

# NUTRI NEWS

The Department of Nutrition

August 2019

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## DOCTORAL STUDENT AVIVA MUSICUS RESEARCHES FOOD ACCESS IN GREENLAND

(By Aviva Musicus, Doctoral Candidate, Department of Nutrition)

**Aviva Musicus**, a fifth-year doctoral student, recently spent two weeks in Greenland researching food access in the Arctic as an Adventure Canada Young Explorer.



**NN:** *Aviva, what brought you to Greenland this summer and how did you become involved in this program?*

**AV:** The Adventure Canada Young Explorers Program is designed to encourage scientists, filmmakers, storytellers, and artists ages 20–30 to experience the Arctic and conduct research aligning with their interests. Adventure Canada is a family-owned and operated tour company that operates small expeditions to the arctic. They run the program in partnership with the Explorers Club, which promotes the scientific exploration of land, sea, air, and space by supporting research and education in the physical, natural and biological sciences.

After submitting a written application and going through a series of interviews, I was selected as one of four Young Explorers to travel to Greenland to conduct research. I was joined by two documentary

filmmakers and a geologist; my research focused on food access. During the last two weeks of July, we traveled by ship from Reykjavik, Iceland to Kangerlussuaq, Greenland.

***NN: Why did you decide to apply to this program?***

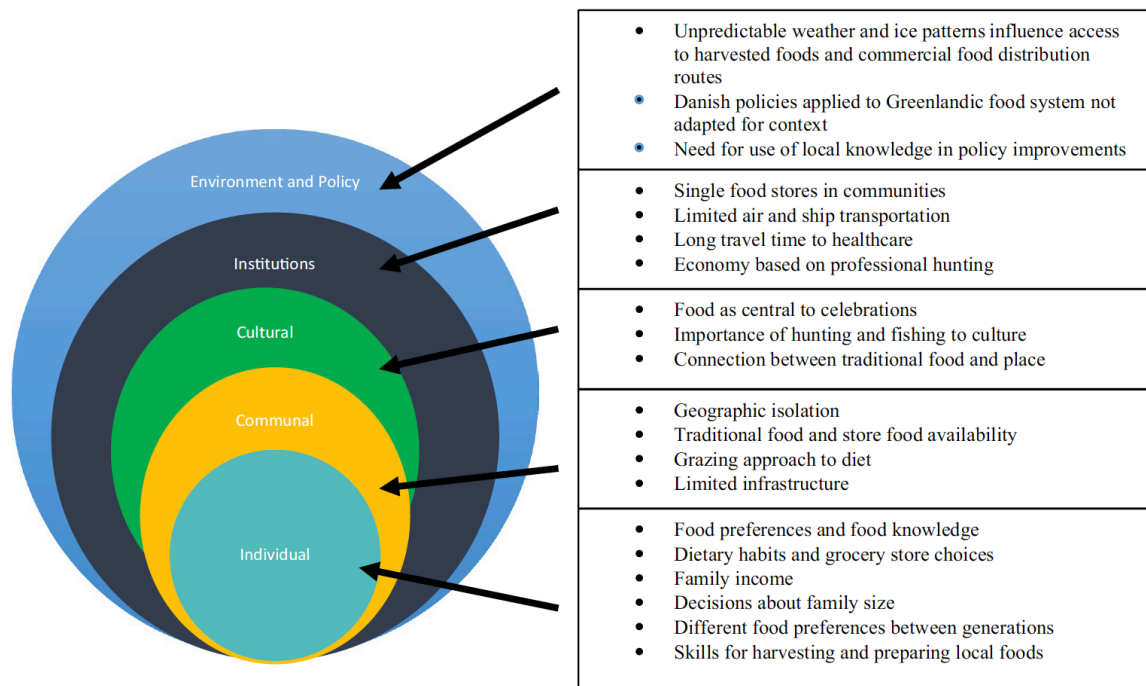
**AM:** I was driven to apply because Greenland offers a unique opportunity to study the interaction between climate change, the physical food environment, and population health. I also love outdoor adventuring (I used to work as a backpacking guide in Washington State's Olympic National Park), especially when it involves mountains covered in snow and ice. I've always dreamed of exploring Greenland, so I was absolutely thrilled at this opportunity.



