

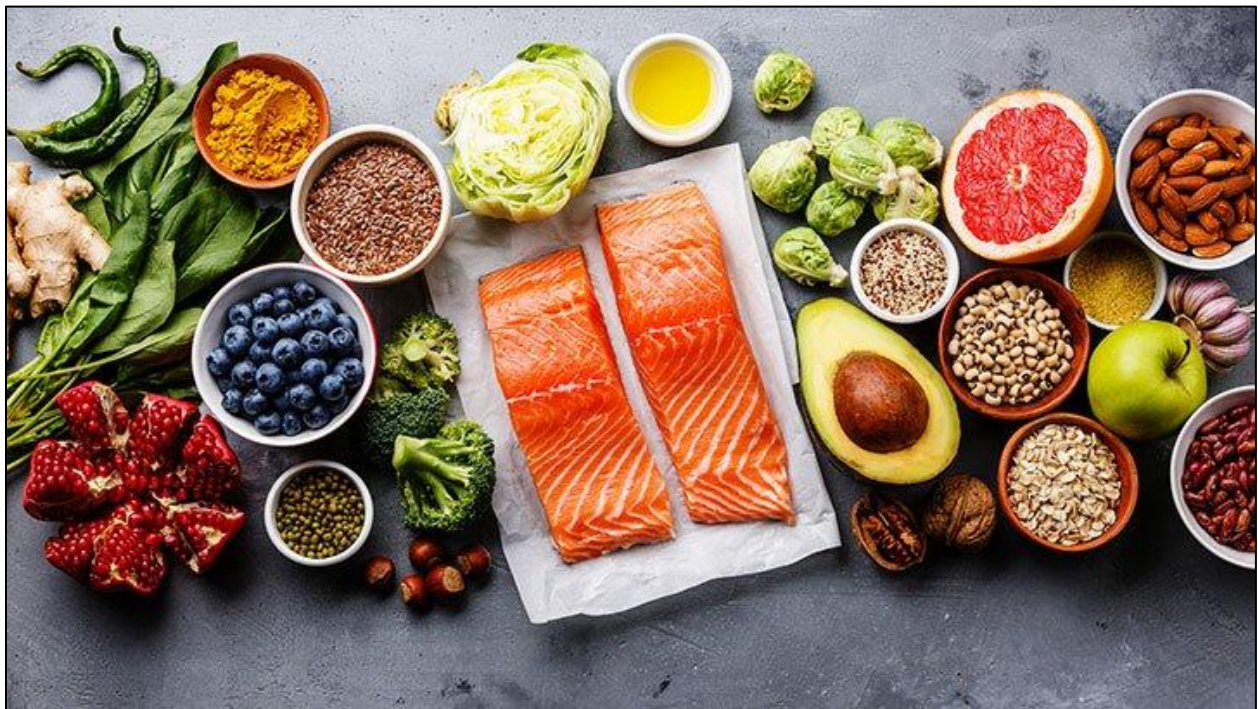
NUTRI NEWS

The Department of Nutrition

January 2019

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Lancet Report Recommends that Food System Be Transformed for Human and Planetary Health



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According to a new report by The *EAT-Lancet* Commission on Healthy Diets from Sustainable Food Systems, co-chaired by **Dr Walter Willett**, Professor of Epidemiology and Nutrition at Harvard T.H. Chan School of Public Health, close to a billion people are going hungry, natural resources are being depleted by over-food production, and almost two billion more people are eating the wrong types of food. Unless these current trends are reversed by a "Great Food Transformation", consequences for human and

planetary health could be dire. This report was published online in *The Lancet* on January 16, 2019 and calls for global cooperation and commitment in shifting diets towards healthy and largely plant-based patterns, implementing significant sustainability improvements in food production practices, and making large reductions in waste and food loss.

"We are presently on a path leading to a seriously degraded planet," co-chair and lead author Willett said. "If we care about the world our children and grandchildren will live in, we need to transform our diets and the way we produce our food. An immediate benefit will be improvements in our health and wellbeing."

Highlights of the EAT-Lancet Commission Report include:

- **Eating more plants, less red meat, and sugar.** However, Willett stresses that the guidelines are not a one-size-fits-all prescription, and that "Diets that are healthy for people and our planet can provide tremendous variety, flavor, and enjoyment," and can include not only vegan and vegetarian diets, but also options for omnivores. He cites the Mediterranean diet as a good example of an omnivore diet.
- **Sustainable food production.** According to the report, dietary changes must also be combined with improved food production and reduced food waste, including refocusing agriculture to produce varied nutrient-rich crops and increasing governance of land and ocean use. These changes must also include safeguarding biodiversity, producing zero carbon dioxide emissions, and causing no further increase in emissions of certain greenhouse gases. For example, methane is produced in the digestion of cows and other livestock and nitrous oxide is emitted from agricultural soils.

