

Dietitians and food systems in the 21st century

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2018 ODPH Nutrition
Exchange

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**This is a story that
begins and ends
with students.**

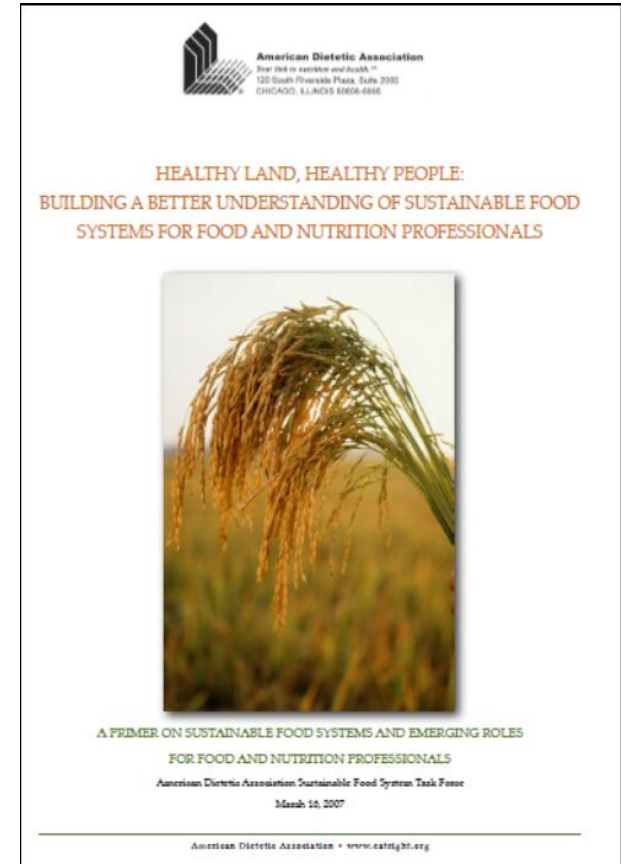
Who am I? My slant on 'food systems'...

- Registered Dietitian
 - University of Guelph, Applied Human Nutrition
- Public health research and training
 - University of Alberta, School of Public Health
 - University of Waterloo, Public Health and Health Systems
- School of Nutrition (Faculty of Community Services)
- Personal experience in family farming



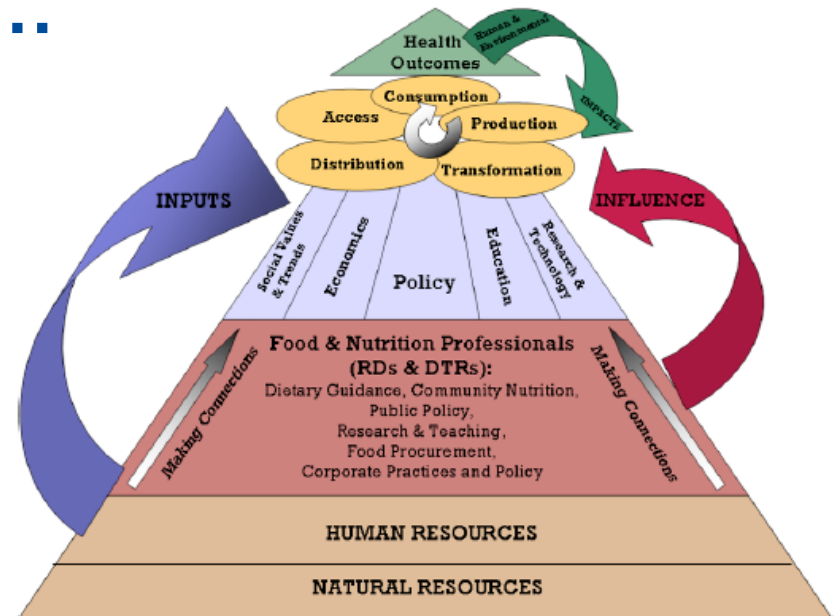
Where have we been and where are we going?

- 3 illustrative stories
 - As a learner
 - As a researcher
 - As an educator
- Preliminary survey results
 - ODPH Food Systems Work Group
- Next steps



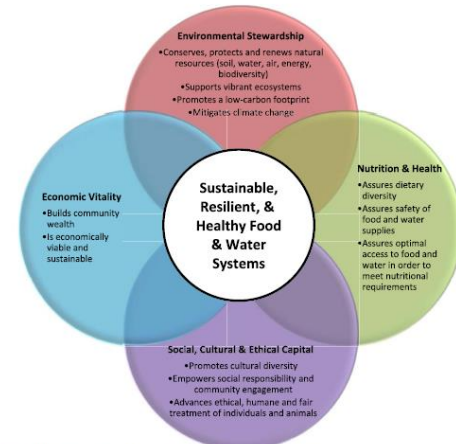
Let's define food systems...

