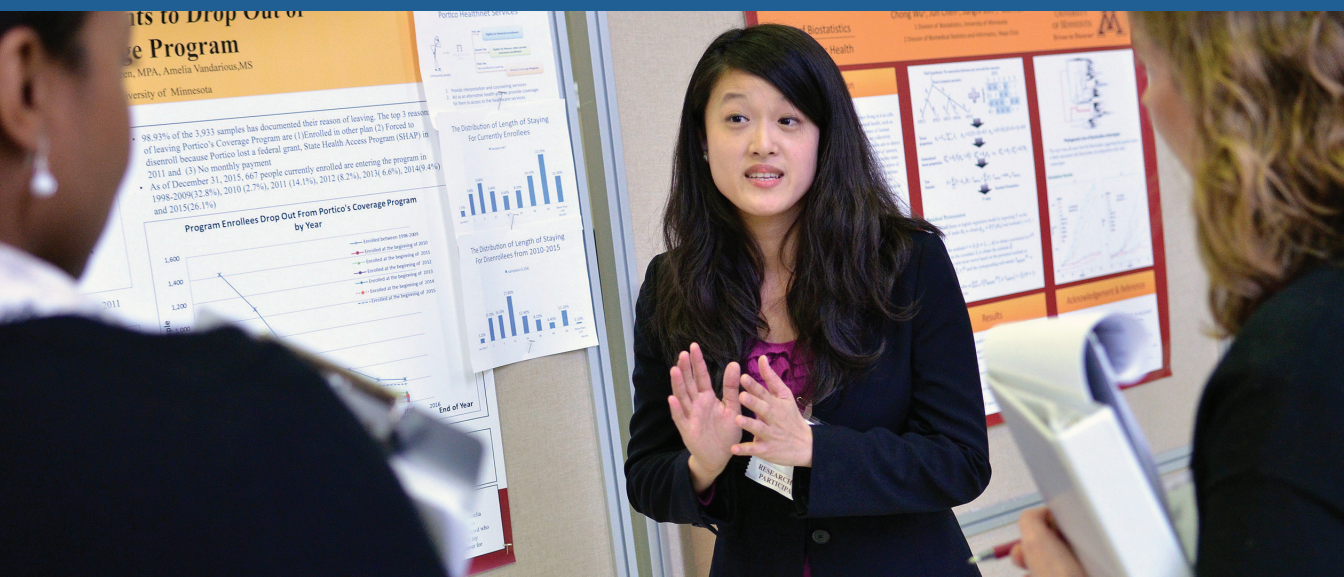




RESEARCH DAY



Wednesday, April 5, 2017
McNamara Alumni Center, Great Hall

**SCHOOL OF
PUBLIC HEALTH**
UNIVERSITY OF MINNESOTA

PROGRAM SCHEDULE

11:30 A.M. CHECK-IN (LOCATED IN THE MINNESOTA ROOM)

Posters available for pre-viewing

12:00 P.M. WELCOME

John R. Finnegan Jr.
Dean, School of Public Health

12:15 P.M. CONCURRENT SESSION 1 PODIUM PRESENTATIONS

Division of Health Policy & Management

Room Location: Ski-U-Mah

#TinyBlackLives Matter: Exploring Ways to Disrupt the Pathway Between Racism and Adverse Birth Outcomes

Rachel Hardeman, PhD, MPH, Assistant Professor

Opportunity Cost of Non-Rigorous or Non-Transferable Research: Implications for Cost-Effectiveness Analysis

Fernando Alarid-Escudero, PhD(c), BSc, MS, Fulbright Scholar

Division of Epidemiology and Community Health

Room Location: Memorial Hall (main atrium)

The Milk of Paradise? Maternal Obesity, Breast Milk Quality, and Infant Growth

Ellen W. Demerath, PhD, Professor

Got Milk: Potential Physiological Factors Influencing Low Breastmilk Supply in Obese Mothers

Regina Marino, MS

12:45 P.M. STUDENT POSTER SESSION & POSTER JUDGING SESSION

2:30 P.M. CONCURRENT SESSION 2 PODIUM PRESENTATIONS

Division of Biostatistics

Room Location: Ski-U-Mah

The Role of Biostatistics in Tobacco Regulatory Science

Joseph Koopmeiners, PhD, Associate Professor

Estimating the Causal Effect of Nicotine Reduction on Cigarette Use and Dependence

Jeffrey Boatman, PhD(c)

Room Location: Memorial Hall (main atrium)

Division of Environmental Health Sciences

Ticked Off: Public Health Entomology in the Upper Midwest

Jonathan D. Oliver, PhD, Assistant Professor

Examining Effects of Food Safety Cultural Norms on Food Inspections:

The Case for Somali Restaurateurs

Farhiya Farah, PhD(c), MPH

3:00 P.M. AWARDS PRESENTATION

4:00 P.M. CLOSING RECEPTION

STUDENT POSTERS

1. Kathryn Hiolski

Behavioral Indicators of Physical Health among Youth with Incarcerated Parents

COMMUNITY HEALTH EDUCATION, MPH

2. Prabha Atluri

Estimating Illnesses Averted: A Comparative Study of the Recall Method

ENVIRONMENTAL HEALTH, MPH

3. Andre Montoya-Barthelemy

The Occupational Safety of Inmate Workers

ENVIRONMENTAL HEALTH, MPH

4. Yoon-Sung (Teddy) Nam

Application of Design Thinking in the Field of Public Health

ENVIRONMENTAL HEALTH, MPH

5. Oluwaseun Fashanu

Galectin-3 and Venous Thromboembolism Incidence: The Atherosclerosis Risk in Communities Study

EPIDEMIOLOGY, MPH

6. Jennifer Grimm

Development of a Non-invasive Method for the Measurement of Epstein-Barr Virus Antibodies

EPIDEMIOLOGY, MPH

7. Subin Jang

Racial and Ethnicity Variation in the Incidence of Cervical Pre-Cancer in the Alameda County, CA, 2008-2015

EPIDEMIOLOGY, MPH

8. Anna Lintelmann

Adherence to the WCRF/AICR Cancer Prevention Guidelines and Colorectal Cancer Incidence

EPIDEMIOLOGY, MPH

9. Jacqueline Logan

What Have You HEARD about the HERD? An Influenza Vaccine and Herd Immunity Study

EPIDEMIOLOGY, MPH

10. Olasunmbo Okedele

Sero-Positivity to Cytomegalovirus and Cancer-Related Mortality in the United States

EPIDEMIOLOGY, MPH

11. Terra Wiens

Clinical Factors and Antibiotic Use During Campylobacter Enteritis: Association with Post-Infection

EPIDEMIOLOGY, MPH

12. April Wilhelm

Mental Health in Somali Youth: The Role of Protective Factors in Preventing Depressive Symptoms, su

MATERNAL AND CHILD HEALTH, MPH

13. Margaret Horvath

Investigating Hospice Utilization for Oncology Patients Using a Claims Database

PUBLIC HEALTH, MPH

14. Christopher Boll

Voiceless: Unmet Needs for Older Korean Americans Receiving Long-Term Services and Support in MN

PUBLIC HEALTH ADMINISTRATION, MPH

15. Anna Irestone

Healthy Restaurant Initiatives: Recipe for Success

PUBLIC HEALTH ADMINISTRATION, MPH

16. Alla Kazi

Older Adults Homelessness in the Metro Minnesota and Barriers to Re-Housing

PUBLIC HEALTH ADMINISTRATION, MPH

17. Chardae Kimber

Minnesota in the Wake of the ACA: A Performance Based Budget of Public Health Expenditures

PUBLIC HEALTH ADMINISTRATION, MPH

18. Gabriela Lalalde

Dentists as HPV Vaccinators: What Do Parents Think?

PUBLIC HEALTH ADMINISTRATION, MPH

19. Alana Lerer

Evaluation of Community-Driven Approach to Reducing Sugary Drinks Consumption in Minneapolis, MN

PUBLIC HEALTH ADMINISTRATION, MPH

20. Valentina Lin

Community Health Center Governance Academy: Governing Board Video Series

PUBLIC HEALTH ADMINISTRATION, MPH

21. Makshita Luthra

Variation in Opioid Utilization Practices in Orthopaedic Patients in Hospitals of United States

PUBLIC HEALTH ADMINISTRATION, MPH

22. Jessica Obidike

Colorectal Cancer Awareness for Public Health Prevention

PUBLIC HEALTH ADMINISTRATION, MPH

23. Olamide Ojo-Fati

Reducing the Harm of Smoking among Homeless Smokers in a Randomized Controlled Trial Targeting Cess

PUBLIC HEALTH ADMINISTRATION, MPH

24. Frena Wagey

Barriers to Primary Care Services for Medicaid Enrolled Children and Families

PUBLIC HEALTH ADMINISTRATION, MPH

25. Nicholas Solberg

Relationships and Clinical Implications of Parent Depression on Adolescent Growth

PUBLIC HEALTH INFORMATICS, MPH

26. Patrick Williams

Qualitative Review of Perceived Health Challenges Facing Women and Men in Kolkata, India

