

# T17aP14 / Understanding Population Health Policies and their Impacts: Comparative Perspectives

**Topic :** T17a / Sectorial Policy - Health

**Chair :** John Hoornbeek (Kent State University)

**Second Chair :** Patrik Marier (Concordia University)

## GENERAL OBJECTIVES, RESEARCH QUESTIONS AND SCIENTIFIC RELEVANCE

Across the globe, nations and the sub-national jurisdictions are facing growing challenges in fostering the health and well-being of their populations. Medical advances yield both improved health care opportunities and upward pressures on health costs. The transformation of an increasing number of human conditions into treatable diseases (Conrad, 2008) has also contributed to these rising costs. Resource limitations and several decades of decentralizing new public management reforms yield challenges for government efforts to address population health problems and concerns.

There have been multiple efforts to study health policies and outcomes from cross-national perspectives, and they have often focused on healthcare policies and efforts to reform them (Miaoni and Marmor, 2015; Schoen et al, 2010; Reid, 2009). While these studies contribute to our understanding of how nations manage illness, they are arguably focused disproportionately on treating illnesses that have already developed, rather than preventing disease and enhancing the long term health and well-being of populations. This is notable, for example, in social services and in interventions with older adults where biomedical interventions are frequently encouraged and privileged over social ones (Estes and Binney, 1989; Binney, Estes and Ingram, 1990; Kaufman, Shim and Russ, 2004).

This panel seeks to instigate additional comparative research and analysis on the long term health and well-being of populations and the policies that affect it. The focus is on ways in which governments seek to improve the health and well-being of their populations, as well as on the policy impacts and outcomes that flow from these efforts. While healthcare policy reform efforts are included in this focus, the hope and intent is that the papers contributed to this panel will focus as much or more on preventively-oriented health and social policies as on healthcare. In this context, we draw attention to policies relating to the “public health system” (Institute of Medicine, 2003), a phrase which generally refers to multi-organizational efforts that seek to enhance the health status and well-being of broad groups of people and populations.

Within this “public health system” lie efforts in a host of different specific policy areas. These include clinically oriented policies and services providing for vaccinations and immunizations, as well as policies targeted toward specific populations (low income persons, women, older adults, etc.). Behavioral health policies are also included, as they seek to enable and encourage individuals and populations to make behavioral choices that enhance long term health and well-being (quit smoking, safe sex, good nutrition, etc.). Human service and income redistribution policies may also seek to pursue broader public health and well-being related goals, as they seek to address underlying social conditions of health and well-being. Additionally, environmental health policies seek to protect ecosystems and reduce health threats associated with environmental degradation, poor sanitation, and environmental pollutants. Taken together, policies in these and other areas comprise national and sub-national “public health systems” that may be characterized by variable levels of effectiveness and success in enhancing the health and well-being of the populations they serve.

## CALL FOR PAPERS

Papers suitable for this panel should be comparative in nature, and should focus on ways in which policies of national and/or sub-national jurisdictions relate to the health and well-being of the populations they serve. We also welcome papers comparing different types of policies. Papers may focus on the ways in which public health policies are developed, organized, and/or administered to populations and/or sub-populations. Comparative analyses of public health policy-making structures and processes, as well as their impacts on the health of populations and sub-populations, are also encouraged.

The program and policy areas within the scope of this solicitation are multiple, and they include a variety of health, environmental, and social programs designed to enhance population health. Areas of focus might

include behavioral health programs relating to risky behaviors such as substance use and abuse, nutrition and obesity, and control of weapons and firearms, to name just a few. In the environmental health arena, analyses may relate to water and sanitation, air quality, and other environmental risks that may affect the health and well-being of populations and sub-populations. Human service programs designed to address the social dimensions of health and well-being, such as social service programs which enhance access to health services, enable illness prevention, and/or improve long term life prospects are also welcomed. In addition, studies focusing in comparative fashion on government interventions and the health of particular sub-populations, such as older adults, children, women, minorities and those with low incomes are also encouraged.

Collectively, an underlying theme of the papers presented in this panel is envisioned to be the varying ways in which public policies relating to population health and well-being are developed, organized, and administered across societies and jurisdictions, and the impacts of these public policies on the populations they serve.