- comprised of all of the entities and activities related to our food supply including agricultural **production, transformation, distribution, access, consumption and (disposal/renewal)**
- Sustainable food systems (SFS):
 - Environmental stewardship
 - Economic vitality
 - Nutrition & health**
 - Social, cultural, & ethical capital



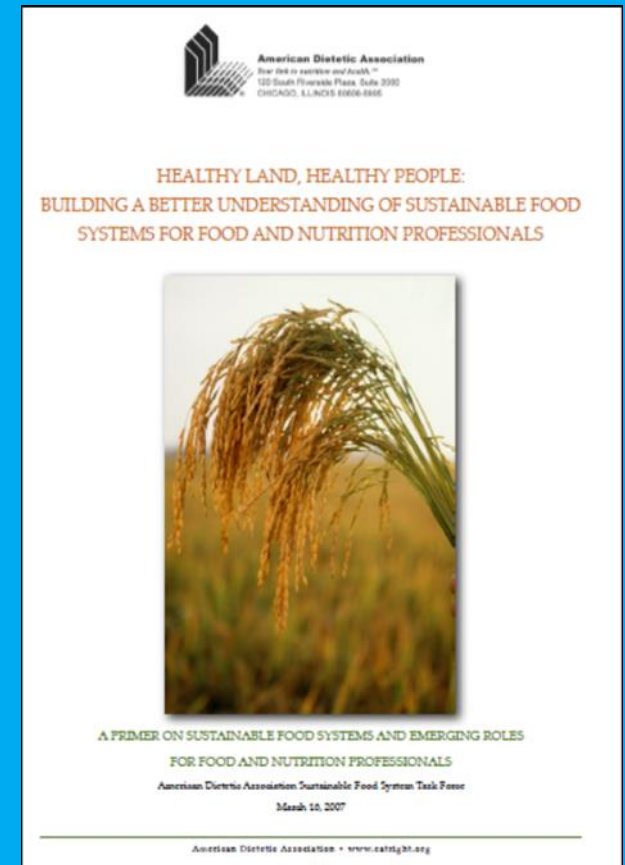
(ADA SFS Task Force, 2007)

Figure 4. Sustainable Food Systems: Emerging Roles for Food and Nutrition Professionals



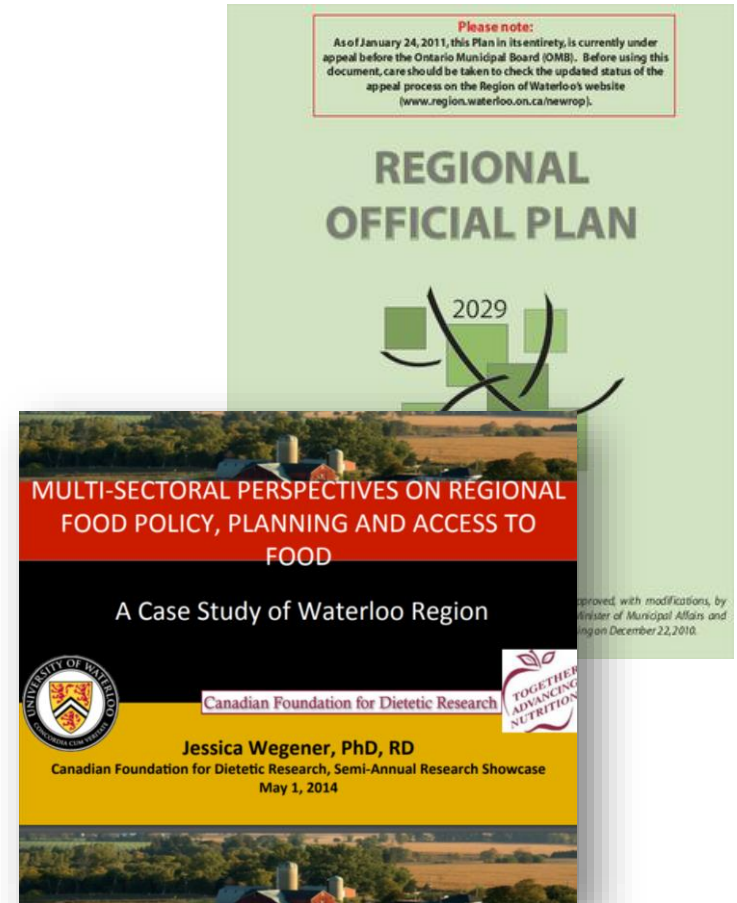
Tagtow et al., (2014) SOPP for Registered Dietitian Nutritionists (Competent, Proficient, Expert) in Sustainable, Resilient, and Healthy Food and Water Systems.

