Healthy Liveable Cities (HLC) Literature Alert

Web of Science: February 2019

Record 1

Title: A multilevel approach for promoting physical activity in rural communities: a cluster randomized controlled trial

Author(s): Beck, AM (Beck, Alan M.)[1] ; Eyler, AA (Eyler, Amy A.)[1] ; Hipp, JA (Hipp, J. Aaron)[2] ; King, AC (King, Abby C.)[3,4] ; Tabak, RG (Tabak, Rachel G.)[1] ; Yan, Y (Yan, Yan)[5,6] ; Reis, RS (Reis, Rodrigo S.)[1,7] ; Duncan, DD (Duncan, Dixie D.)[1] ; Gilbert, AS (Gilbert, Amanda S.)[1] ; Serrano, NH (Serrano, Natalicio H.)[1] ; Brownson, RC (Brownson, Ross C.)[1,5,6]

Source: BMC PUBLIC HEALTH Volume: 19 Article Number: 126 DOI: 10.1186/s12889-019-6443-8 Published: JAN 30 2019 Document Type:Article

Abstract: BackgroundPhysical activity (PA) has demonstrated a decreased risk in various cancers and other chronic diseases; however, rural residents are less likely to attain recommended levels of PA compared to urban and suburban counterparts. Given rural residents make up 15% of the United States population, there is a need for novel approaches to increase PA among this population. The goal of the present study is to investigate the effectiveness of a multilevel intervention to increase PA rates among rural residents.Methods/designGuided by an ecological framework, a group-randomized design will be used to evaluate the effects of a three-level intervention for increasing PA among adult residents residing in 6 rural communities (n=600) along with 6 control communities (n=600). The intervention includes components at the individual (short message service [SMS] text messages), interpersonal (social support in walking groups), and community levels (events at existing trails). Innovative methods to encourage participation will be employed as well as a focus on life priorities (family, recreation, hobbies) other than health. Aim 1 includes a literature review and key informant interviews to determine the local contexts for intervention adaptation. Aim 2 will employ a set of interventions at the individual, interpersonal, and community-levels to evaluate their impact on moderate-to-vigorous PA as measured by self-reported (telephone survey) and objectively assessed (accelerometry) measures. These data are supplemented by location based on Global Positioning System and community audits, which provide information on recreational amenities, programs/policies, and street segments.DiscussionThis study is among the first of its kind to test a multilevel intervention in a rural setting, address life priorities that compliment health outcomes, and examine moderation between behavioral interventions and the natural environments where people are physically active. Our results will influence the field by enhancing the ability to scale-up innovative, PA interventions with the potential to reach high-risk, rural populations.Trial registrationClinical Trials NCT03683173, September 25, 2018.

Record 2

Title: Factors influencing sedentary behaviour: A system based analysis using Bayesian networks within DEDIPAC

Author(s): Buck, C (Buck, Christoph)[1] ; Loyen, A (Loyen, Anne)[2] ; Foraita, R (Foraita, Ronja)[1] ; Van Cauwenberg, J (Van Cauwenberg, Jelle)[3,4] ; De Craemer, M (De Craemer, Marieke)[5] ; Mac Donncha, C (Mac Donncha, Ciaran)[6] ; Oppert, JM (Oppert, Jean-Michel)[7] ; Brug, J (Brug, Johannes)[8] ; Lien, N (Lien, Nanna)[9] ; Cardon, G (Cardon, Greet)[5] ...More Group Author(s): DEDIPAC Consortium

Source: PLOS ONE Volume: 14 Issue: 1 Article Number: e0211546 DOI: 10.1371/journal.pone.0211546 Published: JAN 30 2019 Document Type:Article

Abstract: Background Decreasing sedentary behaviour (SB) has emerged as a public health priority since prolonged sitting increases the risk of non-communicable diseases. Mostly, the independent association of factors with SB has been investigated, although lifestyle behaviours are conditioned by interdependent factors. Within the DEDIPAC Knowledge Hub, a system of sedentary behaviours (SOS)-framework was created to take interdependency among multiple factors into account. The SOS framework is based on a system approach and was developed by combining evidence synthesis and expert consensus. The present

study conducted a Bayesian network analysis to investigate and map the interdependencies between factors associated with SB through the life-course from large scale empirical data.

Record 3

Title: Associations between spatial access to physical activity facilities and frequency of physical activity; how do home and workplace neighbourhoods in West Central Scotland compare?

