

SESSION 1-5

« Health Inequalities »

Wednesday, September 11th

Room : E 102 à 15h00

Christovam Barcellos

Town : Rio de Janeiro, Brazil

Job Title : No indicated

Company : Fiocruz

Title of the presentation : « Homicides and territorial struggles in the Rio de Janeiro slums »

Abstract :

The escalating violence is usually accounted for by social inequalities in urban areas. However, the role of slums and their influence on violence in the city still needs studies comprising its multiple determinations. Most of the spatial analysis methodologies aim to evaluate the spatial distribution of homicide occurrence, identifying a posteriori its determinants. In this study, on the contrary, the point of departure is the spatial structure of the city, its favelas and main circulation paths, to assess the effect of these spatial objects in the distribution of violence. This study was based on homicide mortality data in Rio de Janeiro during the period of 2006 to 2009, and sought to answer the following questions: Is there a greater risk in living in favelas and its surroundings? Is this risk dependent on the slums' location and their domination by armed groups? Territorial disputes between drug trafficking groups may increase this risk? For this purpose, methods and concepts of geography and ethnography were employed, using the approaches of participant observation, interviews and health secondary data analysis. Inside favelas, homicide mortality rates were equivalent or even lower than the rest of the city. This risk is considerably increased in the favela's surroundings, especially in conflagrated areas. The presence of trafficking crews and turf war placed along the city strategic roads and ports, increases homicide rates and promotes the "ecology of danger" in these areas.

Jens Kandt

Town : London, United Kingdom

Job Title : No indicated

Company : LSE Cities, London School of Economics / Dept. of Geography, University College London

Title of the presentation : « Population health in Hong Kong: exploring geographical variations »

Abstract :

Recent reports by WHO/UN-HABITAT[1] and GRNUHE[2] reveal that pronounced health inequalities continue to persist in cities all over the world. Health inequalities are often studied across defined urban sub-groups, such as income quintiles. While group differentials reveal macro trends and allow for generic between-city comparisons, they do not permit analysis of place effects on health outcomes within cities. Place effects may influence health outcomes at both the individual and the ecological level; depending on local specificity, they may have aggravating or attenuating impacts on health. The research presented in this paper has been carried out at LSE Cities, London School of Economics in collaboration with the Centre of Suicide Research and Prevention at the University of Hong Kong, and investigated links between local area characteristics and health outcomes in Hong Kong. While Hong Kong is known for effective delivery of health care, health inequalities continue to be an important and unexplored public health issue. Utilizing micro data on vital events in conjunction with census information and geospatial data, this analysis focusses on the geographical relationship between social and spatial characteristics of small areas and health outcomes that express cumulative individual disadvantage, such as all-cause premature mortality, pre-mature mortality due to communicable, maternal, perinatal and nutritional conditions (type I cause mortality)[3], pre-mature mortality due to non-communicable diseases (type II) and pre-mature mortality due to injuries (type III). Techniques of advanced spatial analysis (Bayesian models) have been used to explore geographical variations of mortality risk within Hong Kong at the local area level (Hong Kong's so-called tertiary planning units) for the period 2005-2009. So far, this investigation has shown that all types of mortality are inversely associated with wealth and some are inversely related to the incidence of public housing in each local area. An explanation for the latter may be that guaranteed access to housing increases coping capabilities of otherwise disadvantaged individuals. Other variables that are associated with increased risk of mortality are the share of elderly single households and economically inactive persons (excluding senior citizens). Spatial smoothing has been applied to account for income effects and identify areas of increased risk. For most types of mortality, areas in Hong Kong's new towns (New Territories) exhibited increased risk that cannot be fully explained by economic deprivation. This may be a reflection of poorer access to services in the New Territories, but this hypothesis will be tested in the upcoming phase of the analysis with recently acquired data on access to health care, community services and

