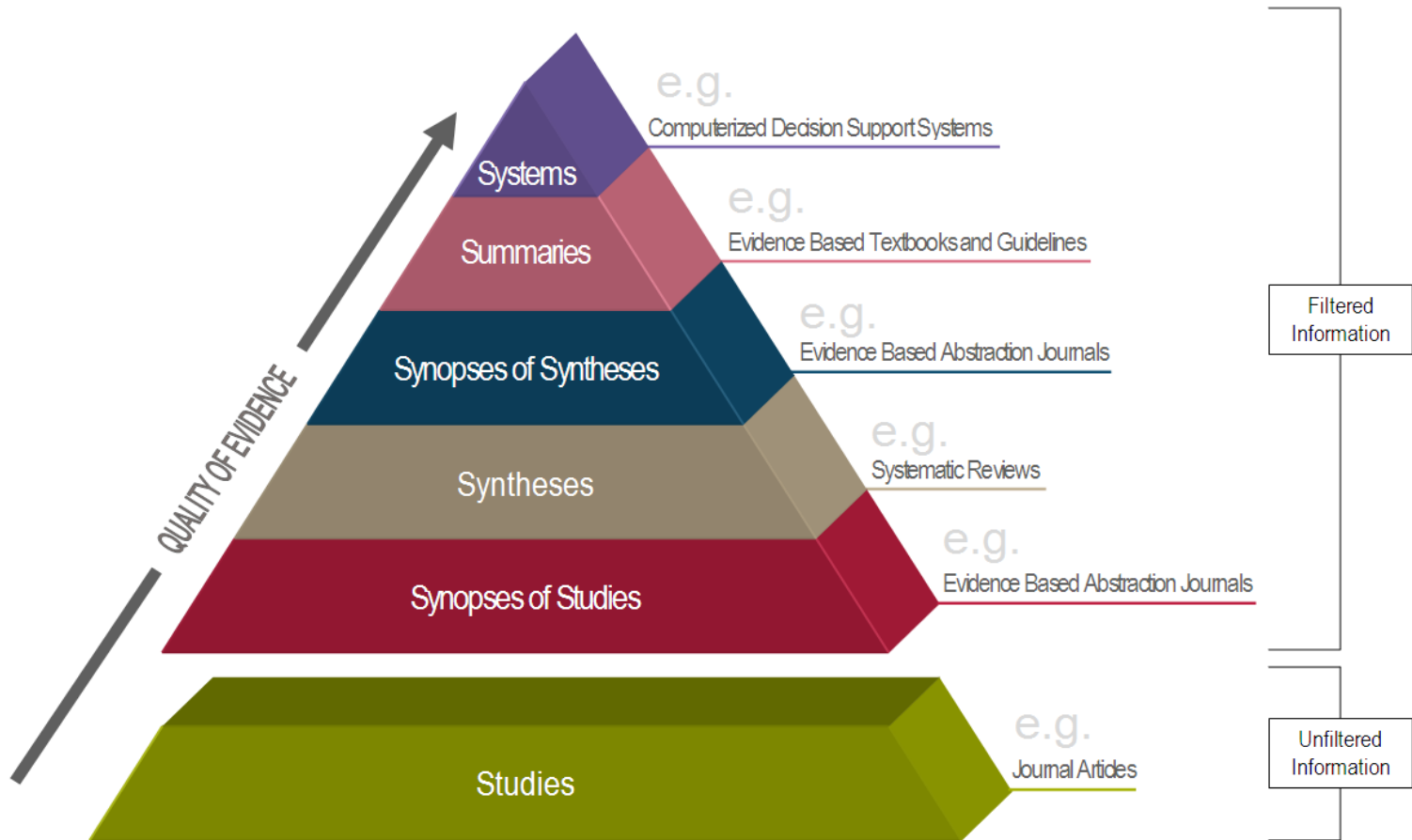
July 22, 2012

The Health Impacts of Exposure to Outdoor Tobacco Smoke: A Rapid Review of the Evidence

Franca Ursitti, Research and Policy Analyst, Health Hazard Investigation & Vector Borne Disease Program
Andrea Chieffari, Manager, Environmental Health
Region of Peel Public Health

July 2011

Levels and Sources of Public Health Evidence





Databases

Virtual library: 18

Typically use 3 to 4

Filtered sites

NICE

CDC community guide

HealthEvidence.ca



Critical appraisal process

- 2 independent reviewers
- Supports
 - Knowledge broker
 - Critical appraisal course
 - Critical appraisal club



