

# **NUTRI NEWS**

# The Department of Nutrition

**July 2019** 

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# RESEARCH ASSISTANT WILL KOH EXAMINES HOW HEALTH OF CORAL REEFS IMPACTS HUMAN NUTRITIONAL HEALTH IN MICRONESIA!

**Will Koh**, Research Assistant, has just returned to the Nutrition Department after working for several months on a small island in Micronesia for **Professor Chris Golden's** coral reef and human nutrition project. *NutriNews* interviews Will as he reflects on his experiences there.

(Interviewed by Hilary Farmer, NN Editor.)



NN: Will, I understand that you have been living in Tarawa, Kiribati, a Micronesian island nation in the Central Pacific Ocean, since April 22<sup>nd</sup> of this year. Can you tell us a little about what you were doing there?

**WK:** From April 22 – June 17, I lived in Tarawa: a coral atoll that is the capital of Kiribati (pronounced "Kiribas"), a small Micronesian island nation in the Central Pacific Ocean. Kiribati comprises 33 different far-flung islands roughly situated between Fiji and Hawaii. I worked as a research assistant and project coordinator for **Dr Chris Golden's** (Assistant Professor of Nutrition & Planetary Health) NSF-funded research project examining how the health of coral reefs relates to the health of the human inhabitants of Kiribati, the I-Kiribati. To measure the interaction between reefs and human communities, the project is looking closely at seafood and includes multiple teams collecting data on marine biodiversity, market access, fisheries management, diet and nutrition. Additionally, the research operates in tandem with an ongoing nation-wide socio-economic survey called the Household Income and Expenditure Survey (HIES). The HIES examines income/expenditure patterns from which strategies can be identified to improve living conditions and guide future development. The results of these tandem investigations will be an extremely comprehensive data collection that considers the role of available seafood in Kiribati from public health, environmental, and economic angles. More broadly, the study is a real-time examination of the impact of anthropogenic environmental change on diet and nutrition.



NN: Now, you worked as part of a health team that is collecting data on the diet and nutritional status of the I-Kiribati, right? Can you describe some of the things that your health team did?

**WK:** The health team consists of five I-Kiribati nurses who travel to households, along with the HIES squad, to survey residents about dietary behavior and perform a variety of tests to measure their nutritional health. My role was to train and manage this incredible team through the early stages of the project. The nurses collect blood samples for point-of-care testing devices that measure hemoglobin (to help diagnose anemia), hemoglobin A1C (measure for diabetes), cholesterol, and blood glucose. We are also collecting larger volume blood and fingernail samples to later analyze fatty acid profiles, mercury levels, and genomic data. So far, we have surveyed more than a hundred households with sometimes close to twenty residents in each. Additionally, the

nurses educate residents about nutrition, what their test results mean, and how people can make positive behavioral changes to address their own particular nutritional health problems.

It has been very inspiring to work with these local nurses: Tebi, Baurina, Tebano, Tirite, and Nantebwebwe. They have met the challenge of learning the testing protocols head on and take their roles as public health-givers very seriously. I feel very lucky to have had the opportunity to work with them.



NN: Will, I see that you want to examine how the health of coral reefs relates to human nutritional health? Why is that important?

**WK:** This is a complex question. I'm a novice in the study of oceanography and marine biology, but here's how I understand the impact of reefs on human nutrition:

Corals are living organisms – marine invertebrates – that live in collections of colonies which can become reefs – submerged structures in the ocean. Shallow coral reefs are very special from an ecological perspective because they are highly productive and contain diverse marine ecosystems. A multitude of species –such as fish, mollusks, crustaceans, and worms – thrive in coral reefs and rely on them for spawning, nursery, breeding, and feeding grounds. As the Scripps Institution of Oceanography at UCSD writes, "In terms of biodiversity, the variety of species living on a coral reef is greater than in any other shallow-water marine ecosystems and is one of the most diverse on the planet, yet coral reefs cover less than one tenth of one percent of the ocean floor." Oceans are relatively barren and unproductive in terms of supporting living organisms at tropical latitudes, except for areas in and around shallow coral reefs. In some ways, you can think of coral reefs as isolated oases, rich in life, smack dab in the middle of a vast ocean desert.