“[in 2005]...it was noted there was a need to **increase ADA members’ awareness of sustainable food systems** and encourage ADA members to **assume leadership roles in the area of sustainable food systems**”



1. “RDs in uncharted territory” (learner perspective)

- Waterloo Region (doctoral research)
 - In-depth interviews with key food systems stakeholders (n=48)
 - Regional and municipal government; public health professionals; professional planners; growers, consumers, advocates, etc.
- Public health professionals (including RDs) can play a significant role in promoting sustainable food systems
 - Nurturing strategic partnerships
 - Advocating for ‘access to food’ language in official plans
 - Navigating “unchartered territory”
 - Having an internal champion or mandate to support SFS work

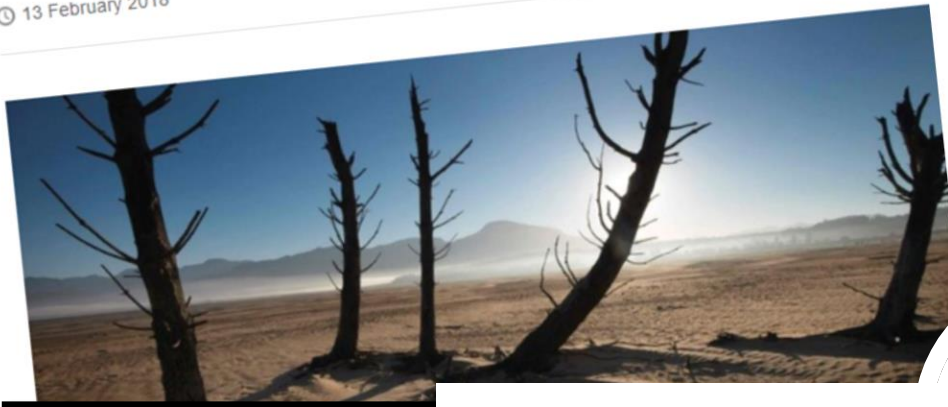


NEWS

[Home](#) [Video](#) [World](#) [US & Canada](#) [More](#)[Health](#) [More](#)

Cape Town drought declared a 'national disaster'

13 February 2018



Cape Town water crisis

12 April

Supply expected to run out

87 litres Current daily consumption limit**50 litres** Consumption limit from 1 February**27.1%** Current reservoir level**13.5%** Reservoir level triggering a water shut down

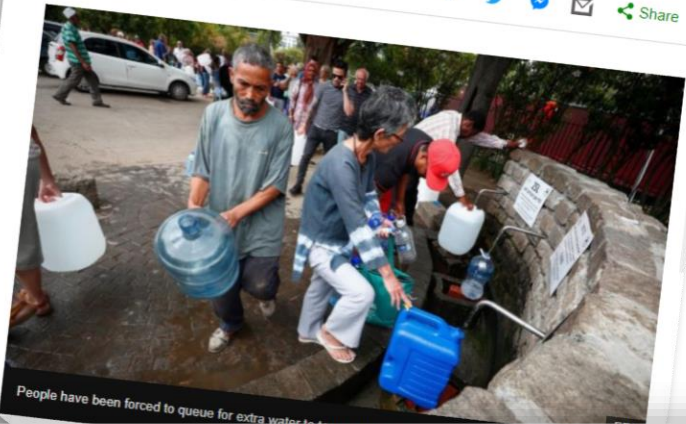
Source: Cape Town local authorities



Town hurtling

Cape Town water crisis: 'My wife doesn't shower any more'

24 January 2018




People have been forced to queue for extra water

Cape Town's most expensive restaurant to use paper plates to help tackle the

FINITE RESOURCES

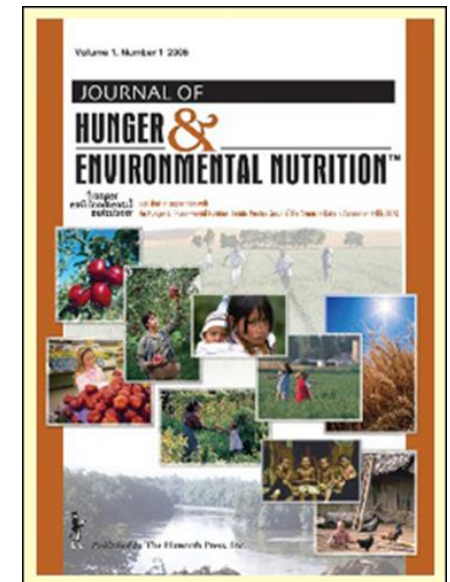
12




- 
- The background of the slide is a photograph of a modern classroom or study area. In the foreground, there are several white tables with orange and red chairs. In the background, a woman with dark hair is sitting at a table, working on a laptop. She is wearing a white long-sleeved shirt. The room has large windows with white frames, and the overall atmosphere is bright and professional.
- 1. Are we, as dietetic professionals, prepared to assume leadership roles? and;**
 - 2. Are we equipped to support trainees for 21st century food system challenges?**

2. “Beyond HEN: there’s Canadian work to be done!” (researcher perspective)

- Hunger & Environmental Nutrition (HEN) practice group
 - Special supplement in JHEN in 2009 (Vol 4; Issue 3-4) (US focus)
 - E.g., Food Systems and Public Health: **Linkages** to Achieve Healthier Diets and Healthier Communities (Story et al., 2009)
- Shift towards “food systems and public health”
(education/training-focused research)



A blurred photograph of a family (two adults and a child) walking away from the camera through a field of tall grass or crops. The scene is backlit by a bright sun, creating a strong lens flare and a warm, golden glow across the entire image. The figures are silhouetted against the bright light.

Are there examples of sustainable food system education, practical training and professional development among public health practitioners and trainees published in the past 10 years?