***NN: Can you tell us a little about Greenland and your research there?***

**AV:** Greenland is a semi-autonomous country under Denmark. Over 80% of its land is covered by an ice cap, which is rapidly melting due to climate change. Greenland's total population consists of just under 58,000 people, and almost 90% of those people are Greenlandic Inuit. Towns in Greenland are not connected via roads; the only way to travel between them is to fly or take a ship. Travel by ship is often impossible in the winter due to sea ice, especially in the northern region of the country.

Greenland is currently in the midst of a nutrition transition, shifting from a traditional diet of fish, seal, and whale to one largely comprised of western foods, including sugary beverages and frozen pizza. Accompanying this shift has been an increase in rates of diet-related chronic diseases across the country, such as obesity and type 2 diabetes. Greenland's Board of Nutrition released dietary guidelines with ten basic recommendations (e.g., "eat fruit and vegetables daily") followed by more specific advice (e.g., "Bring a piece of fruit or vegetable to your place of work or school"). Although much research has been published documenting the dietary patterns of people in Greenland, there is a dearth of data on environmental barriers people may face in following dietary recommendations and making healthier choices, such as high costs of fruits and vegetables or lack of access to grocery stores. The socio-ecological framework below describes many factors impacting food availability and diet in Greenland.



**Fig. 2** This conceptual model describes factors that impact food availability and diet in Greenland during research conducted in April 2016. It is based on a socio-ecologic framework (Sallis, Owen and Fisher 2008)

Source: Watson, Z. A., Shanks, C. B., Miles, M. P., & Rink, E. (2018). The grocery store food environment in Northern Greenland and its implications for the health of reproductive age women. *Journal of community health*, 43(1), 175-185.

**Dr. Katie Cueva** (a wonderful graduate of our department) kindly connected me with a number of researchers studying food access in Greenland, and they all emphasized the need to better understand the food environment in supermarkets in different regions around the country, and at different times of the year. (The food environment encompasses the physical, social, economic, cultural, and political factors that impact the accessibility, availability, and quality of food within a community or region.) For my project, I systematically documented the food environment in grocery stores in every town in which we disembarked using a tool called the Nutrition Environment Measures Survey in Stores (NEMS-S). This tool was developed by U.S. researchers to assess the nutrition environment within retail stores, including the availability and promotion of healthier options, prices, and quality. It has already been used in northern Greenland communities in the winter, so my results from southern communities in the summer will provide an interesting comparison.

Within Greenland, the results of this research could reveal inequities in food access and challenges to adhering to a healthy diet, which could in turn inform future community interventions and policy efforts. On a global scale, results could be used to compare Greenland's food environment with that of other Inuit and Nordic communities to identify disparities, opportunities for improvement, and potential interventions that may work well based on similarities with other food environments.

**NN:** Do you have any research findings yet that you can share with us?

**AM:** I haven't finishing analyzing my data yet, but the general takeaway is that southern Greenlandic communities in the summer have good access to healthy options in their grocery stores. Although relatively expensive, the produce aisles were very well-stocked, and some stores I visited even carried dragon fruit! Despite this, unhealthy options also took up significant shelf space—frozen pizza, instant noodles (e.g., ramen), sugary gummy candies, and energy drinks were especially popular.





**NN:** *What other things did you do on this project?*

**AV:** I was technically a staff member on the ship, which had 140 paying guests. I attended daily staff meetings, helped with anything that needed to be done on the ship (e.g., organize gear) or on land (e.g., help guide hikes), gave talks about nutrition and food access in Greenland, and hosted a food/nutrition table during meals so that interested passengers could ask me all of their nutrition questions. At the end of every meal I directed everyone to visit the Nutrition Source's website.

