

# FOOD ON OUR MINDS

## Diet, mental health, and the role of community food programs

Community Food Centres Canada Webinar  
Wednesday, April 9, 2014

Karen Davison, PhD, RD



**community food centres**  
CANADA good food is just the beginning



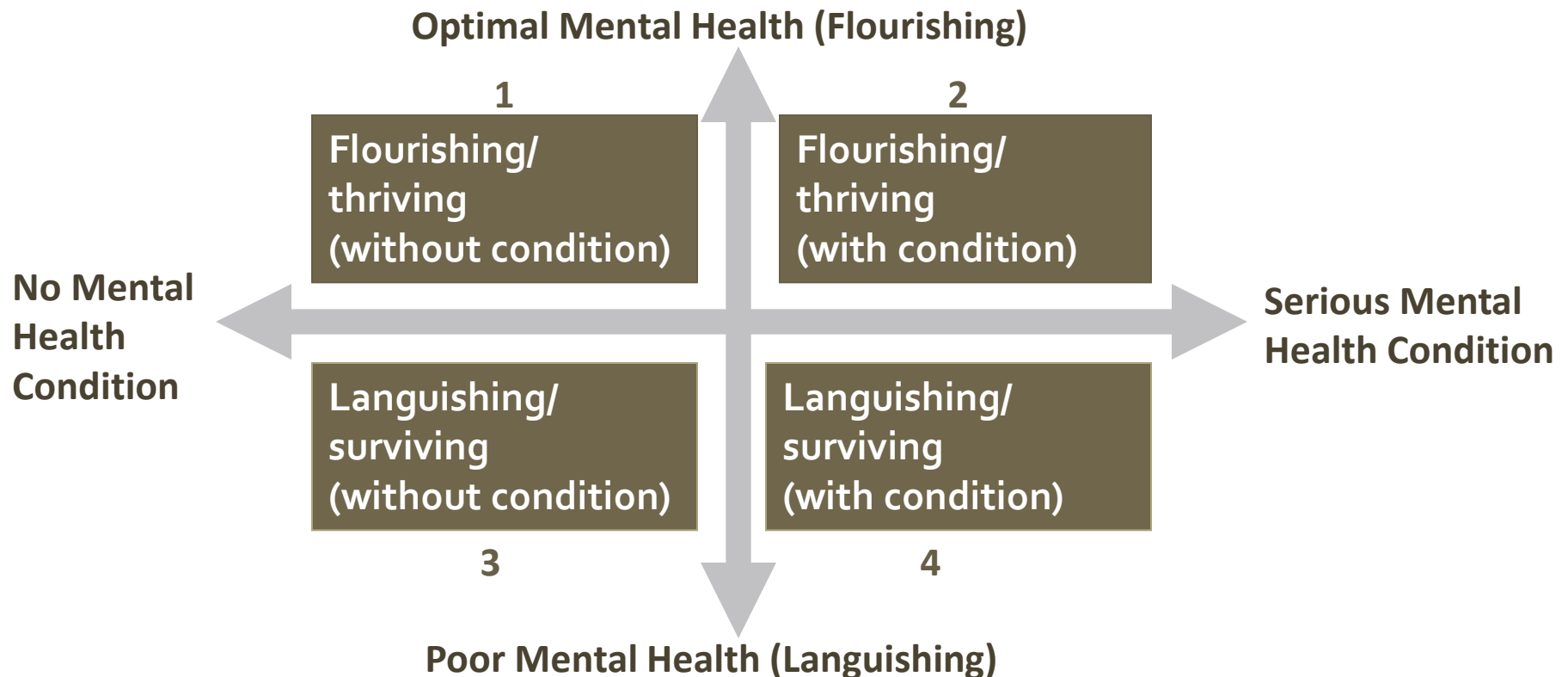
Critical Research in Health and  
Healthcare Inequities Unit

# Objectives

- Define mental health
- Describe the relationships between diet and mental health
- Describe structural barriers that impact mental health and nutrition
- Outline case examples that promote mental and nutritional health

# Mental Health Continuum<sup>1</sup>

**Mental health: “state of well-being...individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community”<sup>2</sup>**



<sup>1</sup>Keyes CLM (2002). Journal of Health and Social Research, 43: 207-222.

<sup>2</sup>WHO, September 2007 [www.who.int](http://www.who.int).

