

Summer Institute of Advanced Epidemiology and Preventive Medicine Summer 2015

Food Security and Public Health - Course Syllabus

July 12-16, 2015 / 08:30-13:00

Final Exam July 17, 2015 / 9:00-11:00

Sackler Faculty of Medicine / Room 200

Course No. 0158.1153 / 2 Academic Credits

Course Instructors:	Dr. Dorit Nitzan (TAU & WHO), Dr. Jeremy Sobel (CDC), Dr. Tamar Berman (Israel MOH), and Prof. Dani Cohen (TAU)
Teaching Assistant:	Ms. Miri Lutski
Date / Time / Room:	July 12-16, 2015 / 08:30-13:00 / Room 200
Final Exam:	July 17, 2015 / 9:00-11:00 / Room 200

Course Description

This course will provide an overview of Food Security as a public health issue. The course will relate to the globalization of food systems in developing countries and its impact on food and nutrition security. Topics also include scaling up nutrition and health activities, emerging foodborne disease in the 21 century, and surveillance of foodborne diseases. The course will further provide tools for understanding and assessment of food safety challenges in a globalized world, chemical risks to food safety, antimicrobial resistance from a food safety perspective, and food safety risk communication.

Requirements

To receive academic credit for the course, participants must pass the final exam with a grade of at least 60 (D). Non-credit participants are not required to take the final exam.

Instructor(s) Bio

Dorit Nitzan, MD, MPH

Dr. Nitzan served as the World Health Organization (WHO) Representative and Head of Country Office in Ukraine. From 2005 to 2012, she was the WHO Head of Country Office in Serbia and the Manager of Public Health Services for South-east Europe. Prior to that, she was the Director of the Food and Nutrition Administration in the Israeli Ministry of Health. She was active in global health work through the Ministries of Health and Foreign Affairs, WFP and was a consultant to Ethiopia, China, Moldova and the Russian Federation. She also took part in the humanitarian response to the tsunami in Thailand.

Jeremy Sobel, MD, MPH

Dr. Sobel is a medical epidemiologist at CDC's Foodborne and Diarrheal Disease Branch. He obtained his medical degrees from Cornell and his MPH from Emory University. He trained in internal medicine at the New York Hospital and in Preventive Medicine with the CDC and the New York City Department of Health's Bureau of Sexually Transmitted Diseases. He is a graduate of CDC's Epidemic Intelligence Service. His current work interest is in infectious foodborne diseases. He also teaches at Emory's Rollins School of Public Health, and works with Physicians for Human Rights.

Tamar Berman, PhD

Dr. Tamar Berman is the Chief Toxicologist for Environmental Health at the Israeli Ministry of Health. She is involved in policy development in various fields including pesticides, drinking water, air pollution, and consumer products. Tamar has conducted research on dietary predictors of exposure in the general population in Israel to environmental contaminants, including organophosphate pesticides and bisphenol A.

Daniel Cohen, PhD, MPH

Co-Director of the Summer Institute

Professor Daniel (Dani) Cohen is the Head of the School of Public Health, Sackler Faculty of Medicine at Tel Aviv University (TAU). Prof. Cohen is also the Director of the Stanley Steyer Institute for Cancer Epidemiology and Research and Diana & Stanley Steyer Chair of Cancer Prevention and Control. In addition, Prof. Cohen founded the Tiberio Swartz Forum on Epidemiology of Infectious Diseases and Biosecurity. He serves as an executive board member of the Middle East Consortium for Infectious Diseases Surveillance (MECIDS) and also acts on various national and international advisory boards in the field of infectious diseases and vaccines. Prof. Cohen has also been a consultant for the World Health Organization (WHO) on several occasions. He has received awards for his outstanding contribution to research and is the author of more than 180 peer-reviewed articles. A more detailed Bio can be found online: <https://en-med.tau.ac.il/profile/dancohen>.

Course Schedule

Sunday, July 12

8:30-10:00	Course Introduction: Food and Nutrition Security, Safety, and Public Health Globalization of food systems in developing countries: Impact on food and nutrition security	DN
10:30-12:00	<ul style="list-style-type: none"> - Understanding the influence of globalization and urbanization on food systems (food supply, marketing, and distribution) in developing countries - Discuss the effects of these changes on the market, food consumption patterns, and on nutrition and health outcomes. - Highlight the cause and effect Scaling up Nutrition and Health activities	DN
12:15-13:00	<ul style="list-style-type: none"> - Discuss the “double burden” of nutrition-related diseases and highlight the push-and-pull factors - Different approaches to counteract obesity 	DN

Monday, July 13

8:30-10:00	Introduction to Nutrition Epidemiology Food safety challenges in a globalized world	DN
10:30-12:00	<ul style="list-style-type: none"> - Briefly address globalization, trade implications, food safety systems, and the need for intersectional cooperation and whole-food chain approaches, Codex, IHR/Infosan, and complicating factors (climate change, AMR) - Food safety risk communication Food safety risk communication	DN
12:15-13:00	<ul style="list-style-type: none"> - Food safety information/communication to the public and target groups - General communication issues that arise in times of food safety emergencies/crises 	DN

Tuesday, July 14

8:30-10:00	Foodborne diseases in the 21 Century <ul style="list-style-type: none"> - An overview of dynamics of infectious foodborne illness including: industrialization, globalization, natural disasters, antimicrobial resistance pressures, population mobility, aging, and dietary changes, as well as the implications for surveillance of foodborne diseases. 	JS
10:30-11:15	Salmonella as a model of a perennially emerging foodborne pathogen Antimicrobial resistance from a food safety perspective <ul style="list-style-type: none"> - The public health consequence of antibiotic use in food animals 	JS
11:30-13:00	<ul style="list-style-type: none"> - Main pathogens concerned - Need for surveillance of resistance and antibiotic usage - Need for regulation and enforcement of antibiotic use in food animals Examples of the impact of modification of antimicrobial use on antimicrobial resistance trends	JS

Wednesday, July 15

Specialized surveillance systems:

8:30-10:00	<ul style="list-style-type: none"> 1) FoodNet: a sentinel foodborne disease surveillance system designed to calculate the burden of diseases and incorporating applied research 2) PulseNet: an international molecular epidemiology foodborne disease surveillance system 	JS
10:30-11:15	<p>Surveillance of foodborne diseases</p> <ul style="list-style-type: none"> - Israel and the Middle East Consortium for Infectious Diseases Surveillance (MECIDS) 	DC
11:30-13:00	<p>E. coli O157:H7 as a model of an emerging foodborne pathogen</p> <p>Discussion of published papers on foodborne disease surveillance (Journal club)</p>	JS

Thursday, July 16

8:30-10:00	Chemical risks to food safety	TB
10:30-12:00	Foodborne disease outbreak investigation methods: Special adaptations of standard field epidemiology techniques	JS
12:15-13:00	<p>Discussion of scientific literature and publish papers on foodborne disease outbreak investigation</p> <p>Course wrap-up</p>	JS

Friday, July 17th

9:00-11:00 Final Exam (Room 200, Sackler Faculty of Medicine)