Methods

- 4 electronic databases searched in May 2017; bibliography hand searching and expert consultation
- Inclusion criteria: relevant to public health practice and public health practitioners (PHP) (education, training, and professional development related to SFS); published between 2007-2017
- A clear reference to sustainability in the context of “food systems”

Results

- 51 articles identified and grouped into 4 categories guided by team deliberation: only Category 2 discussed here
- N=22 (analyzed 19 due to overlap)
- Fourteen articles were set in developed countries/nations
 - USA (n 8), Australia and New Zealand (n 4), Canada (n 1) and Europe (n 1), no geographical context (n 3), and two based on North-East Asia
- All included one “working idea” to introduce or to enhance existing public health training and educational activities and approaches

Results: “Working ideas” to support SFS in PH

Education (university) (n 12)	Practical Training (PT) (n 10)	Professional Development (n 9)
Curricular changes <ul style="list-style-type: none"> Courses in: ecosystems; impacts of climate change on health and sustainability; food system sustainability Environmental and food justice issues 	<ul style="list-style-type: none"> Climate change and food systems sustainability in PT and professional competency updates Critical reflection and experiential learning (service learning) 	Specific to dietetics (n 7) <ul style="list-style-type: none"> enhance knowledge and confidence in practising sustainability empower meaningful collaboration with other sectors in addressing these global issues
<ul style="list-style-type: none"> Applied to medicine, nursing, dietetics and nutr, food service and social work Cross-disciplinary education 	E.g., reinforce/support knowledge about climate change and sustainability-promoting practices for adaptation and mitigation (health promotion in AU)	<ul style="list-style-type: none"> Self-reflection

Key Highlights

- A moral and professional obligation
- Growing interest in SFS among public health professionals
- The majority (2/3) of the articles related to dietitians
- Significant gap in practical training and a need to build **SFS competence** among practitioners and trainees



Standards of Professional Performance (SOPP)

for Registered Dietitian Nutritionists (RDN) in Sustainable, Resilient, and Healthy (SRH) Food and Water Systems (J Acad Nutr Diet 114; 3:475-488)

- A guide for self-evaluation and expanding practice; a way to identify areas for professional development; a tool for demonstrating competence in addressing food and water systems issues when delivering nutr/dietetic services

Role	Examples of use of SOPP documents by RDNs in different practice roles
Public health practitioner	An RDN working with clients of a nutrition-assistance program notices an increase in the number of clients who are unable to use their local water supply for food preparation due to contamination. The RDN wants to become more active in advocating for changes in local regulations to protect the water supply for her clients. The RDN uses the SOPP to evaluate his or her level of SRH food and water systems expertise, and identify areas for further education in order to most effectively advocate for policy changes to protect the safety of the local water supply.

Standards of Professional Performance (SOPP)

for Registered Dietitian Nutritionists (RDN) in Sustainable, Resilient, and Healthy (SRH) Food and Water Systems (J Acad Nutr Diet 114; 3:475-488)

Levels of Practice	Description
Competent Practitioner	<ul style="list-style-type: none"> is learning principles of sustainability and resilience as applied to healthy food systems; developing skills to integrate food system sustainability and resilience into all practice decisions
Proficient Practitioner	<ul style="list-style-type: none"> has deeper understanding of SRH food systems-related practice; better equipped to apply evidence-based SRH guidelines and best practices; can modify/tailor guidelines to unique practice situations
Expert Practitioner	<ul style="list-style-type: none"> demonstrates a more intuitive understanding of how issues of sustainability and resilience can be integrated into dietetics practice; high level of technical knowledge and skills; developed extensive network of colleagues and resources to implement food systems sustainability and resilience; conversant in the broad terminology of other fields and appreciates when it is important to consult other colleagues (e.g., agronomists, economists, environmental scientists, public policy analysts)

Commentary

(based on Scoping Review)

Potential Challenges:

- Training gaps
- Organizational culture
- Outside influences
- Competing interests and scope



Equipping Future Generations of Registered Dietitian Nutritionists and Public Health Nutritionists: A Commentary on Education and Training Needs to Promote Sustainable Food Systems and Practices in the 21st Century

Jessica Wegener, PhD, RD*

ARTICLE INFORMATION

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*Registered by the College of Dietitians of Ontario (Ontario, Canada).

CALLS FOR REFORM IN PUBLIC HEALTH EDUCATION over the last 100 years have focused on the practical training and education of physicians, the group that dominated the public health workforce in the early 20th century.^{1,2} A central argument for reform is that for practitioners to be effective in protecting and promoting health, professional education needs to keep pace with current and evolving challenges. Fried and colleagues³ identify globalization and urbanization as challenges facing today's public health workforce, which now includes a broad range of practitioners focused on population-level prevention and interventions that address the determinants of health rather than the treatment of disease.⁴ Among the broader group of public health providers, the activities and core functions of registered dietitian nutritionists (RDNs) and public health nutritionists (PHNs) are noteworthy concerning food and nutrition actions and include planning nutrition interventions, evaluating the effect of policies, and developing strategies to address food-related problems. Increasingly, there is also a need for action to address food system problems.