Coral islands are formed by coral detritus that is deposited after the erosion and subsidence of dying volcanoes. For the human inhabitants of coral islands, a reef thus provides value – ecosystem services – in a number of ways: supplying food sources, protection from extreme weather events, recreation, and a draw for tourism. Corals are highly sensitive to human disturbance. Ocean warming and acidification due to climate change, overfishing, and pollution are just a few things that pose a threat to the stability and healthy condition of coral reefs today.

The project is primarily interested in that first ecosystem service: food. All the islands of Kiribati are coral islands and without the coral reef, these islands would not exist. A dependence on seafood historically ties the I-Kiribati to their marine environment. As such, if the coral reef is damaged and its capacity to support marine life falls, the islanders are forced to change their dietary behavior in order to fill the protein gap caused by their diminished access to local seafood. This shift in dietary behavior can dramatically affect their nutritional health. This project aims to examine exactly how a changing environment can impact human health by causing changes in food supply and consumption.

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<sup>&</sup>lt;sup>1</sup> https://scripps.ucsd.edu/projects/coralreefsystems/about-coral-reefs/value-of-corals/





NN: Can you give more detail about the traditional I-Kiribati diet? How is it changing?

**WK:** Animal proteins dominate the diet of the I-Kiribati. They eat meat at almost every meal. It would be extremely hard to be a vegetarian in Kiribati. Fish is the most widely consumed protein source by far. They eat pelagic species that come from the deep ocean – like tuna, billfish, barracuda – and reef fish from the lagoon – like snapper, grouper, goatfish, and triggerfish. They also eat a wide variety of other seafoods that are gleaned at low tide such as mantis shrimp, lobster, and seaworms. Many people fish themselves or have a family or community member who is a fisherman. When we would interview household residents about their previous meals, almost everyone responded, "*Te ika e raiti*" which means "Fish and rice." It became such a pattern that I began suggesting this answer when we asked this question and the interviewee would be tickled by my budding fluency in the language!

Outside of seafood, the I-Kiribati eat fresh chicken and pork, but only occasionally: most households keep chickens and a few pigs which are slaughtered for holidays and special events. Increasingly, people are supplementing locally caught fresh fish with imported tinned meats, such as canned corned beef, SPAM, and mackerel in tomato sauce. This project is particularly focused on this dietary shift towards ultraprocessed meats because they are far less nutritious than fresh fish. Young people are developing a taste for these processed and imported terrestrial meat products and their longer-term nutritional health is suffering as a result.

## NN: What is the ultimate goal of Dr Golden's project?

**WK:** Dr. Golden says it best: "We are particularly interested in the evolution of the nutrition transition, and the degree to which it is linked to underlying environmental causes. By working in 30 isolated and independent islands that are relatively culturally homogenous, we have set up a study design to investigate the role of coral reef collapses in leading to an acceleration of the nutrition transition."

## NN: Can you explain what you mean by "nutrition transition"?

**WK:** The nutrition transition refers to a dietary shift in many low- and middle-income countries worldwide that replaces traditional diets with Western dietary patterns that are high in processed meats, refined carbohydrates, and sugar-sweetened foods. This shift has occurred alongside urbanization, population increases, and a globalized economy. The result has been a dramatic rise in obesity and non-communicable disease, along with nutrient deficiencies in countries that previously experienced famine and similar forms of food insecurity.<sup>2</sup> In effect, these populations are experiencing new and evolving forms of malnutrition.

## NN: Have you ever done anything like this before?

**WK:** In college, I did field research on urban agricultural development in the townships of Cape Town, South Africa. Many of the challenges in certain low-resource communities of Cape Town are similar to the struggles in Tarawa. They, too, must contend with a lack of fresh water, waste management issues, and a high disease burden. However, I have never lived anywhere nearly as isolated as this before. Tarawa is 16 hours ahead of Boston and Eastern Standard Time. Because it is an atoll, there is a single main road that runs the length of the southern part of the island that you travel on day after day. In many places, you can see water to the left and right of you dominating the horizon. I keenly felt that I was on a vulnerable and small speck of land in the middle of the Pacific Ocean.



## NN: What have you learned from this experience?

**WK:** I have learned a tremendous amount from this experience and I am still processing much of it.

I was drawn to this role and project because Kiribati is experiencing climate change at an accelerated pace compared to the rest of the world. The highest point in Tarawa is 3 meters above sea level and sea level rise is increasing in such a way that the country will likely be inundated by the ocean within my lifetime. The I-Kiribati are victims of a problem they did not create. They are at the forefront of this global threat yet have contributed so little to the problem in terms of emissions and environmental impact and have very limited power to mitigate the threat. The experience has put much into perspective for me about the reality of a climate-impacted future in which the most vulnerable are most at risk. The learning experience

has strengthened my resolve to support these vulnerable populations in whatever way I can.