Some of the ship's staff members were from Greenland, so I had the opportunity to learn more about their culture and individual experiences with food access. They also gave me Greenlandic language lessons! I additionally befriended the kitchen crew on the ship, and they let me carve a watermelon as a dinner centerpiece.



**NN:** *How are you going to apply your research findings?*

**AM:** Once I analyze my findings, I'm planning on writing up a report and sharing it with my Greenlandic research contacts and members of the Greenland Board of Nutrition, with whom I've been in touch—I was actually able to collect data for them during my supermarket visits. I will also be presenting my work at



the Explorers Club in New York City later in the year. I hope to return to the Arctic in the future to work more in this area!



All photos courtesy of Aviva Musicus.

## New Faculty Appointments

**Sjurdur F. Olsen MD, DMSci, PhD**, has been reappointed as Adjunct Professor of Nutrition. Dr Olsen possessed the foresight to develop a massive cohort of approximately 100,000 women while they were pregnant to study the effects of diet during pregnancy in relation to pregnancy outcomes and health issues in the offspring. This includes the collection of blood samples twice during pregnancy. Investigators in the U.S. made several attempts to develop such a resource, but these efforts collapsed and failed completely, so that Dr Olsen now has by far the world's best resource for investigating the effects of diet during this critical period. Many important findings have already come from this resource, such as a stunningly strong inverse relation between blood levels of omega-3 fatty acids and birth weight. Dr Olsen has allowed our students to use his dataset for their thesis work and our faculty members to write grants using this resource. He visits here regularly to teach and develop joint research projects.

**Dr Josiemer Mattei** has been named the *Donald and Sue Pritzker Associate Professor of Nutrition*. This endowed professorship is awarded to an outstanding junior faculty member involved in teaching and research that relates to the understanding or prevention of obesity, overweight, "metabolic syndrome," or related areas of inquiry. Dr Mattei investigates the genetic, dietary, and psychosocial risk factors of cardiometabolic diseases and allostatic load in racial and ethnic groups as well as underserved and minority populations, as a framework to explain health disparities. Her emphasis is on Hispanics/Latinos in the U.S. and Latin America. Dr Mattei's multiple projects include longitudinal cohort studies in Puerto Rico, mixed-methods projects on diet, stress, and weight stigma, collaborations with epidemiological cohorts of Hispanics/Latinos in the United States, and culturally-tailored dietary interventions to prevent type 2 diabetes and heart disease in Boston and Puerto Rico. Her work extends to several Latin American countries through collaborative partnerships. She promotes evidence-based policy and programs for chronic disease prevention in Puerto Rico and US-Latino communities. Dr Mattei's ultimate goal is to help Latinos and other ethnic and underserved populations eat healthy and be healthy.

