Health and Medical Geography:
Highlights of Research, Training and Practice

XVth International Medical Geography Symposium

Department of Geography

Michigan State University

East Lansing, Michigan, United States

July 7-12, 2013

PROGRAM AND ABSTRACTS

Photo Credit: Lake Michigan Sand Dunes, Michigan, U.S.A. (2007)
Courtesy of Alan F. Arbogast

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Hosted By:

The Department of Geography
Michigan State University
East Lansing, Michigan, U.S.A.

Organization Committee:

Sue C. Grady (Chair), Libbey Kutch (Coordinator), Alan Arbogast, Fatoumata B. Barry, Joe T. Darden, Richard Groop, Keumseok Koh, Sara McLafferty, Joseph P. Messina, Bruce Pigozzi, Mark W. Rosenberg, Kathi Wilson, Leo C. Zulu

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PROGRAM AND ABSTRACTS

Session 15: ***Aging Spaces (cont')*** **[Tuesday]**

11:50—12:10pm Neng Wan (University of Nebraska Medical Center, U.S.A.), Ge Lin
Application of Mobile Technologies In Aging Research: A Case Study Of Life-Space

Session 16: ***Climate Change and Health***

10:30—10:50am Room 106 Chair: Korine N. Kolivaras

10:30—10:50am Michael J. Allen (Kent State University, U.S.A.)
Seasons in Climate-Health Research: A Critical Evaluation of Delineation Methods

10:50—11:10am Iván J. Ramírez (The New School, U.S.A.), Sue C. Grady, Michael H. Glantz
El Niño and the Cholera Epidemic in Peru: A New Paradigm?

11:10—11:30am Elisabete Freire (University of Lisbon, Portugal), Paula Santana, Ricardo Almendra, João Vasconcelos
Excess Winter Mortality Patterns and Regional Differences in Portugal

11:30—11:50am Yolanda J. McDonald (Texas A&M University, U.S.A.), Sara E. Grineski, Timothy W. Collins, Young-An Kim
The Incidence of Diseases Associated with Climate Change in Texas, 2008-2010: An Examination of Economic Impacts and Socio-Spatial Disparities

11:50—12:10am Allison Bradshaw (University of Connecticut, U.S.A.)
A Spatial Analysis of West Nile Virus in Texas, 2012.

Lunch (John Hunter Recognition) *12:10—1:00pm* *Big Ten Room B, C*

Health & Place Editorial Board Meeting *12:10—1:00pm* *VISTA Room*

Session 17: ***Food Systems***

1:00—3:00pm Room 103AB Chair: Steven Cummins

1:00—1:20pm Denise Goodwin (London School of Hygiene & Tropical Medicine, United Kingdom), Steven Cummins, Elena Sautkina, Andy Jones, David Ogilvie, Mark Petticrew, Martin White
Is It Possible to Implement Complex Systems Approaches to Obesity Prevention? Evidence from the English Healthy Towns Programme

1:20—1:40pm Ellen Flint (London School of Hygiene & Tropical Medicine, United Kingdom), Steven Cummins, Stephen A. Matthews
Do Supermarket Interventions Improve Food Access, Fruit and Vegetable Intake and BMI? Evaluation of the Philadelphia Fresh Food Financing Initiative

Excess Winter Mortality Patterns and Regional Differences in Portugal

Elisabete Freire (University of Lisbon, Portugal), *Paula Santana, Ricardo Almendra, João Vasconcelos*

The mortality fluctuation over the year is associated with increases in both the warm and cold seasons. Portugal is often described as the European country with highest excess winter mortality. The main aim of this study is to identify the seasonal patterns of mortality within Portugal and to assess their geography. The chi-square goodness of fit test was used to identify the existence of a significant seasonal increase in mortality by cause of death. The number of excess winter deaths and the excess winter death index were calculated to measure the winter death toll. The main results shown important seasonal mortality increases in almost all causes of death, the mortality due to cardiovascular and respiratory diseases are the main responsible for the winter burden. The number of excess winter death is related to the overall incidence of the disease and their determinants, but the seasonal increase is related to other socio-economic and behavior factors.

The Incidence of Diseases Associated with Climate Change in Texas, 2008-2010: An Examination of Economic Impacts and Socio-Spatial Disparities

Yolanda J. McDonal (Texas A&M University, U.S.A.), Sara E. Grineski, Timothy W. Collins, Young-An Kim

Recently scholars have started to explore the human health effects of climate change, even though there is not a monocausal link between climate change and human health. Others have exposed that a socio-economic phenomenon called the “climate gap” exists whereby poor and minority communities are disproportionately and unequally impacted by climate change, which may extend to health impacts. It has been found that climate change exacerbates the lack of access to preventive health care that is faced by many who live at or below poverty. While climate change is global, researchers are considering health impacts at more finite scales as we do here by examining state and county-level statistics in Texas. Using the 2008 to 2010 Texas Hospital Inpatient Discharge Public Use Data Files we will quantify the numbers of cases of hospitalizations for climate change-related diseases in seven categories: cardiovascular, cerebrovascular, respiratory, heat, vector-borne, water-borne, and gastrointestinal; assess the economic impact, based on hospitalization dollar charges for climate change-related diseases; and determine if there are social (based on sex, race and insurance status) and spatial disparities in these diseases using Wilcoxon signed-rank tests, relative risk ratios, and cluster analysis. The findings from this study will serve as a baseline for possible impacts of climate change on human health and will help to establish future research priorities in this area.