recreation. A full cross-sectional analysis will be carried out within the next few months with the objective to discuss how geographical variations of mortality risk can be contextualised within the social and urban environment. Being unequal and extremely dense, Hong Kong's proximity of rich and poor constitutes an unusual socio-spatial configuration that has so far coincided with little spatial patterning of disease risk. This is in contrast to the situation in many other cities that are marked by large-scale trends of segregation and disease burden, and hence the case of Hong Kong may be useful to reflect across cities on the differing challenges of tackling health inequalities as they appear alongside specific underlying socio-spatial conditions and levels of service. [1] WHO and UN-HABITAT [2010]. Hidden Cities. Unmasking and Overcoming Health Inequities in Urban Settings. Kobe, Japan: WHO Library Cataloguing-in-Publication Data. [2] Global Research Network on Urban Health Equity (GRNUHE) [2010] Improving urban health equity through action on the social and environmental determinants of health. Final report of the Global Research Network on Urban Health Equity, London. [3] Classification according to WHO [2008] The global burden of disease: 2004 update, World Health Organization, Geneva, CH.

Antoine Lewin :

Town : Paris, France

Job : Geographer

Company : INSERM U707 - UPMC

Title of the presentation : « Residential neighborhood, geographic work environment, and work economic sector: associations with body fat measured by bio-electrical impedance in the RECORD Study»

Abstract :

Introduction Studies of associations between geographic life environment and obesity have mostly investigated body mass index and focused on residential neighborhoods. The present study examined associations between residential neighborhood, geographic work environment, and 11 work economic sectors and body composition [i.e. fat mass index (FMI) and percentage of fat mass (%FM)]. Methods This study involved 4331 participants from the RECORD study, recruited in 2007-2008, and residing in the Paris metropolitan area, that were geolocated at their residence and at their workplace. Body composition was assessed by TANITA TBF 300 foot-to-foot bioelectrical impedance analyzers. Cluster analysis was applied to measure the socioeconomic status and urbanicity degree of the workplace and residential neighborhoods. Contextual variables for the residential and workplace neighborhoods and 11 work economic sectors were examined in relation to FMI and %FM using multilevel linear regression adjusted for individual factor. Findings After adjusting for individual variables, FMI and %FM increased independently with decreasing density of population and educational level for men. Among women, only the residential educational level was related to FMI and %FM, with a stronger association than among men. Among women, FMI also independently decreased with the degree of urbanicity of the workplace

neighborhood. Regarding working economic sectors, among men, a higher FMI and %FM was observed among participants working in the construction sector than among those working in the education sector. For women, FMI was lower among participants working in the construction sector than among participants working in the health and social sector. Discussion/ implications Public health programs attempting to reduce the obesity prevalence and social/territorial inequalities in obesity should consider, in addition to the residential neighborhood, the geographic environment around the workplace and the work economic sector.

Ana Lourenço :

Town : Aveiro, Portugal

Job: Directrice de recherche

Company : University of Coimbra (Department of Geography)

Title of the presentation : « Unfair and unsustainable: still and always the issue of childhood obesity»

Abstract :

Obesity prevalence has tripled in the last 25 years. This trend crosses all age ranges, affecting both adults and children alike; concerning childhood obesity, a number of studies has highlighted its diverse range of short- and long-term health consequences, such as type II diabetes, hypertension and higher cholesterol. Portugal represents one of the more severe cases of child obesity, with prevalence rates that reach 31.5% of children aged 7-9 years. How can this issue be addressed? Is this upward trend of child obesity reversible? There is general consensus among researchers that excess weight gain is caused by numerous factors. Although genetic factors play a significant role, they do not fully explain the dramatic increase in obesity rates in recent years. Environmental factors are increasingly considered as obesogenics because they facilitate the intake of excessive calories and/or reduce individual metabolism. Empirical studies found that children from low socioeconomic households exhibit higher levels of obesity. In addition, it seems that disadvantages are cumulative: less powerful individuals with low socioeconomic status (SES) are more likely to live in relatively disadvantaged neighbourhoods, where resources and facilities which might promote healthy lifestyles are scarce. The clustering or overlapping effects of individual and neighbourhood resources – or the lack thereof – on health disadvantages are at the core of the “deprivation amplification” or “environmental injustice” models. This cross-sectional study investigates the associations between weigh status, physical activity (PA), and parent’s environmental perceptions among children aged 3 to 10 years across SES backgrounds. We hypothesised that children from lower SES backgrounds are more obese, more sedentary, and more likely to live in disadvantaged, obesogenic environments, where opportunities to promote children’s physical activity are scarce. Given that we hypothesise that children’s behaviours are directly related to neighbourhood factors, we argue that childhood obesity should be