Critical appraisal

Textbooks: Adapted template from Cornell University

Guidelines: Agree 2

Systematic reviews: health evidence or CASP

Qualitative: Various

Other study designs: CASP

Source: <http://www.peelregion.ca/health/library/critical-appraisal.asp>

Data Extraction

Source: Public Health Practice Effectiveness Project



eidm evidence-informed decision making

STEP 4 – DATA EXTRACTION FOR SYSTEMATIC REVIEWS

GENERAL INFORMATION AND QUALITY RATING FOR EACH REVIEW	DETAILS OF EACH REVIEW	DETAILS OF INTERVENTIONS INCLUDED IN REVIEW	OUTCOME MEASUREMENTS IN REVIEW	RESULTS OF REVIEW
Author(s) and date Country Quality rating Generalisability to local population	Number of primary studies included Types of studies included Search period Number of databases searched Inclusion and exclusion criteria	Description of interventions Intervention providers Intervention settings Theoretical frameworks Target groups	Primary outcomes Secondary outcomes	Main results of review Comments/limitations

Applicability and Transferability



Rapid Reviews

- obesity in children from birth to six years
- does food handler training improve food safety?
- infant feeding and cognitive development
- infant feeding and development of type 2 diabetes
- healthy weights and supportive environments: nutrition focus
- ethno-cultural factors that influence infant feeding practices among ethnically diverse women in Western countries.



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Data Synthesis

Appendix C

Table 1 – Summary of Included Articles of Food Handler Training Programs

Study, (country)	DESIGN (Quality Assessment)	Participants (number)	Intervention	Outcome (knowledge, attitude, behaviour and / or work practices)	Findings	Relevance Decision	Comments
1. Mann, 2001 (Canada) An update of Campbell et al's. 1998 review.	Systematic Review (strong) Searched for english and french language primary studies and reviews. Hand searched journals and unpublished studies for the period 1975 – 1999. Conducted relevance assessment and quality assessment.	Various 55 relevant studies captured. Of these, five food handler training studies (Kirsher, 1990; Cotterchio et al., 1998; Rinke et al., 1998; Waddell & Rinke, 1985; Ehiri, 1997) were rated as being of good enough quality (moderate) to be critically appraised.	Various including: Formal courses for Managers / Staff, Lecture, Home study, CD ROM Audio tape Manuals Workshops.	Changes to inspection scores (Kirsher, 1990; Cotterchio et al., 1998) Changes in knowledge (Rinke et al, 1975; Waddell & Rinke, 1985; Ehiri, 1997)	Of 55 relevant articles captured through the search, 48 were rated as being weak. Three of five studies (of moderate quality) (Cotterchio et al., 1998; Rinke et al., 1975; Waddell & Rinke, 1985) found food handler training to be effective in enhancing food safety knowledge and behaviour among food handlers. There was a lack of evidence in two studies (Kirshner, 1990; Ehiri et al., 1997) to support food handler training / certification.	INCLUDED Inclusion criteria met: Single studies included control group, studies were based in a commercial setting, and included food handler certification programs. It was the best, most current review found on the subject.	Sound methodology and transparency. Multiple interventions examined beyond food handler training. Problems with quality assessment methodology. Lack of rigour in the design of included single studies resulting in conclusions that could be overstated. NOTE: Mann rated many of the moderate and strong studies (10/14) from the Campbell review as weak.
2. Cates, S. et al., 2009 (USA)	Cohort Retrospective (moderate)	4,461 establishments	Certified kitchen manager (CKM)	Inspection scores based on 8,338 routine inspection results. Premises broken down into three categories (with liquor, without liquor, and taverns with food)	Restaurants with a CKM present during inspection were less likely to have a critical violation (CV) for certain issues (food source or handling (OR=0.80, P<0.01), facility or equipment requirements OR=0.85, P<0.05.) but equally likely to have a CV for other issues (hot holding, temperature abuse)	INCLUDED It was too recent to be included in Mann's review. Inclusion criteria met: Included control group, study was based in a commercial setting, and included food handler certification or mandatory programs.	There is a lack of adequate information on the training of CKM's. There was no explanation about why the types of premises were selected for the study. The fact that a manager is certified does not necessarily mean that the certification alone causes a reduction in certain violations. Having a manager present may have an effect on improving certain conditions. This was not stated in the limitations.

Questions?