PUBLIC HEALTH INFORMATICS, MPH

27. Bin Guo

Adaptive Association Test of Multiple Traits using GWAS Summary Data

BIostatISTICS, MS

28. Kristine Kubisiak

Penalized Models on MRI Contrasts to Detect Abnormalities in White Matter of Human Subjects with MS

BIostatISTICS, MS

29. Brian Hart

A Longitudinal Model for Functional Connectivity Using fMRI

BIostatISTICS, PHD

30. Jin Jin

Detection of Prostate Cancer with mpMRI Bayesian Models Utilizing the Structure of the Prostate

BIostatISTICS, PHD

31. Qinshu Lian

A Bayesian Approach for Correcting Exposure Misclassification in Meta-Analysis

BIostatISTICS, PHD

32. Lifeng Lin

Quantifying Publication Bias in Meta-Analysis

BIostatISTICS, PHD

33. Tianmeng Lyu

Additive Rate Model for Recurrent Event Data with Intermittently Observed Time-Dependent Covariates

BIostatISTICS, PHD

34. Jun Young Park

A Gene-Level Association Test in Generalized Linear Mixed Models with Application to Family Studies

BIostatISTICS, PHD

35. Ross Peterson

Analysis of an Ordinal Endpoint for Use in Evaluating Treatments for Severe Influenza Requiring Hospitalization

BIostatISTICS, PHD

36. Patrick Schnell

Semiparametric Benefiting Subgroup Identification

BIostatISTICS, PHD

37. Chong Wu

An Adaptive Test on High-Dimensional Parameters in Generalized Linear Models

BIostatISTICS, PHD

38. Jincheng Zhou

Random Effects Models for Meta-Analysis of Causal Effects in Randomized Trials with Noncompliance

BIostatISTICS, PHD

39. Navneet Kaur Baidwan

Stressors at Work and Work-Related Injuries: Implication for the Aging United States Workforce

ENVIRONMENTAL HEALTH, PHD

40. Ashley Hernandez

The Association of PM2.5 and Ozone with Diabetes Prevalence in the United States, 2002-2008

ENVIRONMENTAL HEALTH, PHD

41. Adam Schwartz

Stress Outcomes in the Safe Worker Ergonomic Exposure Project (SWEEP) Study

ENVIRONMENTAL HEALTH, PHD

42. Jonathan Miller

Screen-Time, Physical Activity and BMI: Confounding by Socio-Economic Status Among Young Adults

EPIDEMIOLOGY, PHD

43. Cynthia Yoon

Questionnaire-Based Problematic Relationship to Eating and Food with 25-year Body Mass Index

EPIDEMIOLOGY, PHD

44. Manami Bhattacharya

Measuring How Well Physicians Know Their Panels and are Prepared to Work with Diverse Populations

HEALTH SERVICES RESEARCH POLICY AND ADMINISTRATION, PHD

45. Colleen Longacre

Results from a Household Survey of Families Served by Jan Seva School in Kolkata, India

HEALTH SERVICES RESEARCH POLICY AND ADMINISTRATION, PHD

PODIUM PRESENTATIONS

Division of Biostatistics



The Role of Biostatistics in Tobacco Regulatory Science

Joseph Koopmeiners, PhD, Associate Professor

Smoking remains the leading cause of preventable death in the United States and is responsible for 480,000 deaths annually. In 2009, Congress passed the Family Smoking Prevention and Tobacco Control Act, which gave the FDA the authority to regulate the content, marketing, and sale of tobacco products. Over the last eight years, tobacco regulatory scientists have devoted substantial time and energy to investigate potential regulatory strategies and their impact on public health. In this talk, Dr. Koopmeiners will discuss the role that statistical methods research plays in identifying regulatory strategies that will have the biggest impact on public health.

Dr. Joseph Koopmeiners, is an associate professor in the Division of Biostatistics and faculty statistician in the Biostatistics and Bioinformatics Core of the Masonic Cancer Center. He received his PhD in biostatistics from the University of Washington in 2009. His research interests include Bayesian methods for clinical trials with applications to cancer treatment and prevention and the statistical validation of biomarkers for cancer diagnosis and prognosis.



Estimating the Causal Effect of Nicotine Reduction on Cigarette Use and Dependence

Jeffrey Boatman

Nicotine reduction has been proposed as a regulatory strategy to limit the public health impact of smoking. In a recent randomized clinical trial, participants assigned to smoke very low nicotine content (VLNC) cigarettes smoked fewer cigarettes per day than participants smoking their usual brand. Interpreting these results is challenging because many participants in the VLNC arm continued to smoke some usual brand cigarettes. In this talk, Jeffrey Boatman will describe a novel statistical approach for estimating the effect of VLNC cigarettes on smoking if participants were to smoke only VLNC cigarettes that uses biomarkers of nicotine exposure to identify subjects that complied with the intervention.