# NEWS FROM AROUND THE NUTRITION DEPARTMENT

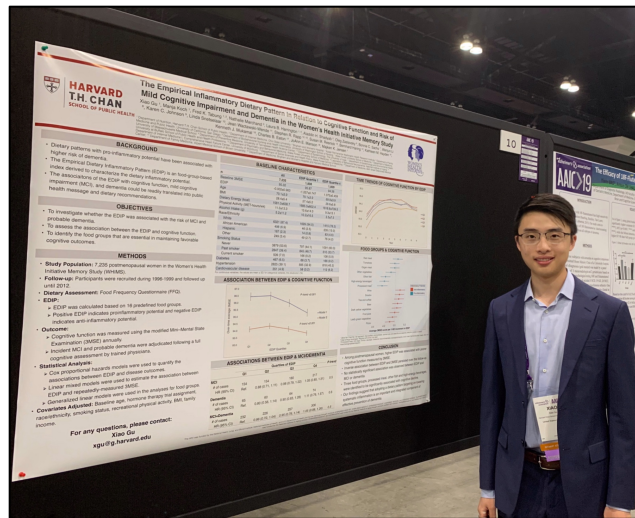
## AWARDS AND HONORS

**Dr Lilian Cheung** has been selected as a recipient of the **2019 Alumni Award of Merit** that will be awarded during the Alumni Weekend activities on Friday-Saturday, October 4-5, 2019. The Award of Merit is the highest honor bestowed on alumni of the Harvard T.H. Chan School of Public Health by their peers. Dr Cheung is Lecturer and Director of Health Promotion & Communication at the Harvard School of Public Health's Department of Nutrition. She is also the Editorial Director of *The Nutrition Source*, Harvard School of Public Health's nutrition website for health professionals, media and consumers. In addition, Dr Cheung also serves as co-editorial director of the *Obesity Prevention Source*, a website providing science based information for policy changes at the community level, as well as the *Asian Diabetes Prevention Initiative*, a website providing research-based evidence for policy makers and public with the goal of reversing the spread of type 2 diabetes in Asia. Her work focuses on the translation of science-based recommendations into public health communications and programs, to promote healthy lifestyles for chronic disease prevention and control. Dr Cheung is the co-Principal Investigator and co-author of *Eat Well & Keep Moving* (2001, 2<sup>nd</sup> edition 2007, 3<sup>rd</sup> edition planned for 2015), a globally disseminated school-based nutrition and physical activity program for upper elementary school children. She is also a Co-Investigator at the CDC Harvard Prevention Research Center on Nutrition and Physical Activity. Her latest book *Savor: Mindful Eating, Mindful Life* (2010, 2011) co-authored with Zen master, Thich Nhat Hanh, has been acquired for translation in 17 countries.

**Nina Sayles**, an incoming MPH65 Nutrition student, was awarded the 2019 James Beard Foundation National Scholars Program North East Award, a one-time award of \$20,000. Nina will be a student this fall in the joint MPH-MUP program between the Harvard Chan School and the Graduate School of Design. She will take courses at GSD this year and then attend Harvard Chan for her second year in the program. The National Scholar Program awards scholarships to students who "demonstrate the potential for leadership roles in culinary arts, food studies, agriculture, hospitality management, and related fields." The Program, which launched in 2016, provides ten high-impact scholarships of \$20,000 each to food-focused candidates of exceptional talent. Candidates for the ten National Scholarships are selected according to academic merit, as well as personal and professional recommendations. To ensure regional diversity of this national program, one awardee will be selected from each of the ten geographic regions defined by the James Beard Foundation Awards.

**Brett Otis**, *Nutrition Communications-Coordinator Strategist*, was nominated for the 2019 Summer ACE Award. The ACE Award acknowledges Harvard Chan School staff (individual or a team of 3-5) who have made extraordinary efforts in our workplace. In addition to their regular responsibilities, they have accomplished something special or exemplified an extraordinary commitment to the School's mission. The ACE Award is also an opportunity to acknowledge managers who lead by example, effectively develop and recognize staff and foster a collaborative environment.

**Xiao Gu**, Doctoral Student in Nutritional Epidemiology, presented his research at the Alzheimer's Association International Conference 2019, in Los Angeles, California on July 14-18. Under the guidance of **Dr Majken Jensen**, Xiao found that a diet with higher inflammatory potential was associated with poorer cognitive function among postmenopausal women in the Women's Health Initiative Study. He also identified processed meat, fried fish, and sugar-sweetened beverages as being significantly associated with cognitive decline. Xiao received a travel fellowship for the conference and his poster was selected as a finalist in the student poster competition.