Yet amid this looming crisis, the generosity and humor of the I-Kiribati is unparalleled. For people struggling with many converging issues around development and environmental degradation, they are always prepared to share and lean on the strength of their communities and families. I was so taken by how happy and self-assured everyone was, how welcoming they were to me, and how proud they were as a people. The indomitability of their spirit will hopefully stay with me for years to come.

<sup>&</sup>lt;sup>2</sup> Mueller NT. Navigating the Nutrition Transition: What Is It? How Can Whole Grains Play a Helpful Role?. CFW plexus. 2013;2012

NN: Going to a faraway place like Tarawa, Kiribati sounds like quite an adventure! Do you plan to work on similar projects in the future?

**WK:** I have been thrilled by the experience and am very lucky to work with Dr. Golden. I am excited to pursue similar opportunities considering the intersection of planetary health and diet as I become an MPH student in the Nutrition Department this fall.

NN: And Dr Golden has also been happy to have Will as his research assistant! He told me that "Will has been a wonderful leader in launching our research in Kiribati. I am so impressed with his thoughtfulness and cultural respect, and the exponential increase in his knowledge of nutritional issues and navigating fieldwork in the developing world."



## NEWS FROM AROUND THE NUTRITION DEPARTMENT

### **AWARDS AND HONORS**

**Dr Mariel Arvizu**, Postdoctoral Research Fellow, was a joint winner of the inaugural John Garrow Clinical Nutrition Award for 2018 for her paper, "Fat intake during pregnancy and risk of preeclampsia: a prospective cohort study in Denmark". The John Garrow Award is for young professionals and is aimed at recognizing exceptional research outcomes. Mariel recently received her ScD degree in Nutrition Epidemiology from HSPH and has begun a postdoctoral research fellow position in the Nutrition Department with her PhD advisor, **Dr Jorge Chavarro**.

### **GRANTS**

**Dr Sandra Munger**, Research Scientist, has been awarded a grant from the Department of Defense beginning July 1, 2019. She will be PI on this grant titled "A prospective study of serum levels of polyunsaturated fatty acids and effects on multiple sclerosis disease activity and progression".

### **DISSERTATION DEFENSES**

**Isabel Madzorera,** SD candidate, has successfully defended her dissertation titled `The relationship between maternal and child diets & nutritional outcomes in sub-Sahara Africa'.

On August 1 at 12:30 pm *Dr Guy Crosby*, Adjunct Associate Professor of Nutrition, will present an informal talk on "*How the Evolution of Science Transformed the Art of Cooking*". Weather permitting, the talk will be presented in the Countway Courtyard adjacent to the Kresge Building as part of the Longwood 'Outside' speakers' series. Guy's talk is based on his forthcoming book "**Cook, Taste, Learn-How the Evolution of Science Transformed the Art of Cooking**" to be published later this fall by Columbia University Press. All are welcome to attend, with or without your lunch. For more information on the Longwood 'Outside' summer events see: <a href="https://www.longwoodoutside.org">www.longwoodoutside.org</a>.

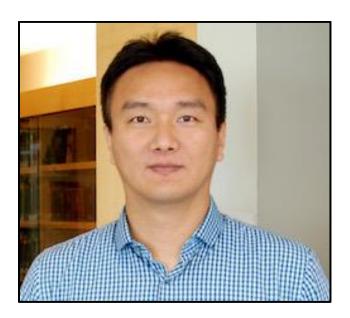
## MONDAY NUTRITION SEMINARS

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.

Our Monday Nutrition Seminar Series for this academic year has ended. Our regular Monday Seminar Series will resume in Fall 2019.