Author(s): Macdonald, L (Macdonald, Laura)[1]

Source: INTERNATIONAL JOURNAL OF HEALTH GEOGRAPHICS Volume: 18 Article Number: 2 DOI: 10.1186/s12942-019-0166-z Published: JAN 29 2019 Document Type:Article

Abstract: BackgroundOver a third of the Scottish population do not meet physical activity (PA) recommendations, with a greater proportion of those from disadvantaged areas not meeting recommended levels. There is a great need for detailed understanding of why some people are active while others are not. It has been established that features within home neighbourhoods are important for promoting PA, and although around 60% of time spent in exercise daily is undertaken outside the residential environment, relatively little research includes both home and workplace neighbourhood contexts. This study utilised an existing west central Scotland survey and spatial data on PA facilities to examine whether, for working adults, there are links between access to facilities, within home and workplace neighbourhoods, and frequency of PA, and whether such associations differ by socio-economic group.MethodsUsing a Geographic Information System (GIS), home and workplace postcodes of a sub-sample of Transport, Health and Well-being' 2010 study respondents (n=513) were mapped, along with public (i.e. public-sector funded) and private (i.e. private-sector funded) PA facilities (e.g. sports halls, gyms, pools etc.) within 800m and 1600m path/street network buffers of home and workplace postcodes. Using Analysis of Variance, associations between spatial access to PA facilities (i.e. facility counts within buffers) and self-reported PA (i.e. days being physically active in past month) were analysed. Models were run separately for access to any, public, private, and home, workplace, and home/workplace facilities. Associations were examined for all respondents, and stratified by age and income deprivation.ResultsRespondents' PA frequency was associated with spatial access to specific types of facilities near home and near home or workplace (combined). In general, PA frequency was higher where individuals lived/worked in closer proximity to private facilities and frequency lower where individuals lived/worked nearby to public facilities. Results varied by age and income deprivation sub-groups.ConclusionThis research contributes to methods exploring neighbourhood contextual influences on PA behaviour; it goes beyond a focus upon home neighbourhoods and incorporates access to workplace neighbourhood facilities. Results demonstrate the importance of examining both neighbourhood types, and such findings may feed into planning for behaviour-change interventions within both spaces.

Record 4

Title: Where Children Live: Examining Whether Neighborhood Crime and Poverty Is Associated With Overweight and Obesity Among Low-Income Preschool-Aged Primary Care Patients

Author(s): Showell, NN (Showell, Nakiya N.)[1] ; Jennings, JM (Jennings, Jacky M.)[1] ; Johnson, KA (Johnson, Katherine A.)[1] ; Perin, J (Perin, Jamie)[1] ; Thornton, RLJ (Thornton, Rachel L. J.)[1]

Source: FRONTIERS IN PEDIATRICS Volume: 6 Article Number: 433 DOI: 10.3389/fped.2018.00433 Published: JAN 22 2019 Document Type:Article

Abstract: Introduction: Low-income and racial/ethnic minority preschoolers (aged 2-5 years) are disproportionately affected by obesity and its associated health consequences. Individual-level factors (e.g., diet) and environmental factors (e.g., neighborhood conditions) contribute to these disparities. However, there is limited research examining the role of neighborhood factors on obesity risk specifically among high-risk preschoolers. The objectives of this study are to describe the geographic distribution of preschool patients receiving care at two primary care pediatrics clinics affiliated with an academic medical center, and explore whether exposure to neighborhood crime and poverty is associated with obesity risk

among this population. Methods: Cross-sectional multilevel study linking clinical administrative data on patient visits between 2007 and 2012 with data from the American Community Survey and the Baltimore City Police Department. Home addresses of 2-5 year-old patients were geocoded to their neighborhood (i.e., census block group) of residence. We used logistic regression to examine the cross-sectional relationship between obesity and overweight and neighborhood-level factors. All analyses were adjusted for age and gender, and stratified by race/ethnicity (Black, Hispanic, and White). Results: The majority of preschool patients lived in moderate or high crime (84%) or high poverty (54%) neighborhoods. A significantly higher proportion of Black preschoolers lived in high poverty neighborhoods compared to White preschoolers (61% vs. 38%, $p < 0.001$). Among this clinic-based sample of preschoolers, living in high crime or high poverty neighborhoods was not associated with a clinically significant increased odds of overweight or obesity. Conclusions: This study examines the association between neighborhood factors and obesity and overweight among a clinic-based population of low-income racial/ethnic minority preschoolers. The neighborhoods where preschoolers in this sample lived, on average had higher crime counts and poverty than the citywide average for Baltimore. Our findings also suggest that Black preschoolers are exposed to higher levels of neighborhood poverty compared to Whites. While no meaningful association between these neighborhood factors and odds of obesity or overweight was found in this cross-sectional analysis, our findings suggest avenues for future studies informative to the development of clinic-based obesity management interventions aimed at effectively addressing neighborhood contributorsto early childhood obesity disparities.