The EAT-Lancet Commission is a 3-year project that brings together 37 experts from 16 countries with expertise in health, nutrition, environmental sustainability, food systems, economics and political governance. It establishes the first scientific targets for a healthy diet from a sustainable food production system that operates within planetary boundaries for food. The Commission also promotes diets consisting of a variety of plant-based foods, with low amounts of animal-based foods, refined grains, highly processed foods, added sugars, and unsaturated rather than saturated fats. Its experts argue that these diets—which are largely plant-based and low in red meat and sugar—are the best way to feed a global population expected to reach 10 billion by 2050. A widespread shift in the way people eat could prevent approximately 11 million premature deaths each year and slow environmental degradation, the authors say.

Also see: <https://www.hsph.harvard.edu/news/features/food-transformation-human-planetary-health/>
<https://www.hsph.harvard.edu/nutritionsource/sustainability/>
<https://www.hsph.harvard.edu/nutritionsource/sustainability/plate-and-planet/>

NUTRITION SOURCE TEAM INFORMS A PUBLIC HUNGRY FOR RELIABLE & TRUSTWORTHY NUTRITION ADVICE!

The Department of Nutrition's *Nutrition Source* website is a leading authority on food and nutrition knowledge, providing science-based guidance for healthy living. It offers comprehensive nutrition information, healthy recipes, and toolkits for healthy eating, as well as sound, unbiased content on the latest research in nutrition. Although *The Nutrition Source* is the most-visited site of all the Harvard Chan School websites, it is maintained by a very small, yet dedicated team, led by **Brett Otis**. In addition to continually updating *The Nutrition Source*, Brett is also involved in other nutrition-related outreach and communications activities at the Chan School. Brett is a very peripatetic guy, and it can be rather difficult to catch up with him at times, but *NutriNews* managed to get him to stop and take a breather for a minute to sit down for this interview. Let's meet Brett now!

NN: Brett, you always look so busy! Can you tell us what your overall role here is as Digital Media Communications Coordinator for the Department of Nutrition?

BO: Like many communication-based roles, mine includes a bunch of tasks spanning project management, writing, editing, photography, design, etc.—so luckily, I like to keep busy! At a high-level, much of my work is about making research accessible and useful to range of audiences. Managing the day-to-day operations of [The Nutrition Source](#) website takes up most of my time (more on that below). To a smaller extent I also work on a few other sites—including our Departmental site which I’m continuously tweaking to meet the needs of our various visitors, and to showcase the incredible community we have here in Nutrition (shout-out to **Hilary Farmer** and the *NutriNews* contributors for making this happen on a monthly basis!).



You can also find me providing communication support to miscellaneous projects here in the department and around the school, such as the marketing for our new MPH-65; collaborating on the [university-wide healthy and sustainable event guide](#); and guest lecturing or facilitating media trainings. Working with colleagues both here and outside the department is absolutely one of the best aspects of my role.

NN: What is your educational background? It’s interesting to see how you have managed to combine your journalism and media skills with a focus on healthy eating. How did you get your start?

BO: For undergrad I started out broadly pursuing a career in news, and did receive a B.S. in multimedia journalism from Emerson College in 2012. However, as early as freshman year I began to sense my interests shapeshifting after a course on health and science reporting. These interests also led me to some foundational courses in Emerson’s Health Communications program, where I ultimately received a minor in the field—alongside a second minor in marketing and public relations. Not sure how I managed that course scheduling, but I’m glad I did as it was quite the synergistic trio of disciplines.



Food has been an interest for a long time—likely rooted in the good fortune of spending childhood summer’s in my great-grandmother’s large home garden and visiting farmer’s markets with my parents (fun fact: I even spent a few weeks in high school working on a garlic farm that needed extra hands for the harvest...the smell was as pungent as you might think!). However, merging my educational background with food and healthy eating coincided with my first day in the department in 2012. I had a LOT to learn about nutrition, but fortunately working here has been a continuing education experience on its own. It was also here that I found a particular interest in exploring the bigger picture of food beyond our personal plates. In 2016, I decided to pursue a Master’s degree through Harvard Extension School’s sustainability program, and focused my coursework on the food system as well as healthy and sustainable communities. I just wrapped-up the program last month and look forward to commencement this May.

NN: I understand The Nutrition Source is the most visited website at the Harvard Chan School. Can you tell us a bit about the site, and how you envision it evolving over time?

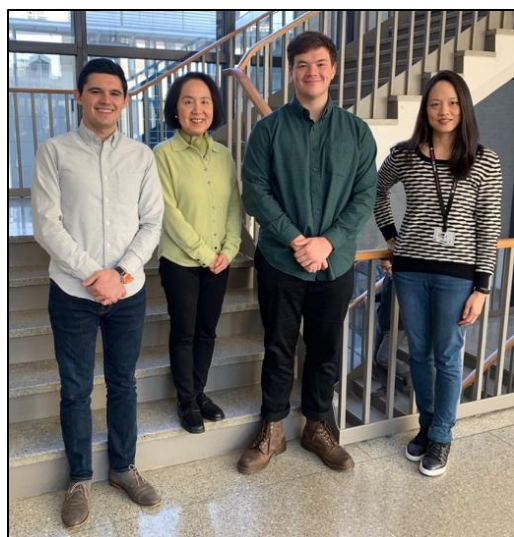
BO: True to its name, The Nutrition Source aims to be a compendium of science-based information and guidance for healthy living. With over 500 pages and counting, the site’s content ranges from in-depth articles and research reviews, to recipes and practical tips to facilitate the translation of knowledge into daily practice. A key goal of The Nutrition Source is to serve as a trustworthy voice amongst the seemingly endless supply of nutrition misinformation and confusion.

I think we provide the critical service of discussing new research in context of existing evidence—something that’s too often missing from the headlines and soundbites of our fast-paced news cycle.

Since it was launched in 2001, The Nutrition Source has continuously reached a large, global audience, receiving around 4 million visitors annually over the last few years! This is quite incredible considering the online landscape today as compared to 18 years ago. Alongside some exciting new developments in key content topics, what we’re also eyeing now and moving forward is continuously adapting our content to trends in user behavior. For example, over half of all visits to the website are through a mobile device—a much different experience than on a wide desktop screen. At the same time, with so many more voices vying for consumer attention, trends indicate people are increasingly less likely to click-through from social media to an actual website. This means that our work isn’t done after publishing the webpage; we have to modify and tailor our content to graphics, short videos, and other formats to inform and educate within social media feeds. Although there are certainly challenges to this changing user behavior, the benefit is that it nudges us to get creative in reaching our audience.



NN: *People might be surprised to learn that The Nutrition Source is primarily maintained by only a few individuals! Can you tell us a bit about your team?*



BO: Along with **Dr Lilian Cheung** as our editorial director (who launched the site back in 2001), **Nancy Oliveira**, **Will Koh**, and I make up our small but dedicated team. Nancy—who is also a practicing registered dietitian—joined us two years ago as our primary science writer, and has been invaluable in revising existing webpages and contributing a range of new content. Will—who has a background in environmental management—joined us this past fall as an editorial research assistant to help expand the website’s sustainability content. The four of us bring a range of interdisciplinary skillsets and we certainly make a great team. Of course, maintaining this robust website is truly a collaborative departmental effort. We rely on our faculty editorial board for their thorough review of all content before it is published; and our department’s researchers and students are regularly a valuable resource for insights and topic ideas. Thank you all!

NN: *So, Brett, now that you’ve finally finished your master’s program at Harvard’s Extension School, how do you plan to while away all those long, empty hours in your spare time now? (Just kidding!)*

BO: Instead of New Year’s resolutions, I like to pick a word each NYE as an “anchor” for my intentions over the next 365 days. For 2019 it’s *rediscover*, precisely because I look forward to jumping back into some hobbies that took a back seat to weekends of class and homework! When the weather gets a bit warmer I plan on dusting off my road bike for some weekend rides, and deciding what to grow in my small-but-mighty container veggie garden (picture left shows a sample of last year’s haul). For now, I’m keeping busy on these chilly days with some art projects as well as a stack of new cookbooks to work through.



Nancy Oliveira, Science Writer

Nancy Oliveira joined The Nutrition Source team as a science writer in July 2016. She obtained her master's degree in nutrition communications at Tufts University and has a background as a medical writer and editor for oncology and general health websites, and also worked for several years managing the proofreading department at the *Journal of Bone and Joint Surgery*. She has also been a registered dietitian for almost 15 years and currently manages the Nutrition Clinic at Brigham and Women's Faulkner Hospital. A big challenge is providing clarity to her patients who may be confused about what to eat, due in part to media messaging and even conflicting nutrition information that their physicians provide.

"This adds a unique perspective to my position at The Nutrition Source, which has allowed me to research and tackle the hot ticket topics people are asking. It is the perfect symbiotic relationship where my patient's questions become articles on The Nutrition Source, and in turn I relay that information to my patients. They don't just want a surface answer of what to do; they want to understand 'the why' of changing their behaviors, and my exposure to Harvard's nutrition research allows me to provide them and their physicians with the in-depth answers they are seeking. The Nutrition Source is one of the most collaborative and hardworking editorial teams I have ever worked with, and I'm excited to be part of its future."

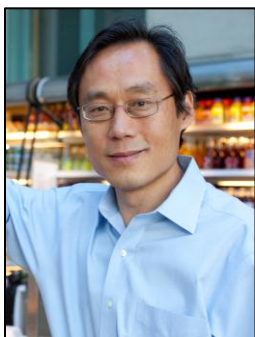


William (Will) Koh
Editorial Assistant

As part of the *Nutrition Source* team, Will researches and writes content for the website related to the intersection of diet, nutrition, and the environment. He informs readers about sustainability issues in the modern food system and ties that information to existing nutrition advice on the site. In particular, Will is focusing future pages on detailing the environmental externalities of red meat and the complicated future of seafood. He has greatly enjoyed translating and unpacking the newly released *EAT-Lancet Report* and feels proud contributing to a department that supports the concept of a *planetary health diet*.

Will graduated with a Master of Environmental Management from the Yale School of Forestry and Environmental Studies, where he analyzed the environmental impacts of industrial animal agriculture and its role in the American food system. He earned my BA from Yale in History.

Dr Frank Hu Responded to Recent Criticisms on Nutritional Epi Research and Controversies Regarding Saturated Fat, Coffee, and Alcohol



In a recent interview with *Medscape*, **Dr Frank Hu** (Professor and Chair, Department of Nutrition) offered some guidelines for conducting nutritional epidemiologic studies that are based on scientific rigor and reproducibility. For example, Hu states that solid evidence is built on high-quality studies that include a large enough number of participants to attain sufficient statistical power; high follow-up rates with good dietary compliance; carefully designed and validated dietary assessment tools; carefully conducted statistical analyses taking potential confounding factors into account; reproducible results across populations; supporting evidence from feeding studies with physiologic or biochemical outcomes; and a careful interpretation of data.

Regarding dietary assessment, Hu said that there is no perfect method to measure diet in free-living populations due to its complexity and dynamic nature. But he emphasized that repeated measurements of diet (using either self-reported methods or biomarkers) can reduce noise in the data and improve the accuracy of dietary assessment.

To address the controversy about saturated fat, Hu highlighted the issue of comparison/replacement of macronutrients. Although saturated fat is better than trans fat in terms of heart disease risk, it is not a healthy choice compared with unsaturated fats from vegetable oils, avocados, nuts and seeds, and seafood. Hu said there was convincing evidence that regular consumption of coffee does not increase risk of chronic diseases, and said that "If you enjoy coffee, you can continue to do so. But if you prefer tea, there is no compelling reason to switch from tea to coffee." Regarding moderate alcohol consumption, it is important to balance potential health risks (e.g. increasing cancer risk) and benefits (e.g. reducing heart disease risk). Hu stressed that individuals who do not drink alcohol should not start drinking for any reason.

Hu also cautioned authors, journal editors, and the media against sensationalism and exaggeration of nutritional findings, and noted that the newest study is not necessarily better. Rather, he suggests that when you see a sensational or attention-grabbing headline about a nutrition study, you should ask yourself just how reliable the study is and how well it fits with the rest of the literature. Scientific evidence is cumulative and continually evolving, so contradictions among studies will often occur. Hu underscored that it is critical to interpret the data in the context of existing evidence and remain skeptical of sensational headlines.

Finally, readers should be aware that there is no such thing as a one-size-fits-all diet. Diets can be flexible and yet still remain healthy if they include higher amounts of fruits, vegetables, nuts, legumes and whole grains; lower amounts of red and processed meats, and refined grains; reduced intake of sodium; low consumption of added sugar, especially sugar-sweetened beverages; and balance portion size control with physical activity. Both human health and environmental impact also need to be considered, as well as making healthy, sustainable, easy and affordable food choices available to all through public health approaches such as policies and regulations.