For more information, contact: <a href="mailto:hfarmer@hsph.harvard.edu">hfarmer@hsph.harvard.edu</a>

# Dr Kyu Ha Lee Joins Department as Assistant Professor of Integrative Genomic Epidemiology



**Dr. Kyu Ha Lee** will join the Department of Nutrition in July of 2019 in the role of Assistant Professor of Integrative Genomic Epidemiology. Currently, Dr. Lee is at The Forsyth Institute in the position of Assistant Faculty and Principal Investigator. He received his B.S. in Electrical Engineering from Hongik University in Seoul, Korea and his Ph.D. in Statistics in 2011 from the University of Missouri. He then went on to a postdoc at Harvard Chan working with **Drs. Sebastien Haneuse, Francesca Dominici**, and **Brent Coull**. Dr. Lee's research focus has been on statistical methods development for microbiome studies. One of his research goals is to develop statistical point pattern analysis methods for understanding the spatial organization of microbes by using spectral imaging. Another research goal is to develop comprehensive multivariate methods for microbiome sequencing count data. He has received NIH grants to develop comprehensive multivariate methods for microbiome sequencing count data. Dr. Lee's expertise and experience in microbiome and high-dimensional multivariate data analyses and technical computer programming provide a unique background for nutrition-omics research in our department.

## Where Are They Now?

# Dr Rain Yamamoto, ScD 2016 Department of Nutrition



Rain (second from the left), together with participants of a workshop which her team organized in the Eastern Mediterranean region in June 2019

Since March 2019, **Dr Rain Yamamoto**, a 2016 graduate of the Harvard Chan Nutrition Department, has started a new position as Scientist at the Nutrition Policy and Scientific Advice Unit of the Department of Nutrition for Health and Development at WHO Headquarters in Geneva. Her work includes 1) developing science-based guidelines related to dietary goals and policy options for preventing diet-related NCDs, and 2) providing guidance and support to regions and counties to strengthen healthy diet policies and regulations. One of Rain's main tasks at hand is to help countries achieve the global target of eliminating industrial trans-fat by 2023.

During her time at HSPH, Dr Yamamoto conducted doctoral research under the supervision of **Drs Frank Sacks** and **Majken Jensen**, which was a unique combination of lab work and statistical analyses. She investigated the heterogeneous effects of HDL subspecies based on the presence and absence of a proinflammatory protein called apolipoprotein C-III (apoC-III). Rain contributed by adding evidence to the notion which Dr Sacks' lab has been establishing over the past decade that "not all HDL is created equal": HDL containing apoC-III is associated with harmful cardiometabolic outcomes, whereas HDL lacking apoC-III is associated with beneficial outcomes.

Rain is excited to use her expertise that she acquired through her doctoral training and is looking forward to collaborating with the Harvard Chan Nutrition family in the future.

## New Faces in the Department!



## **Clemens Wittenbecher Research Fellow**

Dear new colleagues, my name is *Clemens Wittenbecher*. I have studied Nutrition at the Martin-Luther-University Halle-Wittenberg and the University of Potsdam, and Epidemiology at the Charité Berlin, all in Germany. Since 2013 I worked at the German Institute of Human Nutrition in the Department of Molecular Epidemiology, chaired by Matthias Schulze, where I also obtained my PhD in 2017. I was then awarded a 2-year fellowship for a research stay here at the Nutrition Department under *Dr Frank Hu's* supervision.

My core research interest is using molecular phenotyping data in combination with dietary intake information to learn about the mechanisms by which the habitual diet is connected to long-term health outcomes. To this end, I employ data-driven network analyses in combination with causal inference methods. From a biological perspective, I am particularly

interested in lipid and amino acid metabolism in relation to cardiometabolic disease incidence. I also have some experience with developing prediction models. Most of my research projects were hitherto based on the EPIC-Potsdam cohort; while I am here I will primarily use the Harvard cohort data (NHS and HPFS). I am very much looking forward to fruitful interactions with all the excellent researchers here at the school!

My wife and I have four kids (1, 4, 10, and 12 years old). Therefore, I spend much of my free time with the kids in parks and at playgrounds. I enjoy playing volleyball, running, and all kind of sports and outside activities. My wife is more into music, and she sings and plays the guitar. So, any tips on the kids-sportsmusic site are also very welcome.

## MORE NUTRITION NEWS

# Following a healthy plant-based diet may lower type 2 diabetes risk

People who follow predominantly plant-based diets with greater adherence may have a lower risk of developing type 2 diabetes than those who follow these diets with lower adherence, according to a new meta-analysis from Harvard T.H. Chan School of Public Health. The researchers also found that the association was stronger for people whose diets emphasized healthy plant-based foods.

"Plant-based dietary patterns are gaining popularity in recent years, so we thought it was crucial to quantify their overall association with diabetes risk, particularly since these diets can vary substantially in terms of their food composition," said first author *Frank Qian*, who conducted the research as a masters student in the Department of Nutrition.