Record 5

Title: Identification of starting points to promote health and wellbeing at the community level - a qualitative study

Author(s): Hilger-Kolb, J (Hilger-Kolb, Jennifer)[1] ; Ganter, C (Ganter, Claudia)[1] ; Albrecht, M (Albrecht, Maren)[1] ; Bosle, C (Bosle, Catherin)[1] ; Fischer, JE (Fischer, Joachim E.)[1] ; Schilling, L (Schilling, Laura)[1] ; Schlufter, C (Schluefter, Claudia)[1] ; Steinisch, M (Steinisch, Maria)[1] ; Hoffmann, K (Hoffmann, Kristina)[1]

Source: BMC PUBLIC HEALTH Volume: 19 Article Number: 75 DOI: 10.1186/s12889-019-6425-x Published: JAN 16 2019 Document Type:Article

Abstract: BackgroundAs health is influenced by the social, economic and environmental conditions in which individuals live, local communities are an ideal setting to promote health and wellbeing. However, up to now various health promotion interventions at the community level have had limited success, perhaps related to an incomplete understanding of local contexts and priorities. We therefore aimed to develop a broader and deeper understanding of topics or issues that were most salient to residents of a South-West German community by exploring their perceptions of needs, challenges, barriers and existing resources related to health and well-being.MethodsAs an initial step of a multi-year community-based participatory research project, we conducted semi-structured interviews with key informants (n=30) from various community settings (e.g., child care, elderly care, businesses, non-profit organizations, village councils, and local government). The terms health and wellbeing were included in the stem of each question in the semi-structured interview guide to enable a focus on related perceived needs, challenges, barriers and existing resources. Interviews were audiotaped, transcribed verbatim and analyzed using qualitative content analysis techniques.ResultsThemes emerging from our interviews appeared to center primarily in three distinct areas: natural resources and built environment, access to services, and social cohesion including subthemes on the importance of social engagement and volunteerism, sense of community, and shared identity.ConclusionsThat health and wellbeing were not identified explicitly as a priority by key informants suggests that these should not be presented as the primary focus of a community-wide initiative. Instead themes with a higher priority should be addressed in ways that can lead to better health and wellbeing as a secondary goal.

Record 6

Title: The effect of outdoor air pollutants and greenness on allergic rhinitis incidence rates: a cross-sectional study in Seoul, Korea

Author(s): Kwon, MY (Kwon, M. Y.)[1] ; Lee, JS (Lee, J. S.)[1] ; Park, S (Park, S.)[1]

Source: INTERNATIONAL JOURNAL OF SUSTAINABLE DEVELOPMENT AND WORLD ECOLOGY Volume: 26 Issue: 3 Pages: 258-267 DOI: 10.1080/13504509.2019.1570982 Published: 2019 Document Type:Article

Abstract: Air pollution poses a serious threat to human health in Asia. This study analyzes the association of air pollutants and greenness with incidence rates of allergic rhinitis in Seoul at the administrative district level to gain insight into district-level urban policies to improve public health. A spatial regression model is constructed to investigate the correlation between allergic rhinitis incidence rates and five air pollutants measured at 128 air pollution monitoring stations around Seoul: sulfur dioxide (SO2), particulate matter less than 10m (PM10), ozone (O-3), nitrogen dioxide (NO2), and carbon monoxide (CO). The allergic rhinitis incidence data are derived from the National Health Insurance Service's database that includes the number of allergic rhinitis-related clinic visits by the patients over 20years of age and living in Seoul. A kriging geostatistical interpolation was used to estimate average air pollution level of 423 administrative districts. To assess pollen concentrations that can affect allergic rhinitis, the average normalized difference vegetation index (NDVI) is measured based on the urban greenness. The model, controlling for built environment and socio-economic attributes, identifies the possibility of a weak association between allergic rhinitis incidence rates and carbon monoxide levels. The NDVI value is negatively correlated with allergic rhinitis incidence rates, implying a complicated aspect in relation to the effect of urban greenness.