**Frank Hu**, Fredrick J. Stare Professor of Nutrition and Epidemiology and Chair of Department of Nutrition will become chair of the National Institutes of Health (NIH) Kidney, Nutrition, Obesity and Diabetes (KNOD) study section for a 2-year term (2019-2021). The KNOD study section reviews applications on the epidemiology and genetic epidemiology of kidney, diabetes, obesity, urinary, gastrointestinal and liver diseases in human populations. The focus of interest can include molecular, genetic, epigenetic, pharmacologic, behavioral, environmental, microbiome, diet/nutrition, and physical activity.

## MONDAY NUTRITION SEMINARS

The Department of Nutrition holds its weekly **Monday Nutrition Seminar Series** every Monday throughout the academic year. The talks are varied, but they highlight the many different aspects of cutting-edge research that is currently being conducted in the fields of nutrition and global public health. These seminars are held from **1:00-1:20 pm in Kresge 502** at the Harvard T.H. Chan School of Public Health. The seminars are free and open to the public.

**The following speakers will present their work in September:**

- Sept 9:** **TBD** (NGHP)
- Sept 16:** **Dr David Eisenberg**, Director, Culinary Nutrition and Adjunct Associate Professor of Nutrition; and **Dr Jennifer Massa**, Research Scientist, Department of Nutrition – TBD.
- Sept 23:** **Dr Jun Li**, Research Associate, Department of Nutrition – TBD.
- Sept 30:** **Dr Steve Gortmaker**, Professor of the Practice of Health Sociology, Department of Social & Behavioral Sciences, HSPH. **"Cost-Effective Strategies to Prevent Childhood Obesity."**

For more information, contact: [hfarmer@hsph.harvard.edu](mailto:hfarmer@hsph.harvard.edu)



## New Faces in the Department!



**Dr Hongmei Zeng**  
**Visiting Scientist**

**Dr Hongmei Zeng** began her new appointment as a visiting scientist in the Department of Nutrition in July 2019. She is hosted by **Professor Edward Giovannucci** and **Assistant Professor Mingyang Song**. Hongmei is an Associate Professor at the National Central Cancer Registry of China, National Cancer Center/Cancer Hospital, Chinese Academy of Medical Sciences & Peking Medical Union College. She received her PhD from Peking University in China in 2011, then studied at Yale University in 2009-10, where she majored in epidemiology and biostatistics. Dr Zeng has published more than 100 articles on cancer epidemiology, which have been cited more than 3000 times by researchers and the mass media.

Among her publications, her recent manuscript in *Lancet Global Health* titled "Changing cancer survival in China during 2003-15: a pooled analysis of 17 population-based cancer registries" provides the most comprehensive and up-to-date assessment of the prognosis of cancer survival in China over time. Studies conducted by her research team have provided a benchmark for a series of Chinese health plans such as "*Healthy China 2030 Blueprint*". Of note, Dr Zeng was named "*The Best Young Investigator*" by the *Lancet* in 2015.

During her stay in Harvard, Dr Zeng will conduct cancer research on prevention and control based on the prospective cohort databases of the Nurses' Health Study and Health Professionals Follow-up Study under the guidance of Drs Giovannucci and Song. She aims to explore some modifiable prognostic factors such as nutrition and physical activity and their effects on colorectal cancer patients.

**Isabel Berzansky**  
**Research Assistant**

Hi everyone! My name is Isa Berzansky and I am a research assistant working with **Dr Eric Rimm**, Professor of Epidemiology and Nutrition, and **Michele Sinunu** to help manage and transfer samples to the new, negative 80, high-capacity BIOS freezer. I grew up in Newburyport, MA near Plum Island beach and attended Colby College in Waterville, ME. In college I studied Biology and Environmental Science with a concentration in public health.

I love hiking, especially in the White Mountains, running with friends, traveling, and reading. I am excited to be working here and look forward to meeting wonderful, new people.