Of importance to public health practitioners, Story and colleagues⁵ and Wallinga⁶ outline a series of concerns related to the global industrial food system. These include the widespread availability of nutrient-poor foods, unhealthy dietary patterns contributing to a rise in diet-related chronic diseases, threats to agricultural land for food production, food

insecurity, and limited access to healthy food retail in cities. These have been described collectively as "wicked problems"⁷ and suggest there are limits to the sustainability of the current global food system.⁷ Thus, echoing earlier calls for reform, updates to education and practical training are needed to equip present and future generations of RDNs and PHNs for this century's food system challenges.

The purpose of this commentary is to highlight the growing recognition of sustainable food systems among RDNs and PHNs (among the broader group of public health practitioners) and to present a case for sustainable food system-specific education, practical training, and professional development for trainees and practitioners at various career stages. The term *trainee* refers to students or interns in a university undergraduate program in nutrition or graduate program in public health or community nutrition. The objectives of this article are: (1) to describe efforts to raise awareness and interest in sustainable food systems among RDNs and PHNs; (2) to outline potential opportunities for updates to education and practical training using dietetics as an example; and (3) to identify potential challenges related to the integration of sustainable food system principles within current education and practical training.

Governments and public health officials are paying closer attention to sustainable food systems and sustainable diets as a strategy to promote and protect human and planetary health. Sustainable diets are defined as a pattern of eating that encourages health and well-being and provides food security for the present population while sustaining human and natural resources for future generations.⁸ Sustainable diets are a key component of sustainable food systems; promoting sustainable diets and reducing food waste have been cited among the top five solutions to global warming.⁹ Although the promotion of sustainable diets holds promise within public health practice, divided interests such as between local and organic production practices and plant- and animal-based protein sources have prevented the establishment of a widely accepted definition.

Despite issues with the definition, RDNs and PHNs are playing important roles in advocating and updating dietary guidelines to reflect issues of sustainability in the United States, Brazil, Germany, Sweden, and Qatar.^{8,10-12} Dietary guidelines nudge consumers toward healthy eating and can

“War” will continue on the 21st century dietary guideline front:

“...Dietary guidelines and strategies to promote **sustainable food systems** are important to our work, yet long-term acceptability of them will **depend on the potential to effectively educate the population on the relevance and importance of sustainability**”.

(Seed, 2015)



Sustainable food systems and sustainable diets

Moving forwards

- A clear view of the multiple co-benefits of SFS activity
- Continuing professional development in food systems
- Supportive allies
- Policy statements (ideally multiple organizations); collective endorsements
- Practical training in SRH food systems

Policy Statement Sustainable Diets

Summary

'What, and how much we eat directly affects what, and how much is produced. We therefore need to consume more 'sustainable diets' – diets that have lower environmental impacts, and are healthier.'

– Tara Garnett, 2014 (1)

Dietitians have an important role to play in the facilitation of sustainable diets for a number of reasons. The current UK diet does not have the right balance of food recommended for a healthy, sustainable diet (2). What's more, diet-related diseases cost the NHS around £6bn each year (3). Of course these UK issues are part of a wider global picture. Nearly 800 million people in the developing world are undernourished and about two billion are deficient in key micronutrients (4). There is an increasing demand for food from a growing human population, and a challenged food system that is already stressed by the degradation of global ecosystems (5). Food systems are globally intertwined, and although dietitians will have patients, being aware of this

PRINCIPLES OF A HEALTHY, SUSTAINABLE FOOD SYSTEM

In June 2010, the American Dietetic Association, American Nurses Association, American Planning Association, and American Public Health Association initiated a collaborative process to develop a set of shared food system principles. The following principles are a result of this process and have been collectively endorsed by these organizations.

We support socially, economically, and ecologically sustainable food systems that promote health – the current and future health of individuals, communities, and the natural environment.

A healthy, sustainable food system is:

HEALTH-PROMOTING

- Supports the physical and mental health of all farmers, workers and eaters
- Accounts for the public health impacts across the entire lifecycle of how food is produced, processed, packaged, labeled, distributed, marketed, consumed and disposed

SUSTAINABLE

- Conserves, protects, and regenerates natural resources, landscapes and biodiversity
- Meets our current food and nutrition needs without compromising the ability of the system to meet the needs of future generations

RESILIENT

- Thrives in the face of challenges, such as unpredictable climate, increased pest resistance, and declining, increasingly expensive water and energy supplies

DIVERSE IN

- Size and scale—includes a diverse range of food production, transformation, distribution, marketing, consumption, and disposal practices, occurring at diverse scales, from local and regional, to national and global
- Geography—considers geographic differences in natural resources, climate, customs, and heritage
- Culture—appreciates and supports a diversity of cultures, socio-demographics, and lifestyles
- Choice—provides a variety of health-promoting food choices for all

FAIR

- Supports fair and just communities and conditions for all farmers, workers and eaters
- Provides equitable physical access to affordable food that is health promoting and culturally appropriate

ECONOMICALLY BALANCED

- Provides economic opportunities that are balanced across geographic regions of the country and at different scales of activity, from local to global, for a diverse range of food system stakeholders
- Affords farmers and workers in all sectors of the system a living wage

TRANSPARENT

- Provides opportunities for farmers, workers and eaters to gain the knowledge necessary to understand how food is produced, transformed, distributed, marketed, consumed and disposed
- Empowers farmers, workers and eaters to actively participate in decision-making in all sectors of the system

A healthy, sustainable food system emphasizes, strengthens, and makes visible the interdependent and inseparable relationships between individual sectors (from production to waste disposal) and characteristics (health-promoting, sustainable, resilient, diverse, fair, economically balanced, and transparent) of the system.