Record 7

Title: A longitudinal study of the association between social capital and mortality in community- dwelling elderly Brazilians

Author(s): Gontijo, CF (Gontijo, Cristina Franco)[1] ; Firmo, JOA (Araujo Firmo, Joselia Oliveira)[1] ; Lima-Costa, MF (Lima-Costa, Maria Fernanda)[1] ; de Loyola, AI (de Loyola Filho, Antonio Ignacio)[1]

Source: CADERNOS DE SAUDE PUBLICA Volume: 35 Issue: 2 Article Number: e00056418 DOI: 10.1590/0102-311X00056418 Published: 2019 Document Type:Article

Abstract: The aim of this study was to verify whether social capital is a predictor of all-cause mortality in community-dwelling elderly Brazilians. Participation included 935 surviving elderly from the elderly cohort of the Bambui Project in 2004, who were followed until 2011. The outcome was all-cause mortality and the exposure of interest was social capital, measured in its two components, cognitive (social cohesion and social support) and structural (social participation and neighborhood satisfaction). Sociodemographic variables, health conditions, and smoking were included in the analysis for adjustment purposes. Data analysis was based on the Cox proportional hazards model, providing hazard ratios (HR) and 95% confidence intervals (9.5%CI). The social participation dimension of social capital's structural component was the only dimension independently associated with mortality: elderly Brazilians that did not participate in social groups or associations showed a two-fold higher risk of death (HR = 228 95%CI: 1.49-3.49) compared to their peers. The study's results reveal the need to extend interventions beyond the specific field of health in order to promote longevity, focusing on environmental and social characteristics.

Record 8

Title: The neighbourhood social environment and alcohol use among urban and rural Scottish adolescents

Author(s): Martin, G (Martin, Gina)[1] ; Inchley, J (Inchley, Joanna)[1] ; Marshall, A (Marshall, Alan)[2] ; Shortt, N (Shortt, Niamh)[3] ; Currie, C (Currie, Candace)[1]

Source: INTERNATIONAL JOURNAL OF PUBLIC HEALTH Volume: 64 Issue: 1 Pages: 95-105 Special Issue: SI DOI: 10.1007/s00038-018-1181-8 Published: JAN 2019 Document Type:Article

Abstract: ObjectivesThis research examined the relationship between neighbourhood social environmental characteristics and drinking outcomes among a sample of urban and rural adolescents.MethodsFrom a sample of 1558 Scottish secondary schoolchildren, surveyed as part of the 2010 Health Behaviour in

School-aged Children study, we modelled three drinking outcomes on a variety of neighbourhood conditions, including social cohesion, disorder, alcohol outlet density, deprivation, and urban/rurality. Nested and cross-classified multilevel logistic regressions were specified.ResultsAn urban-to-rural gradient was found with non-urban adolescents exhibiting higher odds of having ever drank. Neighbourhood social cohesion related to having ever drank. Among drinkers, those living in accessible small towns had higher odds of weekly drinking and drunkenness compared to urban areas. Higher odds of drunkenness were also found in remote rural areas. Those residing in the least deprived areas had lower odds of weekly drinking.ConclusionsIn Scotland, inequalities exist in adolescent alcohol use by urban/rurality and neighbourhood social conditions. Findings support regional targeting of public health efforts to address inequalities. Future work is needed to develop and evaluate intervention and prevention approaches for neighbourhoods at risk.

Record 9

Title: Determinants of Physical Activity in A Constrictive Work Environment: A Study on Brown-Water Mariners

Author(s): Null, DB (Null, Dawn Bloyd)[1] ; Hasin, A (Hasin, Afroza)[1] ; Partridge, J (Partridge, Julie)[1] ; Welshimer, K (Welshimer, Kathleen)[1]

Source: AMERICAN JOURNAL OF HEALTH EDUCATION Volume: 50 Issue: 1 Pages: 14-24 DOI: 10.1080/19325037.2018.1548313 Published: 2019 Document Type:Article