# Diet and Mental Health

Carbohydrates, Fats, Proteins

Vitamins, Minerals

Bioactive Substances

## Effects of Nutrient Deficiencies



Pantothenic Acid,  
Biotin, Folate,  
Vitamin B<sub>12</sub>,  
Chromium  
Iron, Magnesium  
Selenium, Zinc

Aggression<sup>1</sup>  
Anxiety<sup>2,3</sup>  
Depression<sup>3,4</sup>  
Fatigue<sup>5,6</sup>  
Irritability<sup>1,5,7</sup>  
Memory loss<sup>8</sup>  
Mental slowness<sup>7,8</sup>  
Poor coordination<sup>8</sup>

Diet influences: Brain, circulation, gut function, immune system, hormones

<sup>1</sup>Am J Clin Nutr (1980), <sup>2</sup>Ann NY Acad Sci (1992), <sup>3</sup>Biol Psychiatry (1991), <sup>4</sup>J Nutr Environ Med (1995), <sup>5</sup>J Clin Invest (1955), <sup>6</sup>JAMA (1940), <sup>7</sup>Nutr Rev (1983), <sup>8</sup>Br Med J (1956)

# Diet: Treatment in Mental Health

## “The Whole Person”

Food &  
Supplement Intake

Mental Health  
Symptoms

Contextual  
Factors



## Goals

- Improve and stabilize the individual's health (e.g., anti-inflammatory diet)
- Maximize the effects of medication; prevent or minimize side effects
- Support healthy eating behaviours and weight
- Function at the highest level of independent living



# Nutrition and Mental Health Evidence

Description	Reference
<ul style="list-style-type: none"> <li>■ Mediterranean diet; ↓ depression</li> <li>■ Fast &amp; commercial foods; ↑ depression</li> </ul>	<b>Sánchez-Villegas A et al.:</b> <i>Arch Gen Psychiatry</i> 2009; 66:1090; <i>PLoS One</i> 2011;6:e16268; <i>Public Health Nutr</i> 2012;15:424
<ul style="list-style-type: none"> <li>■ Western &amp; traditional diets; depression</li> <li>■ Red meat intake; mood disorders</li> </ul>	<b>Jacka FN et al.:</b> <i>Am J Psychiatry</i> 2010; 167:305; <i>Psychother Psychosom</i> 2012;81:196
<ul style="list-style-type: none"> <li>■ Nutrient intakes; mental functioning</li> <li>■ Many links: diet and mental health</li> </ul>	<b>Davison KM et al.:</b> <i>Can J Psychiatry</i> 2012; 57(2):85-92; DC Nutrition & Mental Health Role Paper

**Healthier diets associated with improved mental health**



**Relationship between habitual dietary intake and depression somewhat explained by socioeconomic circumstances**

(Jacka FN et al (2014). PLoS ONE 9(1): e87657.doi:10.1371/journal.pone.00087656)