## MORE NUTRITION NEWS

### Ask the Expert: Popular plant-based meat alternatives

Plant-based alternatives to animal-based foods are not a new phenomenon. Tofu, for example, has often been treated as an alternative to meat for centuries. In more recent decades, food companies have processed mixtures of soy and other legumes, grains, and a variety of plants into burgers, nuggets, sausages, and other meat-shaped products. These creations were often targeted towards a vegan or vegetarian demographic, and despite their appearance, were not necessarily intended to completely recreate the taste of their meat-based counterparts.

However, a new generation of plant-based meat alternatives is aiming to do just that. In a recent *JAMA* Viewpoint, **Dr. Frank Hu**, Chair of the Department of Nutrition, and co-authors including **Gina McCarthy**, Director of C-CHANGE at the Harvard Chan School of Public Health, discuss how popular products like Impossible Foods' and Beyond Meat's burger patties are aimed to appeal to a broader consumer base with their "unique mimicry" of beef in both taste and experience. They also note how these products are often marketed as a way to "help reduce reliance on industrial meat production," aligned with recent reports calling for dietary patterns higher in plant-based foods for both human and planetary health.

Can these novel products be considered part of a healthy and sustainable diet? According to the Viewpoint authors, the answer to this question "remains far from clear given the lack of rigorously designed, independently funded studies."

**To read the Q&A with Dr. Frank Hu please visit the Nutrition Source website at:**

<https://www.hsph.harvard.edu/nutritionsource/2019/08/26/questions-plant-based-meat-alternatives/>

**To view the JAMA publication please visit:**

<https://jamanetwork.com/journals/jama/fullarticle/2749260>

**From:** <https://www.hsph.harvard.edu/nutritionsource/2019/08/26/questions-plant-based-meat-alternatives/>

### Be careful of added sugars in kids' diets

Because of the omnipresence of sugar in packaged foods and drinks, children today consume far more sugar than the recommended daily limit according to many experts.

**Dr Juliana Cohen**, Adjunct Assistant Professor of Nutrition, suggests in an August 1, 2019 article in *Time* that kids are born with an innate preference for sweet foods. This gradually fades with age. This could have contained an evolutionary advantage as sweet foods are likely to be safer than bitter foods, which are often toxic. According to Cohen, "Sugar in small doses is okay, but with the portion sizes most people are used to today, we've lost perspective on moderation."

Cohen's research has also shown that exposure to too much sugar at a young age may impair learning and memory formation. Other health consequences of an excessively sugary diet include increased risk for obesity, heart disease, and type 2 diabetes.

**From:** [https://www.hsph.harvard.edu/news/hsph-in-the-news/added-sugar-children-health/?utm\\_medium=email&utm\\_campaign=kiosk\\_08\\_08\\_2019&utm\\_source=newsletter](https://www.hsph.harvard.edu/news/hsph-in-the-news/added-sugar-children-health/?utm_medium=email&utm_campaign=kiosk_08_08_2019&utm_source=newsletter)

**Read Time article:** [Is Sugar as Bad for Kids as It Is for Adults?](#)

**Learn more**

[A call to action on limiting kids' sugary beverage consumption](#) (Harvard Chan School news)

[Swapping sweeteners in drinks may help some reduce disease risk—but water is better](#) (Harvard Chan School news)

## What is EVERGREEN: The EVidEnce-based Research GRoup to EvaluatE Nutrition policy?

EVERGREEN: The EVidEnce-based Research GRoup to EvaluatE Nutrition policy is a team of faculty, researchers, and students at the Harvard T.H. Chan School of Public Health that are committed to improving population health through research and evaluation of U.S. nutrition policies and programs. Led by **Dr. Eric Rimm**, in the Departments of Nutrition and Epidemiology, and **Dr. Sara Bleich**, in the Department of Health Policy and Management, this interdisciplinary research group investigates a wide variety of policy-relevant nutrition topics in the public and private sectors, such as the impact of financial incentives on the diets of SNAP participants, the effects of the Philadelphia beverage tax on prices and pass-through charges, the influence of food industry marketing programs such as Box Tops on consumer choice for families, and the impact of supermarket choice architecture, such as promotions and product placement, on food purchases, among many other projects.