Abstract: Background: To date, research investigating workers' engagement in physical activity while working and living in constrictive environments is limited. Purpose: The purpose of this study was to identify the determinants and prevalence of physical activity among mariners and to understand factors associated with exercise while working on the towboat. Methods: The study utilized constructs from the PRECEDE-PROCEED planning model to explore perceived benefits, barriers, and motivation for physical activity (PA) among mariners using a cross-sectional survey and anthropometric measurements. Results: Only 29% of participants met moderate PA guidelines, and 34% met vigorous PA guidelines. Deckhands were most likely to meet moderate (49%) and vigorous (51%) guidelines and were significantly more likely to meet guidelines compared to all other occupations on the boat. Nearly all participants (92.9%) were considered overweight or obese. Nonexercisers were significantly more likely to suggest shift work and weather as barriers to PA. Discussion: Findings suggest that mariners are at increased risk of chronic disease and the constrictive environment of the towboat is obesogenic by promoting physical inactivity. Translation to Health Education Practice: PA changes must be considered because results reinforce the significance impact of outside forces, including split shift work and the built environment, on health behaviors.

Record 10

Title: Cultural Stress, Emotional well-being, and Health Risk Behaviors among Recent Immigrant Latinx families: The Moderating Role of Perceived Neighborhood Characteristics

Author(s): Lorenzo-Blanco, EI (Lorenzo-Blanco, Elma I.)[1] ; Meca, A (Meca, Alan)[2] ; Unger, JB (Unger, Jennifer B.)[3] ; Szapocznik, J (Szapocznik, Jose)[4] ; Cano, MA (Cano, Miguel Angel)[5] ; Des Rosiers, SE (Des Rosiers, Sabrina E.)[6] ; Schwartz, SJ (Schwartz, Seth J.)[7]

Source: JOURNAL OF YOUTH AND ADOLESCENCE Volume: 48 Issue: 1 Pages: 114-131 DOI: 10.1007/s10964-018-0907-5 Published: JAN 2019 Document Type:Article

Abstract: Latinx families can experience cultural stressors, which can negatively influence their emotional and behavioral health. Few studies have examined if perceived neighborhood characteristics buffer against or exacerbate the negative effects of cultural stress on adolescent and parent health outcomes. To address this gap in the literature, this study investigated how parent (social cohesion, informal social control, extent of problems) and adolescent (support) perceived neighborhood factors moderated the associations of parent and adolescent cultural stress with parent and adolescent emotional and behavioral well-being. Data came from waves 1 and 3 of a six-wave longitudinal survey with 302 recent immigrant Latinx adolescents

(47% female, Mage=14.51 years) and their parents (74% mothers, Mage=41.09 years). Results indicated that when parents reported low levels of neighborhood problems, adolescent cultural stress did not predict adolescent health risk behaviors. However, adolescent and parent cultural stress predicted higher levels of adolescents' sense of hope when parents perceived low levels of neighborhood problems. Furthermore, adolescent and parent cultural stress predicted higher youth depressive symptoms and health risk behaviors when positive neighborhood factors (informal social control, social cohesion) were high. Similarly, adolescent and parent cultural stress predicted lower adolescents' sense of hope and self-esteem when positive neighborhood factors were high. These findings indicate that efforts to reduce the negative effects of cultural stress on youth emotional and behavioral health may benefit from combating neighborhood problems. Results further indicate that research is needed to clarify unexpected findings. Directions for future research are discussed.

Record 11

Title: A Critical Review of Urban Livability

Author(s): Ahmed, NO (Ahmed, Nora Osama)[1] ; El-Halafawy, AM (El-Halafawy, Amr Mostafa)[2] ; Amin, AM (Amin, Ahmed Mohamed)[3]

Source: EUROPEAN JOURNAL OF SUSTAINABLE DEVELOPMENT Volume: 8 Issue: 1 Pages: 165-182 DOI: 10.14207/ejsd.2019.v8n1p165 Published: 2019 Document Type:Review

Abstract: The term 'Livability' had emerged for a holistic, systemic strategy in an attempt to reverse some of the 20th century urban planning techniques and had applied very broadly; however, ambiguity still characterizes the term. The study tries to give a clear explanation of this term; investigating the linkage between the term 'Livability' and other terms in addition to codifying different studies that are testing new methodologies for analysing cities in terms of being livable. Finally, the paper discusses how to make any built urban environment whether a city, a town or a neighbourhood truly livable.