# Poverty and Mental Health

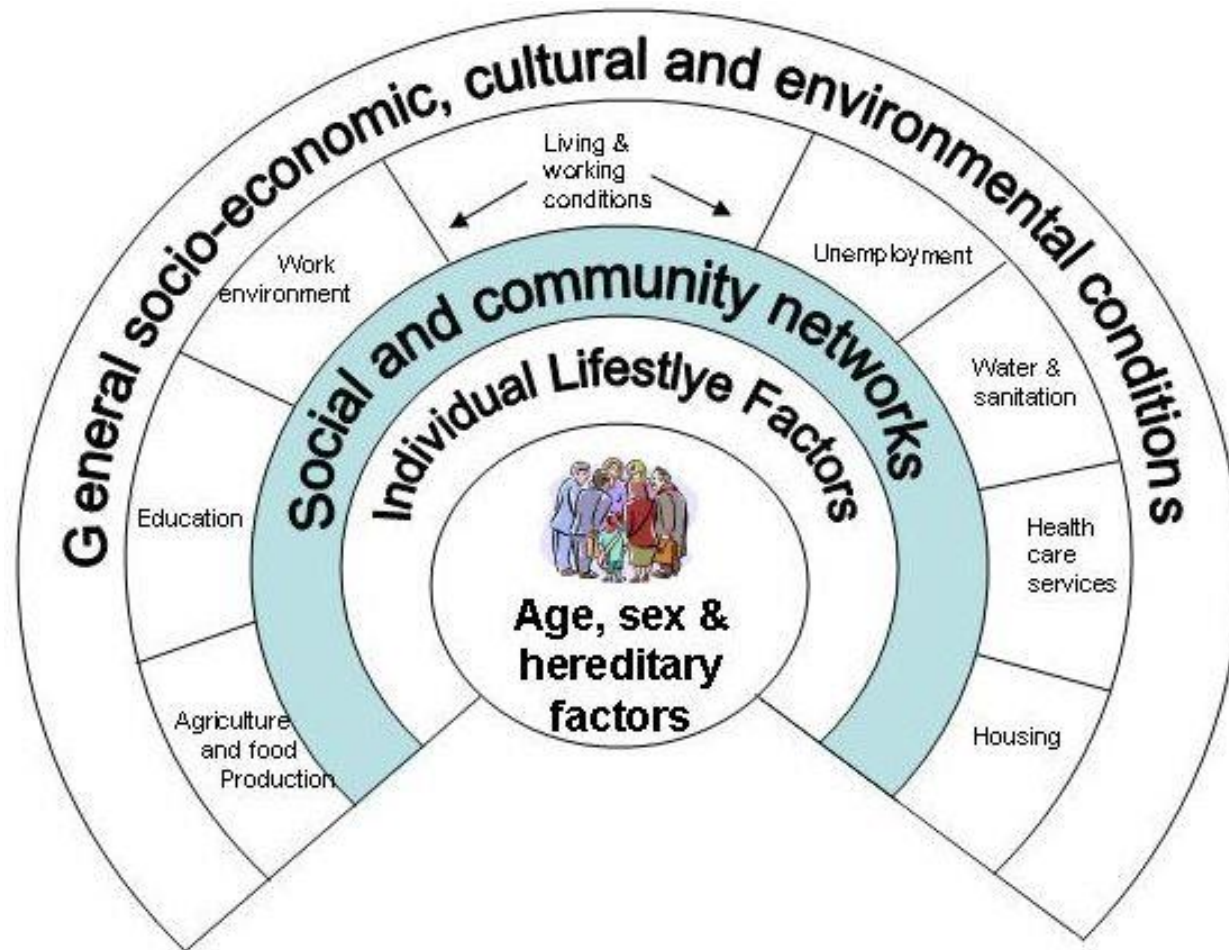


# Groups At Risk: Intervention Examples

<b>Groups At Risk For Social Exclusion</b>	<b>Challenges</b>	<b>Features of Solution-Focused Interventions</b>
<ul style="list-style-type: none"><li>■ Aboriginal Peoples</li><li>■ Immigrants</li><li>■ Refugees</li><li>■ LGBTQT community</li><li>■ Incarcerated/ institutionalized individuals</li></ul>	<ul style="list-style-type: none"><li>■ Cultural trauma</li><li>■ Poverty</li><li>■ Unemployment</li><li>■ Underemployment</li><li>■ Inadequate housing</li><li>■ Cultural stress</li><li>■ Prejudice</li><li>■ Violence</li><li>■ Discrimination</li></ul>	<ul style="list-style-type: none"><li>■ Prevention-focused</li><li>■ Trauma-informed</li><li>■ Harm reduction</li><li>■ Accessible and navigable</li><li>■ Tailor to key groups</li><li>■ Includes cultural sensitivity and anti-oppression training</li><li>■ Individual nutrition care (mentor/coach)</li></ul>



# Mental Health Promotion



**A need for integrated and population health approaches**

# Prevention Programs: Examples



<b>Life Stage</b>	<b>Examples</b>
<b>Perinatal</b>	Canada Prenatal Nutrition Program
<b>Early childhood</b>	Aboriginal Head Start Mind, Exercise, Nutrition..Do It! <sup>TM</sup> (MEND)
<b>Middle to late childhood</b>	Healthy Buddies <sup>TM</sup> The Student Body: Promoting Health At Any Size
<b>Young adults</b>	Cook It Up! (community-based cooking program)
<b>Adults</b>	Healthy Campuses, Healthy Minds – CMHA Minding Our Bodies – CMHA (Ontario) Dude’s Club – Vancouver Native Health Society Healthy worksite programs
<b>Older adults</b>	Congregate healthy meal programs (e.g., Winnipeg Health Authority)

# A Future for Mental Health

- Multiple lines of evidence linking nutrition and mental health
- Need to address structural barriers that impact nutritional and mental health
- Integrated programs that incorporate nutrition and mental health-related interventions can produce high returns on investment

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