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## Session 1 Understanding Population Characteristics and their Impacts on Health and Health Policy

Friday, June 30th 10:30 to 12:30 (Block B 3 - 6 )

### Discussants

John Hoornbeek (Kent State University)

### Autonomy and Public Policy: Moving Beyond Assessing Decline in Health

Patrik Marier (Concordia University)

Daniel Dickson (Concordia University)

Anne-Sophie Dube (Université de Montréal)

Norma Gilbert (CREGES/CIUSSS Centre de ouest de l)

This paper presents an in-depth analysis of the conceptualization of autonomy, as it pertains to older adults. In public policy, the concept of autonomy plays a prominent role among health care and social service professionals; autonomy questionnaires are ubiquitous and they seek primarily to measure physical and cognitive decline centered frequently on the so-called activities of daily living (ADL). This popular notion of autonomy fails to capture the broader use of the concept in social policy and it can result in various forms of exclusions. For example, autonomy has been conceptualized as free time, as the ability to maintain an autonomous household, and as the ways in which one can rely on social services on a voluntary basis. As importantly, the social gerontology literature has strongly criticized the lack of social considerations and the omnipresence of biomedical tools to address the needs of seniors, even though social elements play a large role in enhancing the aging experience.

This paper has two objectives. First, it analyses the extent to which autonomy is employed differently across industrialized countries via a comparative analysis of autonomy questionnaires and their administrators in industrialized countries is performed. Second, this paper studies the extent to which older adults present a different and more nuanced understanding of autonomy based on focus group sessions with older adults in their local retiree associations and in representative organizations in Québec (Canada). The later part of the paper analyses the importance of the gap between these potentially divergent understandings of autonomy (i.e. policy intent and seniors' understanding).

### Understanding disparities in avoidable mortality to improve health care systems: A cohort study of one million individuals

Jung Min Park (Seoul National University)

Social and economic inequalities are reflected in differential mortality. Avoidable mortality is a useful indicator to assess health inequalities between population groups and geographic regions and to measure disparities in health care and health system performance. Avoidable mortality is all deaths that could be averted through effective prevention and/or adequate health care. This prospective cohort study aims to investigate whether and to what extent the prevalence, timing and risk of avoidable death differ by demographic, socioeconomic, clinical, and disability-related characteristics.

This is a 10-year follow-up study from 2003 to 2012 of a representative sample of over one million individuals from the general population in South Korea. Data came from the National Health Information

Database that covers approximately 99% of the nation's residents. Causes of death were coded by the International Classification of Diseases-10. Avoidable mortality is categorized into preventable and amenable: Preventable mortality refers to deaths that could be avoided by public health interventions; Amenable mortality refers to deaths that could be avoided through good quality health care. Cox regression, a proportional hazard model, was used to estimate the hazard ratio of mortality by population characteristics.

Risk of avoidable mortality was higher for individuals who are male, have low-income, have a disability, and live in rural areas. Being in a low-income group nearly doubled the risk of avoidable mortality compared to being in a high-income group ( $HR=1.84$ ). The risk of avoidable mortality was also considerably high for males ( $HR=2.71$ ) and those with disabilities ( $HR=2.36$ ). Preventable mortality was particularly high among males. Amenable mortality was much greater for people with disability.

This large-scale longitudinal study tells us that the survival chance of people and the kind of death they encounter differ by their socioeconomic and demographic characteristics and that there are also disparities in mortality preventable by public health interventions and treatable through timely and adequate health care.

### **Mediating and moderating effects of assets between health problems and livelihood outcomes of low-income population in Singapore**

Irene Y.H. Ng (National University of Singapore)

Angeline Lim (National University of Singapore)

What happens when a low-income individual is both in poor health and in debt? What are the policies in place to help individuals with low income and poor health?

This paper aims to understand the mediating effects of assets on the relationship between poor health and livelihood outcomes among low-income individuals in Singapore. This will allow us to discuss the implications on relevant health and welfare policies.

Adapted from a model by Russell (2005), we study the vulnerability or resilience of poor health, as influenced by various assets in the form of human, physical, financial and social capital (McIntyre & Thiede, 2008). Four measures of livelihood outcomes are used: employment, household income, anxiety and life satisfaction. The four types of capital are represented by education level, housing type, total household arrears and social support.

Data for the paper is extracted from a one-time survey on low-income households with debt conducted by the Social Service Research Center of National University of Singapore. The data analysis is based on a step-wise regression on a sample size of 474 respondents.

Our findings show significant relationships between poor health and all livelihood outcomes. However, while the independent effects of assets on outcomes are significant, there are no mediating effects of assets on livelihood outcomes except in two cases.

First, our findings show that although respondents with poor health are less likely to be employed, individuals with poor health AND household arrears are the more likely to be employed. Given that household arrears among low-income households are mainly for basic necessities such as utilities, rent or mortgage, medical services, and telecommunications, the compounding effects suggest the need for more holistic policy approaches that integrate social welfare, health and employment assistance.

Second, our findings also show that although respondents with poor health are less satisfied with life, individuals with poor health and who own their own homes are more satisfied with life. This finding piques broader perspectives on population health to psychological well-being. In this sphere, non-traditional factors such as home ownership as an asset might offer new areas of exploration to improved population health.

Relevance to panel topic

Discussing the above two findings in Singapore's social welfare and social development policies in context, our paper offers comparative insights on improving population health in a global economy that is seeing widening income gaps and rising costs. The compounding effects of poverty, ill health, and debt, yet the buffer effect of assets, broadens the policy options and boundaries to population health.

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## **The Sustainability of Public Health Policy Reform in the United States: A Comparative Analysis**

John Hoornbeek (Kent State University)

Upon entering office in January of 2017, the 115th Congress of the United States (US) began discussions about the repeal of the Patient Protection and Affordable Care (PPACA), or “Obamacare”. This major health reform law was enacted in 2010, and represented perhaps the most significant piece of public health reform legislation in the US since the passage of the Children’s Health Insurance Program (CHIP) in the 1990’s and the enactment of Medicare and Medicaid in the 1960’s.

To date, the focus of Congress’s discussions concerning the repeal of Obamacare has been on how and when to repeal the PPACA, as well as whether and how to replace it with some other version of healthcare “reform”. These discussions are occurring in spite of the fact that the PPACA law has facilitated the access of millions of Americans to healthcare insurance and its repeal is faced with vehement opposition from outgoing President Obama and his Democratic Party allies in Congress.

This paper seeks to provide insight into these health policy “reform” discussions by comparing the Obamacare reform process to another substantial American public health policy reform – Medicare (and its reform through the Medicare Catastrophic Coverage Act of 1988). Drawing on key concepts associated with the sustainability of broad-based public interest reforms (political structures, the creative destruction of status quo arrangements, and policy feedback, etc.) advanced by Dr. Eric Patashnik (2008), the paper seeks to improve our understanding of the factors affecting the sustainability of policy reform generally, and health policy reform in particular.

The paper will outline Patashnik’s framework for understanding the sustainability of public interest reforms and will assess the design and implementation of the PPACA and key Medicare reform(s) based on that framework. In so doing, it should shed light on current health care reform debates in Washington DC, while also yielding insights that may be of use to other public health related reform efforts.

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## Session 2 Understanding Health Policies, their Origins, and their Impacts

Friday, June 30th 13:45 to 15:45 (Block B 3 - 6 )

### Discussants

Patrik Marier (Concordia University)

### **The Trajectory of Family Planning Programme: A Comparative Study of Maharashtra and Tamil Nadu States of India in the Post-Colonial Period.**

Daksha Parmar (Tata Institute of Social Sciences, Mumbai)

This paper aims to understand the historical evolution of policies of family planning in the states of Maharashtra and Tamil Nadu. The two states have historically been in the forefront of promoting policies of population control in India. The trajectory of programme in Maharashtra and Tamil Nadu has been significantly different. While Maharashtra implemented family planning programmes on 'a war footing' by giving this programme the highest priority, Tamil Nadu encompassed the policy of birth limitation as a part of a comprehensive public health services along with different social welfare measures. It is in this context, that the present paper attempts to explore and understand the variation in the priorities and concerns in the policies of family planning. Based on extensive archival research, government reports and research studies, this paper attempts to understand the factors that led to two different policy alternatives with respect to population limitation. The paper argues that historical factors focusing on improving the status of women and political commitment in implementing social welfare policies plays a significant role in bringing about fertility decline and improved health indicators.

### **Variations in state welfare generosity and birth outcomes in the US: Can it explain our low international infant mortality rankings?**

Ashley Fox (Rockefeller College, University at Albany, State University of New York, State University of New York)

Wenhui Feng (Tufts University)

#### Background:

Large variations in birth outcomes exist across US states, with the highest overall birth complications clustering in the Southeast United States. This study aims to explain this variation with reference to state safety-net generosity (the various laws establishing eligibility, enrollment and value of benefits for welfare programs). US social welfare policy is governed by a labyrinthine set of rules that define program eligibility, enrollment procedures and the cash value of benefits received. Although previous studies have examined the relationship between the ratio of overall social service spending to health care spending on general health outcomes, this is the first study to examine comprehensively the range of different programs that vary across states and their association with maternal and child health outcomes.

#### Methods:

We developed a composite index of four major safety-net programs (TANF, SNAP, Medicaid, UI) with eligibility rules and benefit levels that vary by state between 1996-2012. We compiled data from a number of publicly available data sources as well as primary data collection through Westlaw and the IRS TAXSIM

model. Eligibility rules that make signing up for programs easier and go beyond minimum federal requirements were given points whereas states doing only the minimum required by law were not assigned points and then averaged derive an overall eligibility generosity index. For cash benefit generosity, we modeled benefits based on a notional individual and adjusting for income and FICA tax. Our main outcomes were state preterm birth rate and low/very low birth weight, each of which contribute to infant mortality and morbidity. We tested the contribution of state safety net generosity on birth outcomes using a longitudinal model adjusting for state sociodemographic characteristics (race/ethnicity, median income, poverty, inequality) with state and time fixed effects.

#### Results:

We find that even accounting for a variety of state demographic factors likely affecting birth outcomes, higher state welfare generosity in aggregate and individually predicts improved birth outcomes. Higher scores on all programs except unemployment insurance predict lower rates of low birth weight, very low birth weight and preterm birth.

Conclusions: We found considerable variation in states' safety-net generosity programs and that more generous states predict fewer birth complications over time. Generosity in each programs individually and collectively predict better birth outcomes over time except for unemployment insurance, which is more of a universal policy and less likely to only benefit the least well off.

Implications for Policy/Practice: The study lends support to the growing literature that points to the importance of non-health-related social service spending on population health outcomes. These results can be used as evidence in support of retaining critical social safety nets to protect the most vulnerable segment of the population (infants) in the face of growing austerity including the potential repeal of the Affordable Care Act.

### **Understanding obesity prevention policy decision-making: a case study of Victoria, Australia using political science and complex systems theories**

Brydie Clarke (Deakin University )

Gary Sacks

Boyd Swinburn (University of Auckland)

The health and economic burden of the high prevalence of overweight and obesity warrants comprehensive policy action; however, to date, there has been limited policy progress globally. This study sought to advance obesity prevention policy research and practice by applying theories of the policy process to study decision-making within a multi-level, multi-strategy, obesity prevention initiative implemented in Victoria, Australia. Through analysis of documents, interviews with policy makers and direct observations, this qualitative study aimed to gain a better understanding of the influences on policy decision-making for various obesity prevention policy initiatives including: a social marketing campaign; menu labelling legislation, healthy catering policy and a health promoting organisational framework. Multiple theories of the policy process were used to elucidate a comprehensive understanding of the obesity prevention policy decision-making systems within this context. The results highlighted a number of key influences on policy decision-making including: various stakeholder groups, technical feasibility of policy options, issue and solution framing, and broader socio-political factors. The results also demonstrated how these influences interacted to enable or prohibit the adoption of particular policy initiatives. Drawing on complexity science, the findings were integrated to develop Causal Loop Diagrams (CLDs) of the policy decision-making processes. These CLDs were used to provide insight into the difficulties experienced by policy actors in achieving policy change, as well as to develop a conceptual framework for identifying potential ways to intervene to influence future obesity prevention policy decisions. The findings can inform future advocacy efforts for improving the implementation of obesity prevention policy action.

### **Does prospective payment systems lead to desired health providers' incentives and patients' outcomes? A systematic review of evidence from developing countries**

Si Ying Tan (National University of Singapore)

The reform of provider payment systems in many countries from retrospective to prospective payment has been heralded as the right move to contain cost in the light of rising health expenditures in many countries. However, there are concerns on quality trade-off. The heightened attentions given to prospective payment systems (PPS) reforms and the rise of empirical evidence on PPS interventions among developing countries, in which evaluation efforts have been scarce until recently, suggest a systematic review is

necessary to understand the effects of PPS reforms in developing countries. Systematic search of 14 databases and hand search of health policy journals and grey literatures from October to November 2016 were guided by a set of inclusion and exclusion criteria. Data were extracted based on the Consolidated Health Economics Evaluation Reporting Standards (CHEERS) checklist. Drummond's 10-item checklist for economic evaluation was used to critically appraise the evidence. Risk of bias for each study was also assessed by either Cochrane Collaboration's tool in assessing risk of bias for randomised trials, and ROBINS-I for non-randomised studies. A total of 12 studies reported in China, Thailand and Vietnam were included in this review. Substantial heterogeneity was present in the policy design of PPS across different localities. PPS interventions were found to have reduced health expenditures at both the supply and demand side, length of stay and readmission rates. In addition, PPS generally improved service quality outcomes by reducing likelihood or percentage of physicians prescribing expensive and unnecessary drug and diagnostic procedures. PPS is a promising policy tool for developing countries, especially middle income countries, to achieve reasonable health policy objectives of cost containment without necessarily compromising the quality of care. More evaluations of PPS will need to be conducted in the future in order to broaden the evidence base beyond middle income countries.

Keywords: prospective payment system, developing countries, policy design, provider incentives, patient outcomes