considered to be an issue of environmental injustice. Our sample included 531 children, aged 3-10 years, living in urban areas of Aveiro district (equivalent to county), located at the central area of Portugal. Weight and height were measured; overweight and obese were defined using age and sex-specific BMI cut-off points, as defined by IOTF. Questionnaires included variables on PA levels, SES and parental neighbourhood perceptions. A Principal Component Analysis for Categorical Data was performed to reduce the environmental data into two neighbourhood dimensions, one being related to the built environment and the other to the social environment. The independent associations of SES, the main predictor, with BMI, PA and perceived neighbourhood dimensions was analysed using ordered logistic regressions. Our results showed that obesity increases and PA decreases among children with the lowest SES who are also living in neighbourhoods with higher perceived risk. This suggests a clear socioeconomic gradient in the degree of access to neighbourhood resources, which, in turn, leads to distinct socioeconomic patterns in child health and wellbeing, particularly issues related to obesity. Environmental risks magnify individual vulnerability, thereby creating an environmental injustice issue. Thus, overweight and obesity are not only avoidable but can probably be managed and controlled by environmental changes. Key words: Childhood obesity; Perceptions of neighborhood environment; Social inequities; Environmental injustice.

Stefanie Rezanoff:

Town : Vancouver, Canada

Job: Maître de conférences

Company : Simon Fraser University

Title of the presentation : « Housing First Reduces Re-offending among Formerly Homeless Adults with Mental Disorders: Results of a Randomized Controlled Trial»

Abstract :

Background: People who are both homeless and mentally ill are at very high risk of being arrested and involved with the criminal justice system. Considerable public costs have been associated with service use among this subgroup, especially those related to justice system involvement. Healthcare and housing interventions have been shown to produce multiple benefits among the homeless mentally ill, particularly the model known as Housing First (HF). HF is characterized by rapid rehousing in permanent, market accommodations without requirements around sobriety/treatment adherence, and facilitating access to specific resources (e.g., health, social, vocational) to support the attainment of client centered goals. Experimental evidence indicates that HF increases housing stability within this population. It is also associated with lower residential costs than common alternative approaches. Few studies, however, have examined the effect of HF on crime or public safety. Methods: Individuals meeting criteria for homelessness and a current mental disorder were randomized to one of three conditions: treatment as usual (reference); scattered site HF (in

which participants are dispersed in market accommodations); and congregate HF (where participants are supported together in a single building). Administrative data representing all convictions extending from at least ten years prior to recruitment and up to two years post-randomization were linked in order to study prior histories of offending and to test the relationship between housing status and offending following randomization for up to two years. Intent-to-treat analysis was conducted to evaluate the effect of HF interventions using negative binomial regression. Results: Of the 297 study participants, 67% (n=198) was involved with the justice system, with a mean of 8.07 convictions per person in the ten years prior to recruitment. The most common category of crime was "property offences" (mean=4.09). Following randomization, the scattered site HF condition was associated with significantly fewer sentences than treatment as usual (Adjusted IRR = 0.29; p = 0.07). Congregate HF was associated with a marginally significant reduction in sentences compared to treatment as usual (Adjusted IRR = 0.55; p=0.108). Offending history was predictive of convictions, while concurrent substance use was not. Conclusions: This study is the first randomized controlled trial to demonstrate benefits of HF among a homeless sample with mental illness in the domain of public safety and crime. Our results are consistent with broader social policy programs that have experimentally demonstrated improvements in physical and mental health among the poor through reductions in economic segregation. Our sample was frequently involved with the justice system, with great personal and societal costs, and findings confirm that HF programs – particularly those using the scattered site format – promote reductions in offending and reconviction. Our findings also suggest that non-abstinence based HF for people with concurrent disorders can effectively improve public safety. This underscores the importance of addressing criminogenic risks among the homeless and mentally ill, such as poverty and exposure to crime, rather than triaging offence risk on the basis of specific symptoms. Further implementation of HF is strongly indicated. Research examining interdependencies between housing, health, and the justice system is indicated. keywords: Intra-urban dynamics; social and territorial health inequities; determinants of health; public health; urban planning Language of communication: English