### Interested in our group?

- Check out our website: <https://sites.sph.harvard.edu/evergreen/>
- Read our newsletter: <https://mailchi.mp/7c35d077c445/newest-updates-from-evergreen-520417>



# Save-the-Date!

## 50th Anniversary of the White House Conference on Food, Nutrition, and Health

10/3/19 and 10/4/19

Use the link below to sign-up for the event's mailing list and more information

<https://sites.tufts.edu/foodnutritionandhealth2019/>

Mark your calendar for a historic nutrition policy event hosted by The Friedman School of Nutrition Science and Policy and the Department of Nutrition at the Harvard T.H. Chan School of Public Health.

### Agenda

#### 50th Anniversary of the White House Conference on Food, Nutrition, and Health Conference

#### Harvard T.H. Chan School of Public Health

10.3.19

#### **4:00-6:30: Opening Remarks and Keynote Speaker and Panel Discussion (Kresge Cafeteria)**

- 4:00-4:10pm: Opening remarks from Dean Michelle Williams
- 4:10-4:20 Overview of the White House Conference on Nutrition, Dr. Frank Hu, Dr. Dariush Mozaffarian
- 4:20-5:20: Keynote by Dr. Cathie Woteki: *The Lasting Influence of the White House Conference on Food, Nutrition and Health*
- 5:20-6:30: Panel: 2020-2025 Dietary Guidelines for Americans: What is at Stake? (50 mins) and Q+A (20 mins)

- Moderated by Dr. Frank Hu and includes Drs. Alice Lichtenstein, Elsie Taveras, Walter Willett, Cathie Woteki, and Timothy Griffin

#### **6:30-7:00: Reception with light refreshments (Kresge Cafeteria)**

On Friday, 10/4/19 there will be a full day event with panel discussions and speakers at The Friedman School of Nutrition Science and Policy.

*More details will follow.*

**15<sup>th</sup> Annual Stare-Hegsted Lecture**  
Department of Nutrition

**Dietary Guidelines and  
Sustainability: Politics,  
Policies, and Practice**

**Miriam E. Nelson, Ph.D.**

Miriam E. Nelson, Ph.D., is professor emerita at the Friedman School of Nutrition Science and Policy at Tufts University. Most recently, she was president of Hampshire College and before that the director of the Sustainability Institute at the University of New Hampshire. At the Friedman School she was the founding director of the John Hancock Research Center on Physical Activity and Obesity Prevention. Dr. Nelson also served on the 2010 and 2015 Dietary Guidelines Advisory Committees.



**Thursday, November 14, 2019**

**4:00-5:30 p.m.**

**Location TBD**



# A Harvard MPH In Nutrition

**Acquire skills in nutrition practice, policy, and communication along with foundational knowledge in nutritional science, epidemiology, and public health.**

***This 65-credit program is 1.5 years (3 semesters) in length, beginning in September and ending in December of the following year. The summer session features a unique practicum experience allowing students to create a project with real-world application.***



Earn a Master of Public Health (MPH) degree that explores the role nutrition plays in the health and well-being of the world's populations from a variety of vantage points, including environmental, socioeconomic, political, and cultural factors.

Core courses emphasize methodological strategies to develop, analyze, and evaluate interventions, programs, and policies typically used in public health nutrition. Students may also choose from a variety of electives tailored to personal career goals and interests such as nutrition policy, health disparities, nutrition epidemiology, global health, social and behavioral sciences, and environmental sustainability.

## **Who should apply?**

The program is suitable for those both early or established in their careers, who wish to develop or further their expertise in nutrition. Prospective students will need to meet the following:

- A bachelor's degree from an accredited institution.
- At least two years of post-baccalaureate work

For more information about application requirements or other program details, contact Stefanie Dean, Academic Coordinator: