

TEACHING KITCHEN COLLABORATIVE RESEARCH DAY

WEDNESDAY, FEBRUARY 7, 2018 | NAPA VALLEY, CA



2018 FINAL REPORT

WWW.TKCRESEARCHDAY.ORG



HOSTS



HARVARD T.H. CHAN
SCHOOL OF PUBLIC HEALTH



TABLE OF CONTENTS

1	Committees
2-3	Overview of the Conference
4	Conference Features
5	Conference Facts
6-7	Conference Stats
8-10	Plenary Speakers
11	Conference Supporters
16	2018 Conference Agenda

“

The range and depth of work that others are doing is amazing - the field is new but there is already so much happening and so many opportunities for collaboration and for studies. It was fantastic to be able to connect with others doing similar work!

”

COMMITTEES

ORGANIZING COMMITTEE



David Eisenberg, MD
Harvard T.H. Chan School of Public Health



Aviad Haramati, PhD
Georgetown University School of Medicine



Jennifer Massa, ScD
Harvard T.H. Chan School of Public Health

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Earl E. Bakken Center for Spirituality & Healing

Sian Cotton, PhD
University of Cincinnati,
Center for Integrative Health and Wellness

Brian Frank, MD
Oregon Health and Science University

Christopher Gardner, PhD
Stanford University

Katherine Gergen-Barnett, MD
Boston Medical Center

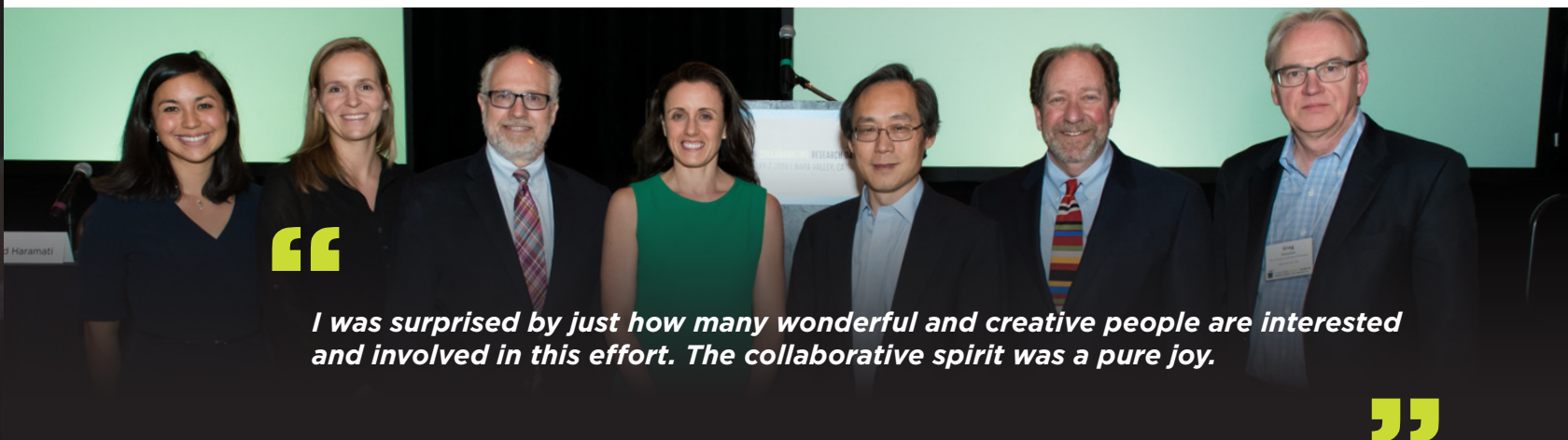
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Janet Leader, MPH, RDN
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School of Public Health

Auden McClure, MD
Dartmouth Hitchcock Medical Center

Rani Polak, MD
Spaulding Rehabilitation Hospital, Harvard University
And Sheba Medical Center, Israel

Melinda Ring, MD
Osher Center for Integrative Medicine
at Northwestern University



RESEARCH DAY OVERVIEW

The term “teaching kitchen” may bring to mind an image of chefs demonstrating knife skills and culinary techniques to engaged participants. However, if reimagined far beyond a traditional cooking class, teaching kitchens can be viewed as “learning laboratories” for life skills—incorporating nutrition education, mindfulness training, movement and exercise, personalized health coaching, and more.

Inspired by this vision, thought leaders around the world are experimenting with the design, implementation, and evaluation of teaching kitchen programs for participants in a range of settings, including universities, hospitals, corporate worksites, K-12 schools, and community organizations. In February 2018, over 125 of these pioneering individuals from 24 states as well as Japan and The United Arab Emirates gathered for the inaugural *Teaching Kitchen Collaborative Research Day* to share scientific findings and experiences in this growing movement.

The Teaching Kitchen Collaborative (TKC), launched in 2016 by the Harvard T.H. Chan School of Public Health (Harvard Chan) and The Culinary Institute of America (CIA), is an invitational network of over 30 organizations using teaching kitchen facilities as catalysts of enhanced personal and public health. The TKC’s mission is to enable early adopters to learn about one another’s facilities and educational programs, to develop best practices for reproducing and scaling emerging models, and to document the clinical, behavioral, and financial impact of teaching kitchens for a broad range of populations. The idea behind hosting a research conference was proposed at the group’s initial meeting in February 2016 with the intention of demonstrating the capacity of the TKC to pursue these shared aspirational goals among a public audience.

The inaugural TKC Research Day, made possible by a National Institutes of Health (NIH) grant and a few generous supporters, highlighted 17 oral abstract presentations, 40 poster presentations, and four plenary lectures by Dr. Eisenberg, Director of the TKC; Dr. Frank Hu, Chair of the Department of Nutrition at Harvard Chan; Michiel Bakker, Director of Food at Google, and Wendy Weber, ND, PhD, MPH, Acting Deputy Director of the National Center for Complimentary and Integrative Health at the NIH. Twenty-seven of the current TKC member organizations participated with formal scientific presentations. Fifteen percent of attendees were students or trainees, and nearly half of those present were new to the TKC, thereby affirming the extent to which national and international interest in this emerging line of inquiry is growing rapidly.





Fascinating to see the different goals of a teaching kitchen.



Dr. Eisenberg's opening presentation delved into the impetus for the TKC, beginning with his personal observations from 20 years ago: few practicing physicians knew anything about the science of nutrition, and most health professionals knew even less about cooking healthy, delicious, affordable meals for themselves, let alone for their patients. He described the partnership between Harvard Chan and the CIA as the vehicle whereby the medical and culinary communities could join together to create a united front in an effort to address the burden of diet and lifestyle related chronic disease. Dr. Eisenberg summarized the evolution of the annual *Healthy Kitchens, Healthy Lives®* (HKHL) conference (www.healthykitchens.org), which has been successfully offered each year since 2006, providing science-based and practical advice to more than 6,000 health professionals. Survey data in 2015 indicating that more than a third of HKHL attendees had built or would soon build teaching kitchens provided the unequivocal spark to create the TKC.

Dr. Frank Hu spoke on the topic of "Teaching kitchens as essential elements of translational nutrition research." He discussed teaching kitchens as virtual clinical research labs to evaluate novel curricula, outcomes, assessment tools and technologies. As envisioned by Dr. Hu, teaching kitchens may serve as instructional classrooms to help translate, in very practical terms, the *Dietary Guidelines for Americans* and make them relevant and accessible to all audiences. Similarly, they can provide current health professionals with practical healthy eating knowledge and skills to pass on to their patients, and serve as venues for hands-on educational opportunities for the next generation of chefs, graduate students, dietetic students, medical and nursing students, etc. In the emerging field of "precision nutrition," Dr. Hu believes that teaching kitchens could be used as laboratories to explore the potential of tailoring dietary recommendations to an individual's microbiome, genetic and metabolic profile. In closing, Dr. Hu envisioned a network of global teaching kitchens which would bring together the best in cooking with the most up-to-date science to benefit individuals, populations and the global environment.

Michiel Bakker's plenary presentation described Google's extensive experience building and refining teaching kitchens across its global campuses. Google constructed its first teaching kitchen in Mountain View, CA in 2013 and now has seven functioning teaching kitchens worldwide that engaged more than 11,000 employees in 2017 alone. Additionally, Google now has plans to build 17 new teaching kitchens over the coming year. Mr. Bakker shared several important guiding principles and lessons learned, including: (1) learn by acting, launching and iterating; (2) keep it simple; (3) consider all aspects such as pre-, during, and post-buildout of the teaching kitchens; and (4) not everything can or should be measured. Importantly, Mr. Bakker conveyed Google's continued commitment to work with the TKC to validate health outcomes, develop enhanced surveys and questionnaires, meaningful types of teaching kitchen curricula and interventions, and a shared path towards certification standards and careers for those who will lead and serve as instructors in future teaching kitchens.

Dr. Weber delivered the final plenary talk of the day, entitled, *Possibilities for the Future of Teaching Kitchen Research: Perspectives from the NIH*.¹ She summarized previous nutrition research across the NIH as well as the many challenges in this important aspect of scientific inquiry. She then rhetorically asked, "How does nutrition research go from the laboratory or research setting to making a large impact on public health that is sustainable?" This was followed by a rhetorical answer, namely: "Could the teaching kitchen model be a way to achieve this goal?" Dr. Weber shared the view that teaching kitchens can provide an effective way to teach cooking skills and nutrition information: (1) to individuals who are not learning these skills elsewhere; and (2) in a manner which provides fundamental knowledge necessary to promote health and wellness. Dr. Weber believes that teaching kitchen programs may have broad-based reach in the public if delivered in enough locations or through online and/or mobile delivery; and if multiple locations collect similar baseline and follow-up data, thereby allowing the NIH to look at the impact of teaching kitchens across various populations.

¹Eisenberg, DM. Teaching Kitchen Collaborative Research Day February 7, 2018. J Altern Complement Med. 2018 Jul;24(7):615-618.

CONFERENCE FEATURES

FEATURES OF THE 2018 TKC RESEARCH DAY

The TKC 2018 Research Day offered a variety of sessions formats, which generated a dynamic and educational program.

Plenary Sessions

The conference program included 3 plenary speakers. The first two speakers of the day, Frank Hu and Michiel Bakker, addressed key reflections and lessons learned in their quests to establish teaching kitchens. The final speaker, Wendy Weber, offered the NIH's perspective on the future of teaching kitchens. A more detailed description of each plenary session appears later in this report.

Oral Presentations

Four abstract sessions highlighted a total of 17 abstracts that were selected to be given in oral format (10 minutes of presentation followed by 5 minutes of questions and comments).

Poster Presentations

Over 40 abstracts were presented in poster format, addressing eight different themes: Pilot and Demonstration Projects Involving TKs Across Specific Populations, Educational Components/Curricula/Strategies Involving TKs, Research Methodologies Involving TKs, Agricultural Partnerships Involving TKs, Development of TK Models or Build-Outs with Detailed Descriptions, Cost-Effective Strategies and Partnerships with 3rd Party Payers, and Technology and Web-Based Platforms and/or Devices to Enhance TKs.

Travel Awards Provided to Students and Trainees With Accepted Abstracts

The TKC 2018 Research Day provided travel awards to the following 12 individuals:

Marissa Black, Veterans Affairs, United States

Caroline Jolley, School of Medicine, Oregon Health and Science University, United States

Begum Kalyoncu, Nutrition Dept at Harvard TH Chan School of Public Health, United States

Ryan Kane, Department of Nutrition, Harvard T.H. Chan School of Public Health, United States

Gang Liu, Department of Nutrition, Harvard T.H. Chan School of Public Health, United States

Jehan Luth, University of Pennsylvania, United States

John Wesley McWhorter, University of Texas School of Public Health, United States

Aviva Musicus, Department of Nutrition, Harvard T.H. Chan School of Public Health, United States

Margaret Raber, University of Texas MD Anderson Cancer Center / UT School of Public Health, United States

Emma Steinberg, University of California, San Francisco, United States

Miranda Westfall, University of California, Los Angeles, Fielding School of Public Health, Department of Community Health Sciences, United States



CONFERENCE FACTS

The Research Day had **109 institutions**,
representing **3 countries**.

64 TKC members in attendance,
consisting of **27 TKC Member Institutions**.

61 attendees from
53 institutions new to the TKC.

11 students/trainees received travel awards to attend.

63 abstract submissions were received
and presented at the Research Day.

The conference featured **17 oral presentations**,
43 poster presentations and **3 keynote** speakers.

TKC 2018 **abstract presentations**:

Pilot and Demonstration Projects
Involving TKs Across Specific
Populations **26**
Educational Components/Curricula/
Strategies Involving TKs **20**
Research Methodologies Involving TKs . . . **7**
Agricultural Partnerships Involving TKs . . . **3**

Development of TK Models or Build-
Outs with Detailed Descriptions **2**
Cost-Effective Strategies and
Partnerships with 3rd Party Payers **1**
Technology and Web-Based Platforms
and/or Devices to Enhance TKs **1**
Other **3**

“

*There are teaching kitchens that cater to many different people/diets/demographics.
We are part of a huge movement and it's exciting to see where it is heading!*

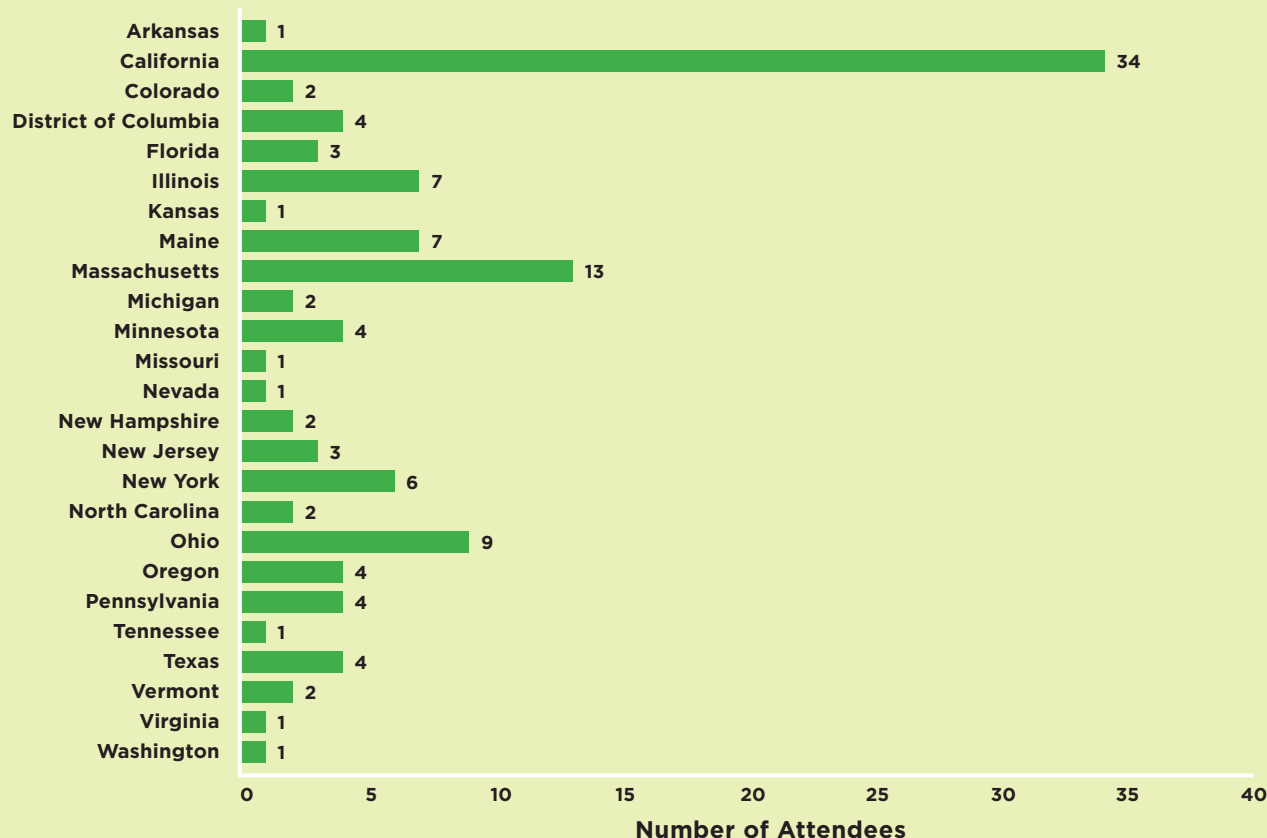
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Vision without execution is hallucination. Wonderful!

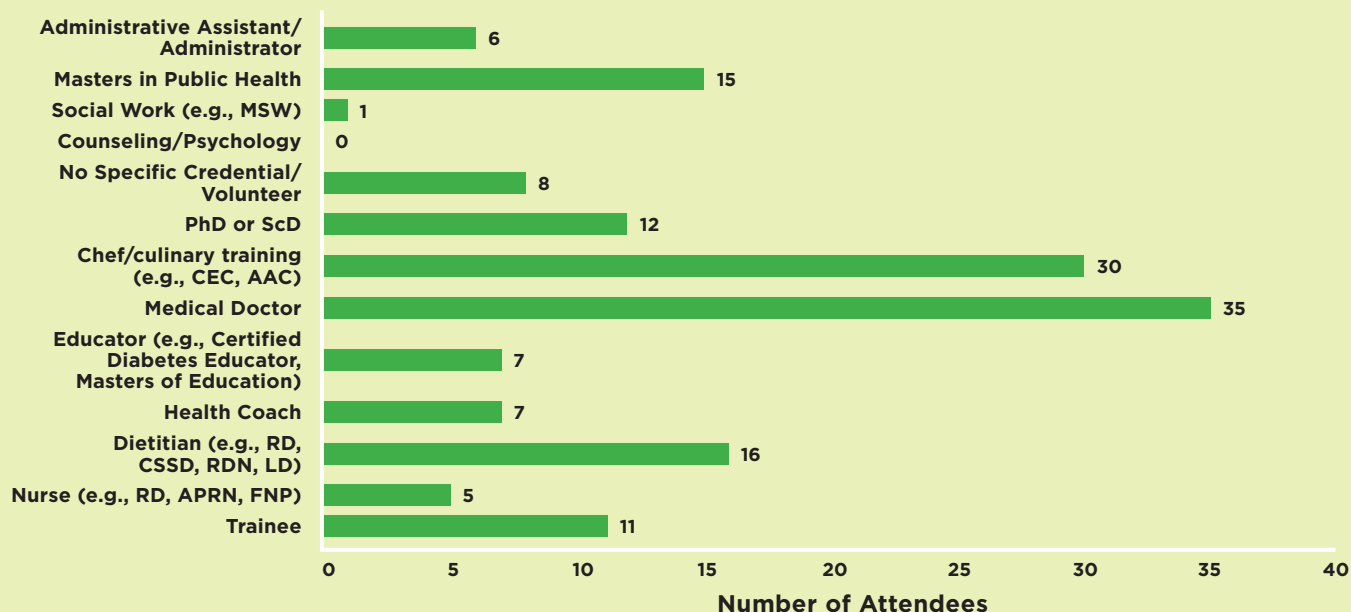
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CONFERENCE STATS

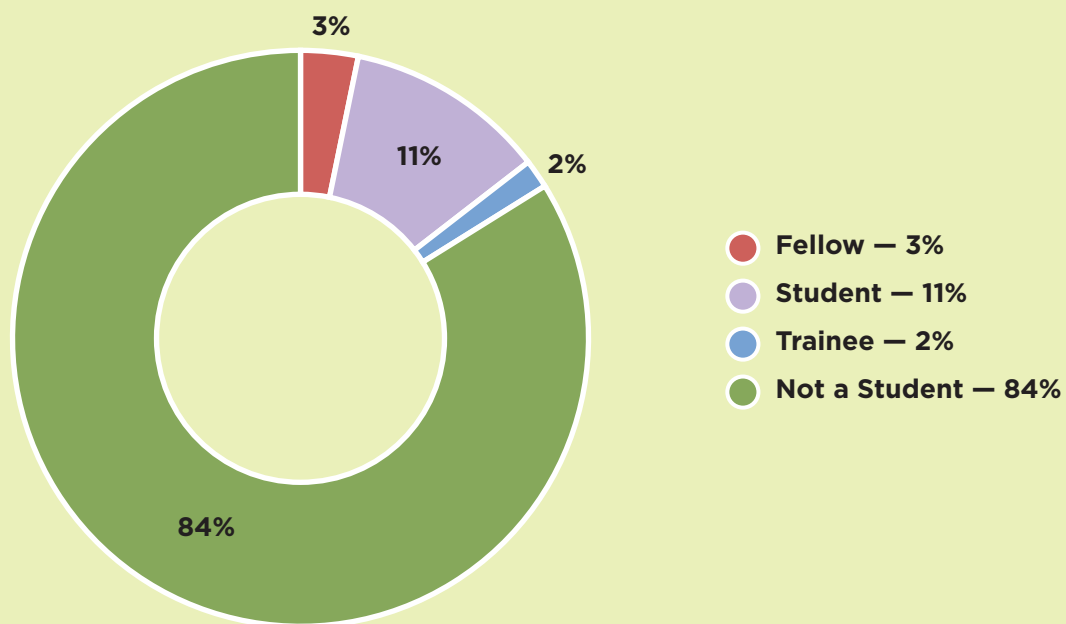
US REGISTRANTS BY STATE



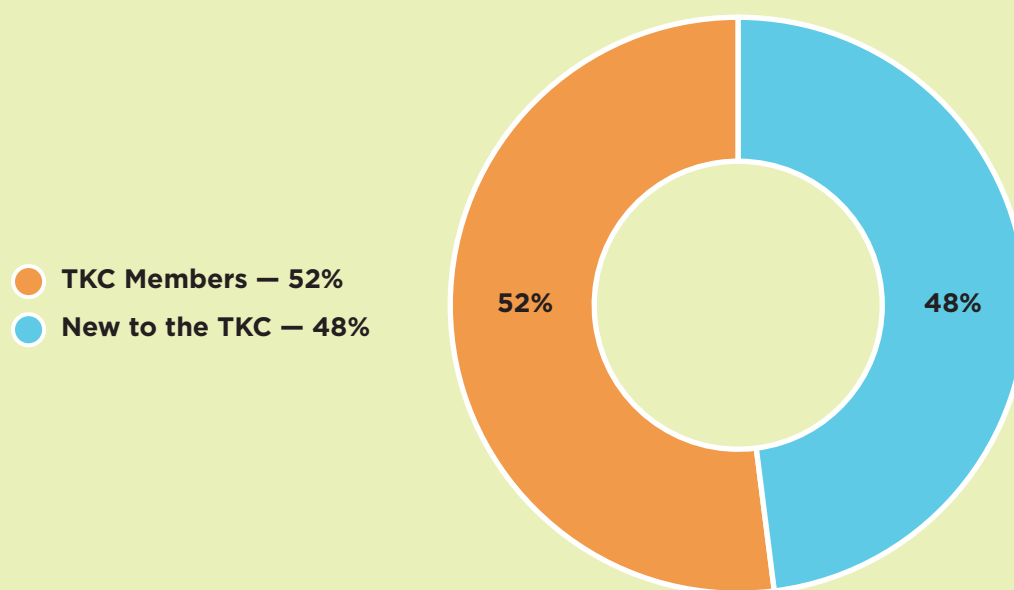
PROFESSIONAL CREDENTIALS (ATTENDEES SELECTED ALL THAT APPLIED)



ATTENDEES' STUDENT STATUS



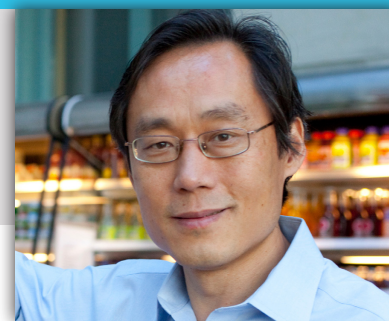
TKC MEMBER STATUS (27 OF 31 TKC MEMBER ORGANIZATIONS REPRESENTED)



PLENARY SPEAKERS

Frank Hu

*Chair, Department of Nutrition
Harvard T.H. Chan School of Public Health*



REFLECTIONS ON U.S. DIETARY GUIDELINES AND IMPLICATIONS FOR TEACHING KITCHENS

Synopsis

Translating nutrition research into practical guidelines and policies is essential for improving public health. The Dietary Guidelines for Americans (DGA) have enormous implications for nutrition and food policies and are informed by the best available scientific evidence. This evidence can be translated into knowledge and skills to be disseminated through teaching kitchens. Looking forward, it will be crucial to generate evidence to clarify nutrition myths and controversial areas, evaluate nutrition policies, and support the growing fields of precision nutrition, nutrigenomics, planetary health and microbiome research. As evidence in these new areas evolves and accumulates, teaching kitchens can be used as laboratories of nutrition translational research.

Dr. Hu envisioned a network of global teaching kitchens which would bring together the best in cooking with the most up-to-date science to benefit individuals, populations and the global environment.

Biography

Dr. Frank Hu is Chair of Department of Nutrition, Fredrick J. Stare Professor of Nutrition and Epidemiology at Harvard T.H. Chan School of Public Health and Professor of Medicine, Harvard Medical School and Brigham and Women's Hospital. He serves as Co-director of the Program in Obesity Epidemiology and Prevention at Harvard and Director of the Boston Nutrition and Obesity Research Center (BNORC) Epidemiology and Genetics Core. Dr. Hu received his MD from Tongji Medical College in China and a PhD in Epidemiology from University of Illinois at Chicago. His research is focused on nutritional and lifestyle epidemiology, prevention of obesity and cardiometabolic diseases, gene-environment interactions, and nutritional metabolomics. He has published >1000 papers (H-index 215) and a textbook on Obesity Epidemiology (Oxford University Press, 2008). In 2010, Dr. Hu received the American Diabetes Association Kelly West Award for Outstanding Achievement in Epidemiology. He has served on the Institute of Medicine (IOM) Committee on Preventing the Global Epidemic of Cardiovascular Disease, the AHA/ACC Obesity Guideline Expert Panel, and the 2015 Dietary Guidelines Advisory Committee, USDA/HHS. He currently serves on the editorial boards of Lancet Diabetes & Endocrinology, Diabetes Care, and Clinical Chemistry. Dr. Hu was elected to the U.S. National Academy of Medicine in 2015.





Michiel Bakker
Director, Food at Google

PLENARY SPEAKERS

TEACHING KITCHENS AT GOOGLE: LESSONS LEARNED

Synopsis

An overview of the Teaching Kitchen program offered in Google offices around the world, key program learnings, and plans for the future.

Mr. Bakker shared several important guiding principles and lessons learned, including: (1) learn by acting, launching and iterating; (2) keep it simple; (3) consider all aspects such as pre-, during, and post-buildout of the teaching kitchens; and (4) not everything can or should be measured. Importantly, Mr. Bakker conveyed Google's continued commitment to work with the TKC to validate health outcomes, develop enhanced surveys and questionnaires, meaningful types of teaching kitchen curricula and interventions, and a shared path towards certification standards and careers for those who will lead and serve as instructors in future teaching kitchens.

Biography

Michiel Bakker is an international Food & Beverage (F&B) professional with over 25 years of global experience in F&B operations, creating and building out partnerships, hotel F&B development and openings, as well as general hotel, service and F&B operations. As the Director of Global Food Services (based in Mountain View, CA), Bakker leads Google's world-renowned Food program, supporting all food service related activities and initiatives for Google's global community. Bakker's focus areas include developing new insights and evidence in how food experiences can enable individuals and teams to be at their best short and long term and developing internal and external global partnerships to explore and tackle the challenges and opportunities in broader food systems. Prior to joining Google, Michiel spent 17 great years with Starwood Hotels & Resorts Worldwide Inc. in various roles. Most recently, he led Starwood's Food and Beverage in Europe, Africa and the Middle East, where he drove operations and guided growth and development. Prior to that, he co-lead Starwood's F&B efforts in its North American Division and was for many years the F&B leader for Starwood's New builds and transitions team. Michiel holds a Bachelor of Business Administration degree from the Hotel Management School Maastricht (The Netherlands), a MBA from the University of Bradford (United Kingdom), a Master's of Hospitality Administration degree from the University of Nevada, Las Vegas (USA), and a Master's degree in Real Estate and Construction Management at the University of Denver, Colorado (USA).



“

The digital pieces were valuable to me because my group is also working to expand our curriculum to a digital platform, so hearing about others (app, ebutton, Google) was very interesting.

”

PLENARY SPEAKERS

Wendy Weber

*Acting Deputy Director, National Center for
Complementary and Integrative Health (NCCIH),
National Institutes of Health*



POSSIBILITIES FOR THE FUTURE OF TEACHING KITCHEN RESEARCH: PERSPECTIVE FROM THE NIH

Synopsis

Dr. Weber shared the view that teaching kitchens can provide an effective way to teach cooking skills and nutrition information: (1) to individuals who are not learning these skills elsewhere; and (2) in a manner which provides fundamental knowledge necessary to promote health and wellness. She also commented that teaching kitchen programs may have broad-based reach in the public if delivered in enough locations or through online and/or mobile delivery; and if multiple locations collect similar baseline and follow-up data, thereby allowing the NIH to look at the impact of teaching kitchens across various populations.

Biography

Wendy J. Weber, N.D., Ph.D., M.P.H., is Acting Deputy Director at the National Center for Complementary and Integrative Health (NCCIH) at NIH. She also serves as Branch Chief for the Clinical Research in Complementary and Integrative Health Branch in the Division of Extramural Research at NCCIH. She joined NCCIH as a program director in 2009. The Clinical Research Branch is responsible for the oversight of all NCCIH-supported clinical trials. Dr. Weber is coordinator for NCCIH's Clinical Trial Specific Funding Opportunity Announcements (FOAs) and point-of-contact for all-natural product-related clinical trial FOAs. She is a member of the NIH Common Fund-supported Health Care Systems Research Collaboratory and the program officer for the Coordinating Center. Dr. Weber is also a member of the planning and oversight team for the NIH-DoD-VA Nonpharmacologic Approaches to Pain Management Collaboratory and project scientist for its Coordinating Center. Dr. Weber earned a doctorate of philosophy in epidemiology and a master of public health from the University of Washington. She earned a doctorate of naturopathic medicine (N.D.) from Bastyr University. Prior to joining NCCIH, she was a research associate professor at Bastyr University, where her research included the study of herbal treatments for pediatric conditions. Her clinical practice focused on the treatment of children and adolescents with mental health conditions, abdominal pain, headaches, and allergies. She has published on treatment of pain with complementary health approaches, echinacea's effect on colds in children, naturopathic treatment of children, and complementary medicine treatments for attention-deficit hyperactivity disorder.

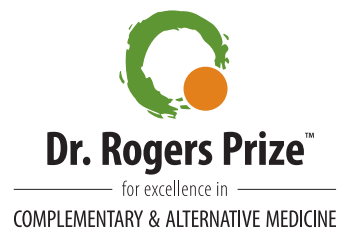


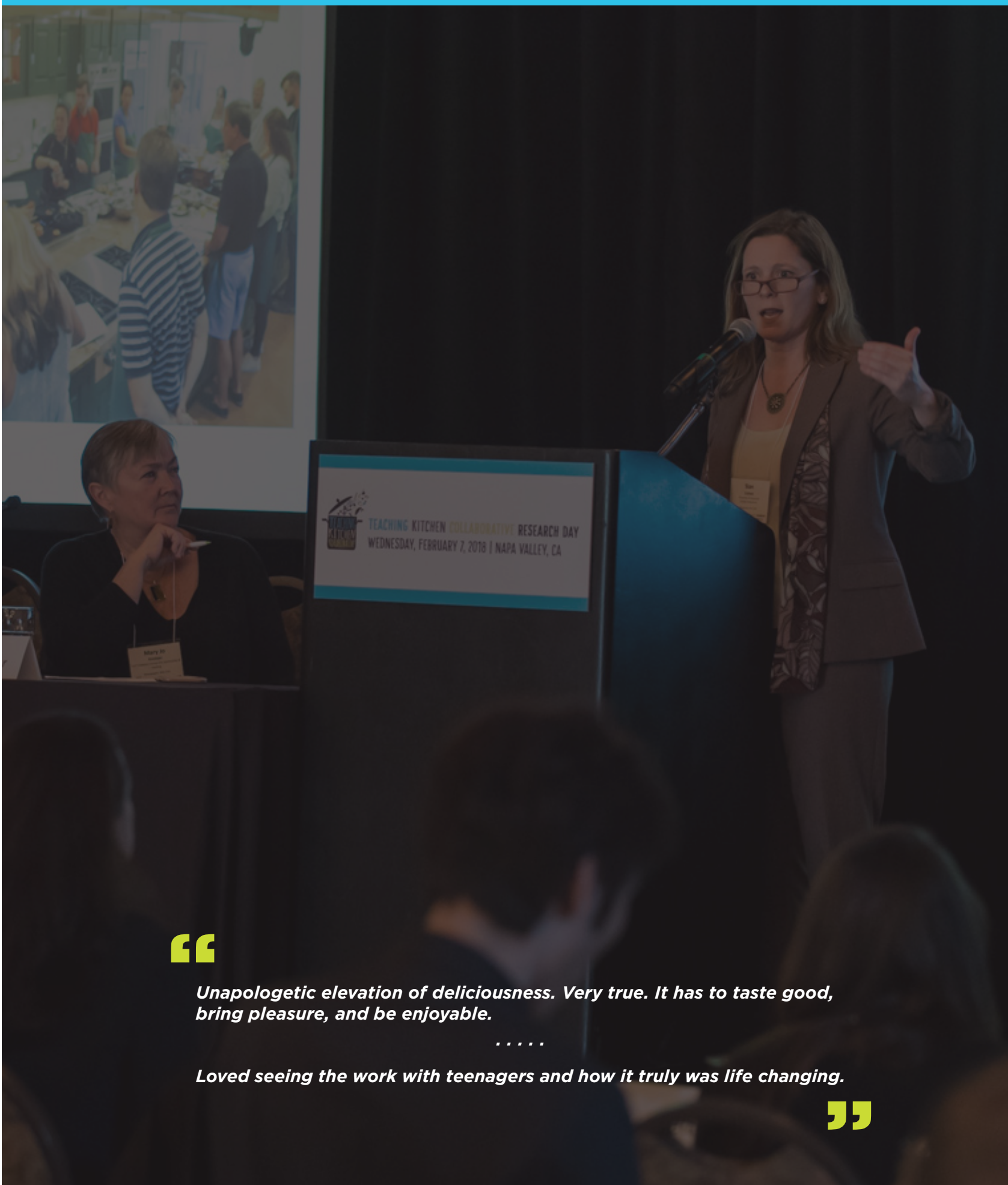
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“

Unapologetic elevation of deliciousness. Very true. It has to taste good, bring pleasure, and be enjoyable.

.....

Loved seeing the work with teenagers and how it truly was life changing.

”

CONFERENCE AGENDA

07:00 - 18:00

Registration

07:00 - 08:00

Breakfast

08:00 - 08:15

Welcome Remarks

David Eisenberg, Director, Culinary Nutrition,
Harvard T.H. Chan School of Public Health

08:15 - 09:00

PLENARY LECTURE 1

Frank Hu, Chair, Department of Nutrition, Harvard
Chan School of Public Health
*Reflections on U.S. Dietary Guidelines and Implications
for Teaching Kitchens*

09:00 - 10:00

ORAL ABSTRACT SESSION 1

10:00 - 11:00

Poster Viewing and Refreshment Break

11:00 - 12:00

ORAL ABSTRACT SESSION 2

12:00 - 13:30

Lunch with Information Tables and Poster Viewing

13:30 - 15:00

ORAL ABSTRACT SESSION 3

15:00 - 15:15

Refreshment Break

15:15 - 15:45

PLENARY LECTURE 2

Michiel Bakker, Director, Food at Google
Teaching Kitchens at Google: Lessons Learned

15:45 - 16:30

ORAL ABSTRACT SESSION 4

16:30 - 16:45

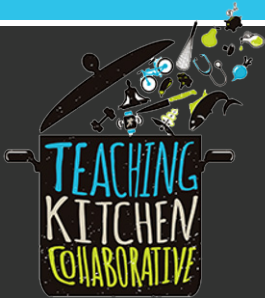
Wendy Weber, ND, PhD, MPH
Acting Deputy Director, National Center for Complementary
and Integrative Health
National Institutes of Health
*Possibilities for the Future of Teaching Kitchen Research:
Perspective from the NIH*

16:45 - 17:00

Abstract Awards, Reflections on the Day, and Closing Remarks

17:00 - 18:00

Poster Reception



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“

This is a growing movement that we need to continue to push forward.

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