The researchers found that people with the highest adherence to overall predominantly plant-based diets had a 23% lower risk of type 2 diabetes compared to those with weaker adherence to the diets. They also found that the association was strengthened for those who ate healthful plant-based diets.

The study was published online July 22, 2019 in JAMA Internal Medicine.

From: https://www.hsph.harvard.edu/news/press-releases/following-a-healthy-plant-based-diet-may-lower-type-2-diabetes-risk/

# Companies Appeal to Mainstream Consumer by Replicating the Look and Taste of Real Meat



Photo: Burger King

As veganism gains more mainstream acceptance, it seems inevitable that 'meatless meat' would finally become part of menus in fast food joints and trendy restaurants. For example, Burger King has now introduced the Impossible Whopper (a meatless replica of its original Whopper), and White Castle has been selling meatless sliders since last year. Products such as these are also being stocked in many supermarkets now.

Part of the strategy for people to consume more plant-based foods is to get them to give up eating meat without feeling like they're actually giving it up. Two approaches are used to accomplish this: either plant-based or cell-based.

The plant-based 'meat' approach combines high-protein vegetables like soy, peas, beans, potatoes and other vegetables to replicate the taste, texture, and look of meat. For example, the 'blood' in the Beyond Meat burger is beet juice. In the cell-based approach, on the other hand, workers take cells from animals like cows, chicken, or turkeys and grow specific products such as steak, chicken breast, or turkey nuggets in a culture dish. Technically, it's still real meat but producing it does not harm animals. Although the two approaches differ in strategy, the underlying key is to create a product indistinguishable from the original.

Although both approaches show promise in terms of human and planetary health, **Dr Frank Hu**, Professor and Chair of the Nutrition Department, warns that there is a need to keep a watchful eye on these products. According to Hu, 'The current effort to produce more plant-based protein food like the Impossible Burger and some other plant options, I think that is in a good direction. I think it could have potential benefits in improving the health of humans in the world. Of course, the data on the products like the Impossible Burger or other types of [similar] veggie burgers is still very limited. I think it's very important to monitor the trends of the consumption patterns in the population and also monitor the health effects of those products, because some of those products, even though they contain high amounts of plant-based protein, may also contain unhealthy ingredients, such as high amounts of sodium or unhealthy fats. Being plant-based doesn't necessarily mean it's healthier.'

Regarding cell-based meat, Hu said it is too a new phenomenon to have reliable data, so its effects on humans are currently unknown. 'At this point, there is no data whatsoever because it's at such an early

stage, he said. Hu also noted the high production costs of both plant-based meat and clean meat, which currently translate to the consumer but are expected to lower with time.

From: <a href="https://news.harvard.edu/gazette/story/2019/07/harvard-researcher-new-meat-alternatives-mainstream-veganism/?utm\_source=SilverpopMailing&utm\_medium=email&utm\_campaign=Daily%2520Gazette%252020190708%2520%281%29</a>
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## Labeling Menus Is Associated with Fewer Calories at Convenience Stores



Sold at Target

A recent study has described trends in calories among food items sold in U.S. convenience stores and pizza restaurant chains from 2013 to 2017, the period leading up to the implementation of the federal menu labeling mandate. These businesses were chosen in order to assess whether core food items were reformulated during the study period and because they were openly resistant to implementing menu labeling.

The authors also compared calories in food items available for sale on convenience store and pizza restaurant menus to calories in items that were newly added or dropped. They found that leading up to the national menu labeling implementation date, convenience stores showed a significant decreasing trend in median calories of overall menu items and among appetizers and sides. Pizza restaurants introduced lower-calorie pizza options in 2017, but no other significant changes in calories were observed. The authors suggest that going forward, it will be important to track calorie changes in convenience stores and pizza restaurant chains as both food establishments represent significant sources of calories for Americans.

Authors of the study included **Dr Alvin Tran**, a postdoctoral associate at Yale University who conducted the research while he was a doctoral student at Harvard Chan School, **Dr Sara Bleich**, professor of public health policy at Harvard Chan School, and **Dr Alyssa Moran**, a former student in the Nutrition Department who is now an assistant professor at Johns Hopkins Bloomberg School of Public Health.