Jeffrey Boatman is a PhD candidate in the Division of Biostatistics. His research interests include causal inference, clinical trials, and statistical computing.

PODIUM PRESENTATIONS

Division of Environmental Health Sciences



Ticked Off: Public Health Entomology in the Upper Midwest

Jonathan Oliver, PhD, Assistant Professor

Human interactions with the forests of the Upper Midwest bring more and more people into contact with arthropod parasites and pathogens. Previously unknown tick-borne pathogens appear and represent emerging disease threats. In this session, Dr. Oliver will describe current arthropod-borne disease challenges facing the region, and describe some of his research into tick-borne diseases.

Dr. Jonathan Oliver, is an entomologist and vector borne disease specialist who studies the interaction of pathogenic bacteria with their arthropod vectors. The diseases and vectors being studied by Dr. Oliver are of particular public health importance in Minnesota and throughout the world.



Examining Effects of Food Safety Cultural Norms on Food Inspections: The Case for Somali Restaurateurs

Farhiya M. Farah

Researchers have increasingly found food safety concerns with ethnic-owned restaurants yet ethnic food consumption is on the rise. The earliest Somali immigrants to the Twin Cities is now approaching 20 years residency, with the earliest food establishments operated and owned by Somalis also approaching 20 years in business. In this session, Farhiya Farah will discuss her study that analyzes food safety cultural norms data obtained from focus group studies that mapped out these norms against food safety laws and examined the relationship between these cultural norms with inspections by looking at seven years of violation data from 62 independently owned and operated Somali restaurants. She will also share the proposed policy recommendations aimed at overcoming these challenges.

Farhiya M. Farah is a PhD candidate from the School of Public Health Division of Environmental Health Sciences. She is also the head and founder of GlobeGlow Consulting and Research, Inc. which focuses on applied environmental health projects and community based participatory research work. Farah received her Masters of Public Health from University of Minnesota and passionately promotes health equity and inclusivity in public health policies and practices.

PODIUM PRESENTATIONS

Division of Epidemiology & Community Health



The Milk of Paradise? Maternal Obesity, Breast Milk Quality and Infant Growth

Ellen Demerath, PhD, Professor

Pre-pregnancy obesity is increasing in the United States and there is a known link between maternal obesity during pregnancy and increased obesity risk in children. In this session, Dr. Demerath will discuss new data from her NIH-funded study on the understudied relationship of maternal obesity with breastmilk quality and quantity and its potential impacts on infant growth.

Dr. Ellen Demerath's research focuses on the developmental origins of early life risk factors for chronic disease, with an emphasis on obesity, body composition, and cardiovascular disease risk factors in infancy and childhood.



Got Milk: Potential Physiological Factors Influencing Low Breastmilk Supply in Obese Mothers

Regina Marino

It has been well established that obese mothers breastfeed their infants for a shorter period of time than normal weight mothers. This is a public health issue because maternal obesity is highly prevalent and breastfeeding for at least six months provides numerous health benefits to the growing child. Obese mothers report low milk supply as one of the main reasons for ending breastfeeding early, but lactation experts typically assume that this perception is rooted more in behavior (e.g., early supplementation with formula leading to lower milk supply) than in lower physiological capacity to produce milk. In this talk, Regina Marino will use data from the MILK study of exclusively breastfeeding women to show that maternal obesity, and higher pregnancy glycemia, are associated with lower milk supply. These results will be discussed in light of the existing literature, mostly from animal studies.

Regina Marino is a first year graduate student at the University of Minnesota pursuing a Master of Public Health (MPH) in Public Health Nutrition, with an emphasis in nutritional epidemiology. She received a Bachelor of Science degree in Nutrition Science from the University of California, Davis. Currently, Marino works as a graduate research assistant on the MILK Study under Dr. Ellen Demerath.

PODIUM PRESENTATIONS

Division of Health Policy & Management



#TinyBlackLives Matter: Exploring Ways to Disrupt the Pathway Between Racism and Adverse Birth Outcomes

Rachel Hardeman, PhD, MPH, Assistant Professor

The pathways between racism, the social determinants of health and birth outcomes have contributed to pervasive racial and ethnic disparities in maternal and child health. In this session, Dr. Hardeman will explore ways to disrupt this pathway by discussing the health care professional's role in dismantling structural racism; diversifying the doula work force; and the provision of culturally-centered prenatal care.