To read Dr Hu's interview: https://www.medscape.com/viewarticle/907812#vp_1

NEWS FROM AROUND THE NUTRITION DEPARTMENT

The following paper was published by **Dr Miguel Martinez-Gonzalez**, Adjunct Professor of Nutrition:

Martinez-Gonzalez MA, Buil-Cosiales P, Corella D, et al. Cohort Profile: Design and methods of the PREDIMED-Plus randomized trial. *Int J Epidemiol* 2018 Nov 22. doi: 10.1093/ije/dyy225. [Epub ahead of print]

This paper is important (and its importance will grow over time) because it depicts the methods and design of the large PREDIMED-Plus trial of the Mediterranean diet, weight loss, and physical activity for primary cardiovascular prevention. Several faculty members from HSPH, including **Drs Walter Willett** and **Frank Hu**, contributed towards the design of this trial. **Dr Meir Stampfer** is the Chair of the External Data and Safety Monitoring Board of PREDIMED-Plus and Dr Martinez-Gonzalez is the Principal Investigator of the European Research Council Advanced Research Grant that funds this trial.

Mary Kathryn Poole, PhD student, has coauthored the following publication:

Cradock AL, **Poole MK**, Vollmer LY, Barrett JL, Flax CN, Hecht CA. State approaches to testing school drinking water for lead in the United States. Boston, MA: Prevention Research Center on Nutrition and Physical Activity at the Harvard T.H. Chan School of Public Health; 2019. Available at <https://www.hsph.harvard.edu/prc/projects/school-research/early-adopters>.

The Communities for Healthy Living team led by **Dr Kirsten Davison**, Donald and Sue Pritzker Associate Professor of Nutrition, has published a paper outlining the protocol for their new intervention:

<https://www.sciencedirect.com/science/article/pii/S1551714418304324>

Beckerman JP, Aftosmes-Tobio A, Kitos N, et al. Communities for healthy living (CHL) - A family-centered childhood obesity prevention program integrated into Head Start services: Study protocol for a pragmatic cluster randomized trial. *Contemp Clin Trials*. January 2019. doi:10.1016/j.cct.2019.01.002.

New Faces in the Department!



Yixin Wang
Postdoctoral Fellow

Hello everyone, I am Yixin Wang from China, working as a postdoctoral fellow in the Department of Epidemiology and Biostatistics, Huazhong University of Science and Technology. During the past 5 years, I have done some very interesting work on human reproductive health studies. I have just joined the research group of **Dr Jorge Chavarro** and will spend the next 2 years at HSPH to gain experience in nutritional epidemiology. I am really excited to join the Nutrition Department.

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 February:

- February 4:** **Dr Anna Lartey**, Director of Nutrition and Food Systems Division, Food and Agriculture Organization. *"While feeding ten billion people by 2050, what happens to our Nutrition?"* NGHP
- February 11:** **Dr Iris Shai**, Professor of Nutrition and Epidemiology, Ben Gurion University of the Negev. *"Green-MED Diet enriched with Mankai - a protein-rich aquatic plant, and cardiometabolic health: Insights from the DIRECT-PLUS trial."*
- February 18:** **PRESIDENT'S DAY**
- February 25:** **Dr Walter Willett**, Professor of Epidemiology & Nutrition, Harvard Chan School. *"The search for a path to feed 10 billion a healthy and sustainable diet."*

For more information, contact: hfarmer@hsph.harvard.edu

Where Are They Now?



Dr. Sylvia Ley is now an Assistant Professor, Department of Epidemiology, Tulane University School of Public Health and Tropical Medicine. She joined our department as a Canadian Institutes of Health Research funded Research Fellow in Fall 2012 and was promoted to a Research Associate after her fellowship and to a Research Scientist before she began her new position at Tulane. She can be contacted at sley@tulane.edu.

Message from Sylvia: "I am grateful to my mentors and friends at Harvard. I have grown greatly working with large-scale cohort studies including the Nurses' Health Studies, Growing Up Today Study, and Diabetes and Women's Health Study. I look forward to continued collaboration with Harvard investigators and also to new opportunities at Tulane including the Bogalusa Heart Study."