Tran A, Moran A, Bleich SN. Calorie changes among food items sold in U.S. convenience stores and pizza restaurant chains from 2013 to 2017. Prev Med Reports. Available online 29 June 2019, 100932

*See also:* https://www.hsph.harvard.edu/news/hsph-in-the-news/menu-labeling-associated-with-fewer-calories-at-convenience-stores/

To read the study: Calorie changes among food items sold in U.S. convenience stores and pizza restaurant chains from 2013 to 2017

## Calorie Restriction Easier When Combined with Other Health Strategies

According to a new study led by Duke University, those people who had cut 300 calories a day (12% of their diet) over a two-year time period lost more weight and had better metabolic health than those who didn't restrict their calories. However, the study cautioned that these findings also pointed to the challenges of restricting calories as a long-term health strategy. For example, when dieters were asked to maintain a 25% daily cut in calories, the dropout rate was high.

**Dr Frank Hu**, Fredrick J. Stare Professor of Nutrition and Epidemiology and Chair of the Department of Nutrition, wrote in an accompanying editorial published July 11, 2019 in *The Lancet Diabetes & Endocrinology* "that people might have an easier time sticking to a healthy lifestyle and staying lean if they combine calorie restriction with other strategies like intermittent fasting, a low-carb diet, or the Mediterranean diet".

From: https://www.hsph.harvard.edu/news/hsph-in-the-news/calorie-restriction-healthy-lifestyle/

#### See also:

New York Times coverage: Cutting 300 calories a day shows health benefits

Today coverage: How to lose weight, improve heart health with the calorie-restriction diet

Learn more.

Molecular mechanism behind health benefits of dietary restriction identified (Harvard Chan School release)

## NUTRITION SOURCE UPDATES

## **Superfoods or Superhype?**

There's no scientifically-based or regulated definition of "superfood," so where did the term originate? Some history behind the hype:

https://www.hsph.harvard.edu/nutritionsource/superfoods/

## Make it at home: Walnut Pesto

Have an abundance of summer herbs? Try making this walnut pesto, which features a mix of blanched basil and parsley to lock-in that vibrant green color:

https://www.hsph.harvard.edu/nutritionsource/walnut-pesto/

### Plat Manje ki Bon pou Lasante

The Healthy Eating Plate, now translated into Haitian Creole.

https://www.hsph.harvard.edu/nutritionsource/healthy-eating-plate/translations/haitian-creole/

## **Spotlight on Vitamin K**

Vitamin K helps to make various proteins that are needed for blood clotting and the building of bones. Learn more about Vitamin K and health: http://www.hsph.harvard.edu/nutritionsource/vitamin-k/

If you would like to remain current as to what is happening in the field of nutrition, please be sure to view our Nutrition Source website for the latest updates!

(See: <a href="https://www.hsph.harvard.edu/nutritionsource/">https://www.hsph.harvard.edu/nutritionsource/</a>)

# 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: <a href="https://sites.sph.harvard.edu/evergreen/">https://sites.sph.harvard.edu/evergreen/</a>
- 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/

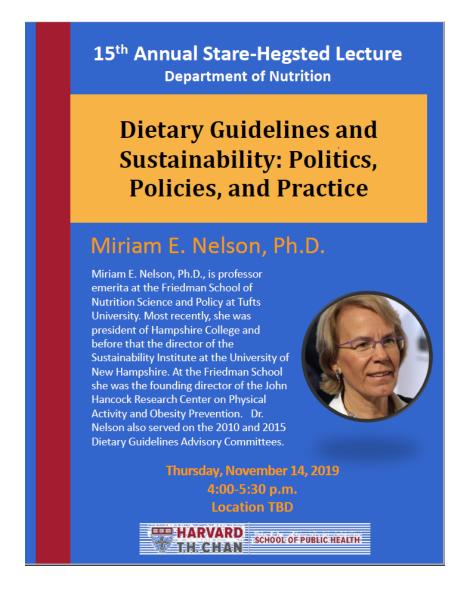
Mark your calendar for a historic nutrition policy event hosted by The Friedman School of Nutrition Science and Policy and the Department of Nutrition at the Harvard T.H. Chan School of Public Health.

Activities will start the afternoon (4:00-6:30 pm) of 10/3/19 with a keynote speaker, panel discussion, and reception hosted by the Department of Nutrition at the Harvard Chan in the Kresge Café.

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.

# MARK YOUR CALENDARS!



# A Harvard 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 postbaccalaureate work

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