Record 12

Title: Traffic calming and neighborhood livability: Evidence from housing prices. in Portland

Author(s): Polloni, S (Polloni, Stefano)[1]

Source: REGIONAL SCIENCE AND URBAN ECONOMICS Volume: 74 Pages: 18-37 DOI: 10.1016/j.regsciurbeco.2018.11.004 Published: JAN 2019 Document Type:Article

Abstract: This paper examines the impact of traffic calming on the livability of urban residential streets. Using georeferenced data on the installation of 1187 calming devices in Portland (OR), I test whether the interventions locally affect housing prices during succeeding years. I provide reduced-form evidence that city dwellers pay significant premiums to limit their exposure to motor vehicles, but obtain mixed results regarding the overall price impacts of calming devices. My estimates suggest that only the most effective traffic calming measures have a detectable impact on housing prices. The implied traffic flow elasticity is -0.07: projects decreasing traffic by 16% raise home values on treated streets by 1%.

Record 13

Title: Life-Cycle Asset Management in Residential Developments Building on Transport System Critical Attributes via a Data-Mining Algorithm

Author(s): Hasan, U (Hasan, Umair)[1] ; Whyte, A (Whyte, Andrew)[1] ; Al Jassmi, H (Al Jassmi, Hamad)[2]

Source: BUILDINGS Volume: 9 Issue: 1 Article Number: 1 DOI: 10.3390/buildings9010001 Published: JAN 2019 Document Type:Article

Abstract: Public transport can discourage individual car usage as a life-cycle asset management strategy towards carbon neutrality. An effective public transport system contributes greatly to the wider goal of a sustainable built environment, provided the critical transit system attributes are measured and addressed to (continue to) improve commuter uptake of public systems by residents living and working in local communities. Travel data from intra-city travellers can advise discrete policy recommendations based on a residential area or development's public transport demand. Commuter segments related to travelling frequency, satisfaction from service level, and its value for money are evaluated to extract econometric models/association rules. A data mining algorithm with minimum confidence, support, interest, syntactic constraints and meaningfulness measure as inputs is designed to exploit a large set of 31 variables collected for 1,520 respondents, generating 72 models. This methodology presents an alternative to multivariate analyses to find correlations in bigger databases of categorical variables. Results here augment literature by highlighting traveller perceptions related to frequency of buses, journey time, and capacity, as a net positive effect of frequent buses operating on rapid transit routes. Policymakers can address public transport uptake through service frequency variation during peak-hours with resultant reduced car dependence apt to reduce induced life-cycle environmental burdens of buildings by altering residents' mode choices, and a potential design change of buildings towards a public transit-based, compact, and shared space urban built environment.

Record 14

Title: Active Transportation: The Role of Parent Attitude, The Physical Environment, and Social Capital

Author(s): Ross, A (Ross, Allison)[1] ; Kwon, JY (Kwon, Ja Youn)[2] ; Kulinna, PH (Kulinna, Pamela Hodges)[2] ; Searle, M (Searle, Mark)[1]

Source: JOURNAL OF PHYSICAL ACTIVITY & HEALTH Volume: 16 Issue: 1 Pages: 60-67 DOI: 10.1123/jpah.2017-0503 Published: JAN 2019 Document Type:Article

Abstract: Background: Despite recommendation and confirmed physical activity benefits, participation in active transportation to school (ATS) has continued to decline. This study's purpose was to create and test a model of ATS that is directly explained by the constructs of parent attitude, the physical environment, and social capital controlling for age and gender. Methods: Participants were parents (N = 248) of children at 6 elementary and 2 middle schools in 1 district in the Southwestern United States. The survey included previously validated behavior, environmental, attitude, and social items (eg, Safe Routes to School Parent Survey/U.S. General Social Survey). Structural equation modeling was used to test the fit of the model and whether parent attitude, the physical environment, and social capital were associated with active transportation. Results: An adjusted measurement model was a good fit for the data. The physical environment (beta = 0.391; P < .01) as well as parent attitude (beta = 0.535; P < .001) were positively associated with ATS. Conclusion: This study supports a model of ATS, affirming that parent attitude, the physical environment, and social capital are effective constructs from which to conceptualize associations with walking and biking to school.