3. “Getting past the ‘consumption-focused’ mindset” (educator perspective)

- RDs do more than tell people what to eat
- Tensions between food system players and perspectives
 - Need for interprofessional education and collaboration
 - Need for experiential learning opportunities
- “Let-me-out-of-the-classroom!” sentiments



Student Survey (Winter ‘17, ‘18)

Preliminary results...



→ DESIGN SURVEY → **PREVIEW & SCORE** → COLLECT RESPONSES → ANALYZE RESULTS

Ontario Dietitians in Public Health: Food Systems Working Group (Needs Assessment, Survey 1)

- Online survey of ODPH Food System Work Group members
- March/April 2018
- To better understand ODPH FS activities and assess priorities/needs for research (partnership)

OK

1. Please list examples of 'typical' or 'regular/day-to-day' activities that you feel best

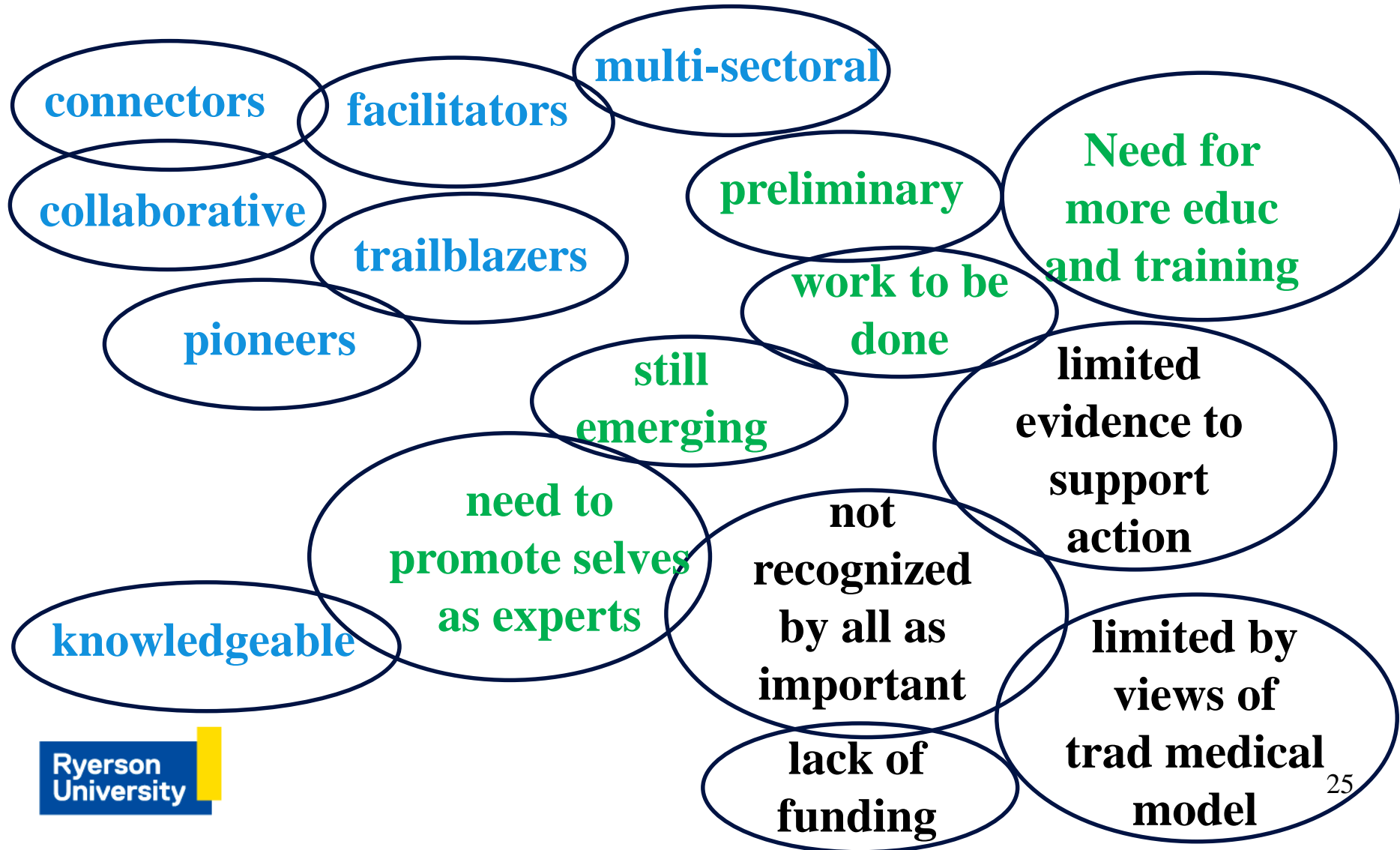
Q1. How do ODPH RDs describe their food system-related activities?