NEW FACULTY AND RESEARCH SCIENTIST APPOINTMENTS:

Dr Qibin Qi, Adjunct Associate Professor of Nutrition. Dr. Qi's current work focus on the inter-relationships of genetic variants, biomarkers, and dietary intakes and other environmental factors with obesity, type 2 diabetes and related diseases by using a genome-wide association analysis, a G*E interaction and a Mendelian randomization approach. He is also interested in the studies of gene-diet interactions on weight-loss and improvement of related metabolic risk factors in clinical trials. Dr Qi's primary appointment is Associate Professor, Department of Epidemiology & Population Health, Albert Einstein College of Medicine

Dr Alessio Fasano, Professor in the Department of Nutrition (Secondary). **Dr Fasano** is a medical doctor, pediatric gastroenterologist and researcher. He holds the W. Allan Walker Chair of Pediatric Gastroenterology at Massachusetts General Hospital, and is also Vice Chair of Basic, Translational, and Clinical Research and Division Chief of Pediatric Gastroenterology and Nutrition at the MassGeneral Hospital for Children in Boston. Dr Fasano has made major contributions to the understanding of autoimmune diseases, in particular celiac disease.

Dr Kerry Ivey, Research Scientist

Dr Yanping Li, Senior Research Scientist

New Online Nutrition Course a Huge Success!

A new online course titled "**Evidence-based Optimal Nutrition: The Quest for Proof!**" has been launched by three leading experts in the science of nutrition, **Drs Eric Rimm** (Course Director), **Frank Hu**, and **Walter Willett**, all of the Nutrition Department at the Harvard T.H. Chan School of Public Health. So far the course has attracted hundreds of registrants from 6 continents and more than 50 countries across the globe!

This is a self-paced online nutrition course designed to enable participants to cut through the confusion caused by all the food advertisements, promotions, and warnings currently bombarding them in today's world to enable them to better learn the true evidence-base for nutrition. The course contains three separate modules: To start, **Dr Walter Willett** will provide a lecture on *Dietary Quality and Chronic Disease Prevention*. Next, **Dr Frank Hu** will present a module on *Curbing the Global Obesity Epidemic: From Science to Policy*. Finally, **Dr Eric Rimm** will teach a module on *Popular Diets: The Good, the Bad, and the Ugly*. Information from these leading experts will enable registered dietitians, health professionals, and the general public alike to gain an in-depth understanding of the evidence-base for

nutrition, as well as skills to assess nutrition evidence. Those who successfully complete the course will earn a Certificate of Completion from the Harvard T.H. Chan School of Public Health.

Those who register for the course will learn about food and nutrition trends in the United States and globally; genetic, nutritional, environmental, and global causes of obesity; the effects of various dietary patterns, macronutrients, and micronutrients on chronic disease risk; dietary and behavioral changes that are evidence-based strategies to promote weight loss; and strategies that will enable participants to understand best practices for evaluating new nutrition studies when they are released

Some key questions addressed in this course include: How does our diet affect our likelihood of developing a chronic disease? How can nutrition promote health for ourselves and our patients? What does obesity look like on a global scale? Are food policies having an impact on obesity rates? Do popular diets work? What advice can we confidently give people about diet and weight loss?

Any proceeds from this course will help continue to fund educational and research efforts in the Department of Nutrition at the Harvard T.H. Chan School of Public Health.

From: <https://sites.sph.harvard.edu/optimal-nutrition/>

To register: <https://harvard-hsph-nutrition.catalog.instructure.com/>

NUTRITION SOURCE UPDATES

Plate and the Planet

Different foods have differing impacts on our health; they also have differing impacts on the environment. Learn about a “planetary health diet.”

<https://www.hsph.harvard.edu/nutritionsource/sustainability/plate-and-planet/>

Strategies to reduce red meat and elevate your plate

Here are four key approaches to cutting back the red meat while keeping your meals filling and flavorful. Simply find your “starting point” and move forward with the strategies that work for you.

<https://www.hsph.harvard.edu/nutritionsource/elevate-your-plate/>

Lectins

Lectins are an “anti-nutrient” that have received much attention due to popular media and fad diet books citing lectins as a major cause for obesity, chronic inflammation, and autoimmune diseases. Is there truth behind these claims?

<https://www.hsph.harvard.edu/nutritionsource/anti-nutrients/lectins/>

Re-thinking your New Year’s resolutions

This year, resolve to nourish both your body and mind with each meal by slowing down, paying attention, and truly savoring your food. <https://www.hsph.harvard.edu/nutritionsource/2013/12/20/re-thinking-your-new-years-resolutions/>

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: <https://www.hsph.harvard.edu/nutritionsource/>)

The Department of Nutrition is currently seeking candidates for the position of Assistant or Associate Professor of Integrative Genomic Epidemiology. Please feel free to share this with your colleagues!

For more information: <https://academicpositions.harvard.edu/postings/8319>