Dr. Rachel Hardeman, is a health equity researcher with a focus on the role of the clinician, health care delivery systems and the policy environment in reducing disparities in outcomes and quality of health care. Her research examines the ways in which aspects of race (e.g. implicit and explicit bias, discrimination, structural racism and the white racial frame) affect health care delivery, the clinician-patient encounter and health outcomes. She has a particular interest and focus on prenatal care delivery and persistent disparate birth outcomes for Black women.



Opportunity Cost of Non-Rigorous & Non-Transferable Research: Implications for Cost-Effectiveness Analysis

Fernando Alarid Escudero

Evidence used in cost-effectiveness analysis (CEA) is often obtained from empirical studies, which may not be rigorous or directly relevant to the CEA's setting. Fernando Alarid Escudero, in conjunction with colleagues from Brown University and University of Pittsburgh, have proposed an approach to quantify the opportunity cost of biased research. In this session, he will demonstrate their approach applied to a CEA that informed antenatal care policies in the United Kingdom.

Fernando Alarid Escudero is a PhD candidate and a Fulbright scholar at the School of Public Health, Division of Health Policy and Management. He works as a Graduate Research Assistant on the CISNET project: Modeling Effective Health Policies for Colorectal Cancer, and the CERVICCS project: Comparative Effectiveness to define the Reasonable range of options for Cervical Cancer Screening (CERVICCS). He holds a BSc in Biomedical Engineering from the Metropolitan Autonomous University (UAM) and a MS in Economics from the Center for Research and Teaching in Economics (CIDE), both in Mexico City. His focus is on integrating methods of mathematical and statistical modeling in decision and cost-effectiveness analyses.

AWARDS

Student Poster Awards

Doctoral and Master's Student Posters

The *Best Student Poster Awards* recognize student poster presentations, in correlation with their poster abstracts, that have been reviewed and rated by a panel of judges on the following merits: topic prominence; presentation objectives; purpose; practice impact; academic impact; originality; tone; and overall communication of scope, context and rationale.

First place award recipients in the Doctoral and Master's student categories will receive an engraved plaque, their poster prominently displayed outside of the School of Public Health Office of the Dean (Mayo A302), and an opportunity to "Lunch with the Deans" at the Campus Club. Second and third place award recipients will receive a plaque honoring their recognition.

People's Choice Award

The People's Choice Award recognizes the research project voted as the audience favorite. The recipient will receive a certificate honoring their recognition.

SPH Outstanding Faculty Achievement Awards

Leonard M. Schuman Award for Excellence in Teaching: The school's highest honor, recognizes exceptional teachers who challenge students with articulate presentations and thought-provoking analyses.

The **Charles N. Hewitt Creative Teaching Award:** Recognizes SPH faculty who have made an outstanding contribution in special areas of public health education.

The **School of Public Health Excellence in Advising Award:** Recognizes SPH faculty who are particularly outstanding in their roles as academic, field experience, or project/thesis advisors.

ACKNOWLEDGEMENTS

Thank you to our poster judges:

MPH & MS Awards Judging Committee

- Alvine Laure Ekame, MPH '13 (performance improvement)
- Mark Fiecas, PhD, Assistant Professor
Division of Biostatistics
- Chelsea Georgesen, MPH '12 (public health administration)
- Brittany Gregoric, MPH '16 (public health nutrition)
- Susan Mason, PhD, Assistant Professor
Division of Epidemiology & Community Health
- Katie White, Ed, MBA, Assistant Professor
Division of Health Policy & Management
- Lin Zhang, PhD, Assistant Professor
Division of Biostatistics

PhD Awards Judging Committee

- Nicole Basta, PhD, MPhil, Assistant Professor
Division of Epidemiology & Community Health
- Mary Butler, PhD, Assistant Professor
Division of Health Policy & Management
(Research Committee member)
- Timothy Donakowski, MPH '77 (environmental health sciences)
- Sarah Friend, MPH '03 (public health nutrition)
- Weihua Guan, PhD, Associate Professor
Division of Biostatistics (Research Committee member)
- Lyn Steffan, PhD, MPH, RD, Associate Professor
Division of Epidemiology & Community Health (Research Committee member)

A big thank you to all of our volunteers

School of Public Health Research Day would not be possible without the work of our dedicated volunteers. Volunteers have helped out in a great many ways; assisting our students with posters, serving as session moderators, liaising with attendees on our behalf, and many other tasks. Because of this invaluable contribution, we are eager to say a big public **“Thank you!”**



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