- network & consult with communities, key stakeholders, external and internal partners
- support/provide leadership for FPCs, food charters, food strategies, work groups, coalitions
- plan, implement and evaluate community food initiatives; conduct needs assessments
- participate/inform/advocate for policy changes (official plans; dietary guidelines)
- study and report (academic/grey literature incl best practices)

Q2. What concerns would you want to address to promote a healthier SFS in the community(s) you serve?

- Slow progress towards a SFS vision
 - developed/achieved through funded and coordinated network; plans and commitments entrenched in policy
- Ongoing challenges re access to healthy, local foods
- Need for land use plans for farmland protection, food growing, and food distribution
- Limited appreciation among youth for healthy food, cooking, food production

Q3. When you think of the past and present efforts of dietitians in public health in promoting healthier SFS, what words first come to mind?



Q4. Research Needs

- **A better understanding of the role of dietitians in public health (and HUs) in food systems**
 - Unique contributions/unique areas of expertise
 - Key messages and issues
 - Positioning of work within current PH transition/provincial standards
 - **Examples of best practices, success stories*, high impact action areas**
 - Working with planners, agricultural sector
 - Addressing issues affecting food access, food security
 - Facilitating shifts in consumer behaviours (e.g., sustainable diets)
 - Supporting composting, waste management at all levels
- *Particular interest in rural areas

Q5. Partnership Needs

- Other public health dietitian organizations (national/international)
- Organizations working toward food system change (shared values; public/private/non-profit)
- Government (all levels)

Q6. Resource Needs

- Glossary of terms; SFS primer
- Position paper for role of public health professionals in SFS
- Advocacy tools; talking points
- “How to” and business cases (sector and partner-specific)

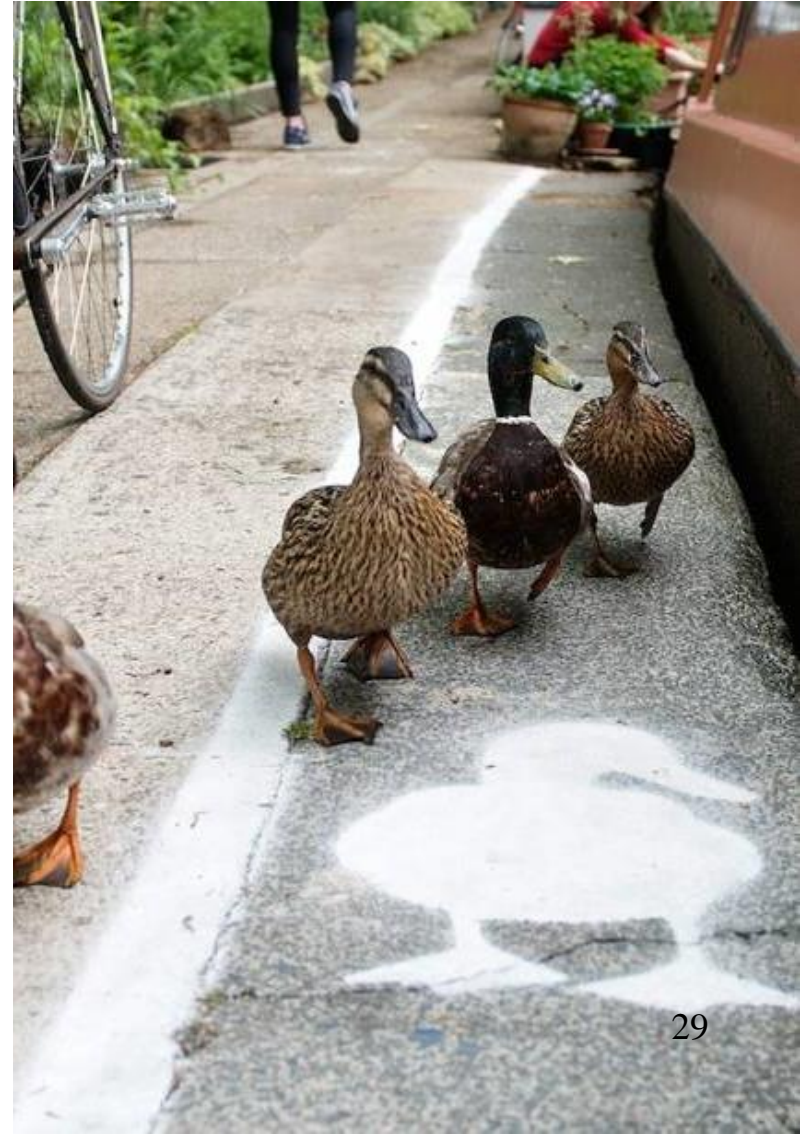


**What is next for current and
aspiring dietetic professionals
in public health?**

Getting our ducks in a row...

