

# CULINARY MEDICINE LABS: A NOSM PILOT



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# DISCLOSURE

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# Improving Health Through Medical Nutrition Knowledge

- Diet is the #1 risk factor for chronic diseases; costs Ontario \$90 billion annually<sup>1</sup>
- Metabolic syndrome, diabetes, cardiovascular disease, hypertension and obesity highly linked to diet and lifestyle<sup>2</sup>
- Medical school graduates lack nutrition competence and confidence<sup>3-6</sup>
- Minimal education on basic nutrition/nutrition interventions in medical school<sup>3,4</sup>
- Canadian medical students including NOSM dissatisfied; want more nutrition education<sup>5,7,8</sup>



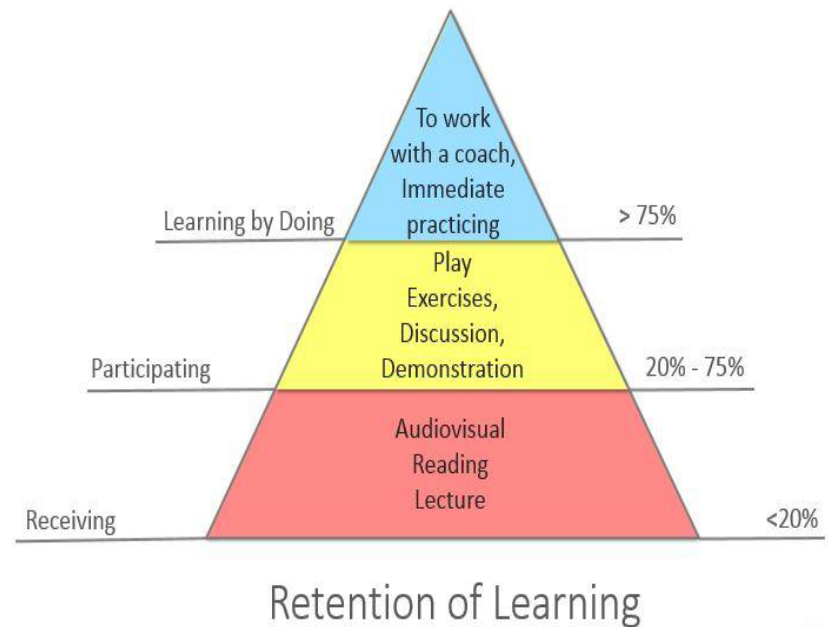
# Nutrition and Lifestyle Curriculum

- Nutrition curriculum guidelines for medical schools including Canada are promising<sup>9</sup>
- Successfully implemented programs in most Canadian medical schools
- NOSM UME curriculum limited
  - 2 formal sessions
  - Academic Week workshops
  - Clinical nutrition lunch & learns
- Culinary medicine blends the art of food and cooking with the science of medicine<sup>10</sup>



# Culinary Medicine Lab (CML) Model

- NOSM First Year UME Focus Groups (2016-17)<sup>7</sup>
- Experiential learning theory<sup>11</sup>
- Teaching Kitchens
- <http://www.tkcollaborative.org/>
- CanMEDS roles<sup>12</sup>
  - Physician wellness/self-care
- NOSM Academic Principles<sup>13</sup>
  - Interprofessionalism



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# Who and Why

- **CML 101: Fad Diets** (n=13)
  - UME Y1 (n=3), Y2 (n=6\*), Y4 (n=4)
- **CML 102: Weight Stigma** (n=11)
  - UME Y1 (n=8), Y2 (n=2\*), 1 MD Faculty
- **CML 103: Nutrition and the Art of Eating, Sudbury** (n=8)
  - UME Y1 (n=1), Y2 (n=6\*), 1 MD Faculty
- **CML 103: Nutrition and the Art of Eating, Thunder Bay** (n=4)
  - UME Y1 (n=3\*\*), Y2 (n=1\*\*)

\* NODIP Graduate and RD

\*\* Undergraduate nutrition degree (n=2)