Record 15

Title: Validating and Shortening the Environmental Assessment of Public Recreation Spaces Observational Measure

Author(s): Geremia, CM (Geremia, Carrie M.)[1] ; Cain, KL (Cain, Kelli L.)[1] ; Conway, TL (Conway, Terry L.)[1] ; Sallis, JF (Sallis, James F.)[1] ; Saelens, BE (Saelens, Brian E.)[2]

Source: JOURNAL OF PHYSICAL ACTIVITY & HEALTH Volume: 16 Issue: 1 Pages: 68-75 DOI: 10.1123/jpah.2018-0142 Published: JAN 2019 Document Type:Article

Abstract: Background: Assessment of park characteristics that may support physical activity (PA) can guide the design of more activity-supportive parks. Direct-observation measures are seldom used due to time and resource restraints. Methods: The authors developed shortened versions of the original Environmental Assessment of Public Recreation Spaces (EAPRS) tool and tested their construct validity by comparing

scores from 40 parks in San Diego, CA to observe park use and PA. Results: PA elements were positively associated with park use and park PA across all versions, with the highest correlations for trails (.45 for use and .51 for PA using EAPRS-Original; .57 use and .62 PA using Abbreviated; and .38 use and .43 PA using Mini). Presence of amenities, using Abbreviated and Mini versions, was correlated with park use (.71, .64) and PA (.67, .59). The overall park quality score using Abbreviated and Mini had similar correlations (adjusted for park size) with park use (.74, .72) and PA (.72, .70) as EAPRS-Original (.71 use and .73 PA). Conclusion: In all 3 versions, EAPRS overall park scores were strongly related to observed park use and PA. Shorter versions of EAPRS make it more feasible to use park observations in research and practice.

Record 16

Title: The Association between Green Space and the Prevalence of Overweight/ Obesity among Primary School Children

Author(s): Manandhar, S (Manandhar, Shraddha)[1] ; Suksaroj, TT (Suksaroj, Thunwadee Tachapattaworakul)[1] ; Rattanapan, C (Rattanapan, Cheerawit)[1]

Source: INTERNATIONAL JOURNAL OF OCCUPATIONAL AND ENVIRONMENTAL MEDICINE Volume: 10 Issue: 1 Pages: 1-10 DOI: 10.15171/ijoem.2019.1425 Published: JAN 2019 Document Type:Article

Abstract: Background: Childhood overweight and obesity is a major health problem in many low-and middle-income countries such as Nepal. There is evidence indicating a significant association between health and access to green space. Objective: To estimate the prevalence of childhood overweight and obesity, and to identify its association with green space among primary school children in Kathmandu metropolitan city, Nepal. Methods: A cross-sectional study was conducted on 440 (195 male and 245 female) students studying in selected primary schools of Kathmandu metropolitan city. Mothers/caretakers of the participating children were also studied. Results: Of the 440 children, 13.2% were overweight; 6.8% were obese. 4 of 16 studied variables that had significant associations with overweight/obesity in bivariate analyses, were found independent predictors of overweight/obesity after being adjusted for confounders. They included mode of transportation to school (aOR 2.08, 95% CI 1.12 to 3.88), consumption of sugary snack (aOR 2.57, 95% CI 1.12 to 5.91) and salty/savory snack (aOR 4.13, 95% CI 1.71 to 9.96), and the distance of a green space from child's residence (aOR 27.46, 95% CI 6.10 to 123.54). Conclusion: One-fifth of the children in urban schools were found to be overweight or obese. The distance to a green space was identified as the most significant factor influencing childhood overweight/obesity.

Record 17

Title: Assessment of neighborhood street characteristics related to physical activity in the Lower Mississippi Delta

Author(s): Thomson, JL (Thomson, Jessica L.)[1] ; Goodman, MH (Goodman, Melissa H.)[1] ; Landry, AS (Landry, Alicia S.)[2]

Source: HEALTH PROMOTION PERSPECTIVES Volume: 9 Issue: 1 Pages: 24-30 DOI: 10.15171/hpp.2019.03 Published: 2019 Document Type:Article