Challenges in SFS education, training, and practice in public health

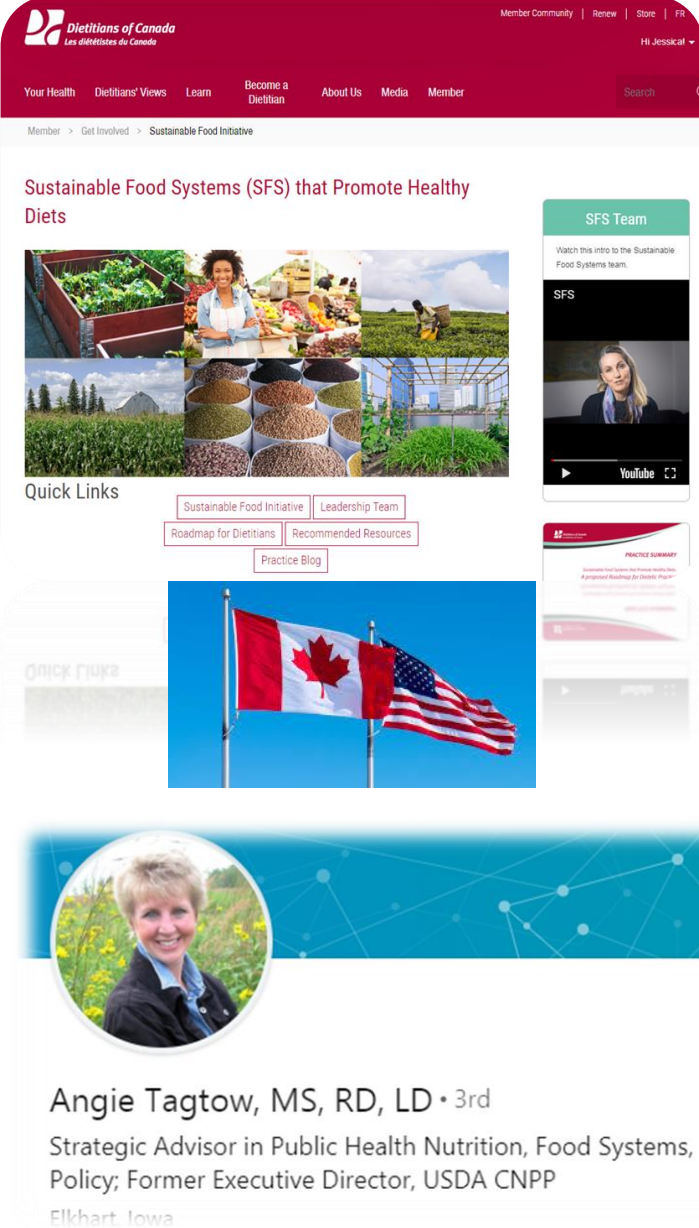
- Workforce capacity
- Local mandate
- Resources for SFS work (across practice areas)
 - Human and financial



A shift in the right direction

Opportunities

- Students are eager to apply food systems learning outside the classroom
- Revised Continuing Competence Program Workbook for RDs in Alberta
 - Identify food system learning needs under PPH area of practice
- National dietetic organizations developing policy statements and toolkits (e.g. UK)
- Canadian leadership from DC
- **Can we form a Canadian/American community of practice in food systems? (personal discussions with Angie Tagtow)**



The screenshot shows the Dietitians of Canada website. The header includes the logo and navigation links: Member Community, Renew, Store, FR, and a search bar. The main content area is titled "Sustainable Food Systems (SFS) that Promote Healthy Diets". It features a collage of images related to food systems, including a woman in a field, a greenhouse, and various food products. Below the collage are "Quick Links" for the Sustainable Food Initiative, Leadership Team, Roadmap for Dietitians, Recommended Resources, and Practice Blog. On the right, there is a "SFS Team" section with a video player and a "PRACTICE SUMMARY" document. At the bottom, there is a profile for Angie Tagtow, MS, RD, LD • 3rd, Strategic Advisor in Public Health Nutrition, Food Systems, & Policy; Former Executive Director, USDA CNPP, Elkhart, Iowa.

Dietitians of Canada
Les diététistes du Canada

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Search

Member > Get Involved > Sustainable Food Initiative

Sustainable Food Systems (SFS) that Promote Healthy Diets



Quick Links

- Sustainable Food Initiative
- Leadership Team
- Roadmap for Dietitians
- Recommended Resources
- Practice Blog

SFS Team

Watch this intro to the Sustainable Food Systems team.

SFS

YouTube

PRACTICE SUMMARY

Sustainable Food Systems and Healthy Diets: A Practical Roadmap for Dietitians

Angie Tagtow, MS, RD, LD • 3rd

Strategic Advisor in Public Health Nutrition, Food Systems, & Policy; Former Executive Director, USDA CNPP

Elkhart, Iowa

**It is a new era in public health nutrition.
Education, practical training and
continuing professional development in
sustainable food systems should be a key
priority.**