# Evaluation/Feedback

- Learning Objectives (pre and post)
  - To appraise dietary patterns to determine whether they promote the diet mentality or flexible, individualized eating (CML 101)
  - To compare and contrast weight-focused versus weight-neutral approaches to care (CML102)
  - Understand how food can help prevent chronic conditions like type 2 diabetes and heart disease (CML103)
- Organization/registration/communication
- Presenter knowledge and skills
- Teaching methods
- Enhanced nutrition knowledge
- Enhanced knowledge re: RD role

Culinary Medicine Lab 103: Evaluation Summary, March 28, 2018

Please rate your ability to meet the learning objectives BEFORE the session:

| Learning Objective   | Terrible | Poor | Average | Good | Excellent |
|--|----------|------|---------|------|-----------|
| Understand how food can help prevent chronic conditions like type 2 diabetes and heart disease |          |      |         |      |           |
| Describe a basic healthy diet for disease prevention   |          |      |         |      |           |
| Describe the benefits of bringing families and friends together with food                      |          |      |         |      |           |
| Identify barriers to adopting healthy eating behaviours  |          |      |         |      |           |

\* One UME Year 2 learner is a NODIP grad and RD

Please rate your ability to meet the learning objectives AFTER the session:

| Learning Objective   | Terrible | Poor | Average | Good | Excellent |
|--|----------|------|---------|------|-----------|
| Understand how food can help prevent chronic conditions like type 2 diabetes and heart disease |          |      |         |      |           |
| Describe a basic healthy diet for disease prevention   |          |      |         |      |           |
| Describe the benefits of bringing families and friends together with food                      |          |      |         |      |           |
| Identify barriers to adopting healthy eating behaviours  |          |      |         |      |           |

Identify two things you will change or implement as a result of today's workshop:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

If you do not plan to make any changes, please indicate your reason (Check (✓) all that apply):

Content was not relevant to me

Changes would cost too much / are not practical

Content confirmed my current practice and approach to healthy eating

Need additional resources, information, skills, and/or education (please specify):

\_\_\_\_\_

Other:

\_\_\_\_\_

\_\_\_\_\_



# Overall Results

- Increased nutrition knowledge and competence as future physicians<sup>14-17</sup>
  - CML 101 (Diet Mentality): pre-92% poor-average; post-100% good-excellent
- Improved personal health behaviours and perspectives<sup>14-16</sup>
  - “make more of an effort to recognize my weight bias”
  - “ask about the environment people eat in”
  - “work on improving mindfulness during eating”
  - “try to eat with family and friends more often”
- Enhanced knowledge of role of RD
- 100% satisfaction
  - Offer more sessions next year
  - “tell physicians, not only the students”

# Challenges

- Equipment for future sessions
- Dedicated and convenient space?
  - Learners Centre at HSN?
- Resources-human, financial, etc.
- Scheduling
  - “hold monthly”
  - “on light teaching days”
  - “earlier in the day”
- Integration vs adding to curriculum
  - “make it part of the curriculum”
  - “not try to fit it in”
- Clinical relevance
  - “celiac disease CML during GI module”
  - “diabetes CML during CBM 106”
  - NOSM RD faculty and Theme Committees, etc.



# 2018-19 Activities

- Ongoing pilot
  - 12 CMLs (6 in Sudbury and 6 in Thunder Bay)
  - Timing and content aligns with UME CBMs for Year 1
- Evaluation of students' nutrition knowledge, attitudes, practices and counselling confidence
  - Pre and post-test with adapted survey<sup>18</sup>
  - Ethics waiver extension-both LU REBs
- NODIP Intern Project
  - Evidence-based CML curriculum template for Phase 1, Year 1 UME
- NOSM Advancement for permanent funding and space

# Conclusions

- Pilot gaining attention and interest  
(<https://www.nosm.ca/wp-content/uploads/2018/07/Northern-Passages-Summer2018-web.pdf>)
- Needs formal integration, funding and coordination
- Ongoing advocacy and impact evaluation
- Fosters healthy lifestyle habits translated into physician practice<sup>19, 20</sup>
- Increase patient awareness of nutrition and healthy eating<sup>19,20</sup>
- Address burden of nutrition-related chronic diseases<sup>1,2</sup>



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