Abstract: Background: Physical activity levels were low for pregnant and postpartum participants in a diet and physical activity intervention. To explore micro level characteristics of participants' neighborhoods related to physical activity, an ancillary study was conducted. Methods: This cross-sectional study encompassed the neighborhood street segments of women participating in a diet and physical activity intervention that was conducted in the Lower Mississippi Delta. A neighborhood was defined as all street segments within one-fourth walking mile of a participant's home address. Street segments were measured using the Rural Active Living Assessment's Street Segment Assessment tool. In the field and on foot, raters measured street segments using neighborhood maps with segments identified. Results: Mean street segment length was 0.22 miles (SD = 0.14). All segments had flat terrain with residential (98%), open spaces (74%), and public/civic (34%) as the most prevalent land uses. Almost three-fourths of segments did not have any sidewalks (69%), sidewalk buffers or defined shoulders (73%), crosswalks or pedestrian

signage (69%), or posted speed limits (74%). However, 88% had stop signs and almost all (96%) had street lighting and were paved multilane roads (95%) with low traffic volume (90%). Most residential structures present were single family detached homes (95%) and the most common public/civic and commercial structures were churches (24%) and convenience stores (9%), respectively. Almost all of the street segments were rated as walkable (99%) and aesthetically pleasing (94%). Conclusion: Neighborhood street segments surrounding Delta Healthy Sprouts participants' homes were walkable and aesthetically pleasing. However, safety features such as sidewalks, pedestrian signage, and posted speed limit signs were lacking. To address these inadequate pedestrian safety features, infrastructure changes are needed for small rural towns.

Record 18

Title: The "healthy dose" of nature: A cautionary tale

Author(s): Bell, SL (Bell, Sarah L.)[1] ; Leyshon, C (Leyshon, Catherine)[2] ; Foley, R (Foley, Ronan)[3] ; Kearns, RA (Kearns, Robin A.)[4]

Source: GEOGRAPHY COMPASS Volume: 13 Issue: 1 Article Number: e12415 DOI: 10.1111/gec3.12415 Published: JAN 2019 Document Type:Article

Abstract: Growing cross-disciplinary interest in understanding if, how, and why time spent with nature can contribute to human health and well-being has recently prompted efforts to identify an ideal healthy dose of nature; exposure to a specific type of nature at a specified frequency and duration. These efforts build on longstanding attempts to prescribe nature in some way, most recently in the form of so-called "green prescriptions." In this critical discussion paper, we draw on key examples from within the fields of health and cultural geography to encourage deeper and more critical reflection on the value of such reductionist dose-response frameworks. By foregrounding the relationally emergent qualities of people's dynamic nature encounters, we suggest such efforts may be both illusory and potentially exclusionary for the many individuals and groups whose healthy nature interactions diverge from the statistical average or "normal" way of being. We suggest value in working towards alternative more-than-human approaches to health and well-being, drawing on posthumanist theories of social practice. We present two practice examples-beach-going and citizen science-to demonstrate how a focus on social practices can better cater for the diverse and dynamic ways in which people come to conceptualise, embody, and interpret nature in their everyday lives. We close by reflecting on the wider societal transformations required to foster greater respect for embodied difference and diversity.

Record 19

Title: Physical and spatial assessment of school neighbourhood built environments for active transport to school in adolescents from Dunedin (New Zealand)

Author(s): Pocock, T (Pocock, Tessa)[1] ; Moore, A (Moore, Antoni)[2] ; Keall, M (Keall, Michael)[3] ; Mandic, S (Mandic, Sandra)[1]

Source: HEALTH & PLACE Volume: 55 Pages: 1-8 DOI: 10.1016/j.healthplace.2018.10.003 Published: JAN 2019 Document Type:Article

Abstract: Adolescent active transport to school (ATS) is influenced by demographic, social, environmental and policy factors. Yet, the relationship between school neighbourhood built environment (SN-BE) and adolescents' ATS remains largely unexplored. This observational study examined associations between observed, objectively-measured and perceived SN-BE features and adolescents' ATS in Dunedin (New Zealand). Adolescents' perception of safety of walking to school was the strongest correlate of ATS among adolescents living <= 2.25 km of school, whereas assessed micro- and macro-scale SN-BE features were not significantly correlated with ATS. Adolescents' perceptions of walking safety should be considered as a part of comprehensive efforts to encourage ATS.

Record 20

Title: Urban blue space and health and wellbeing in Hong Kong: Results from a survey of older adults

Author(s): Garrett, JK (Garrett, Joanne K.)[1] ; White, MP (White, Mathew P.)[1] ; Huang, J (Huang, Junjie)[2] ; Ng, S (Ng, Simpson)[2] ; Hui, Z (Hui, Zero)[2] ; Leung, C (Leung, Colette)[2] ; Tse, LA (Tse, Lap Ah)[2] ; Fung, F (Fung, Franklin)[2] ; Elliott, LR (Elliott, Lewis R.)[1] ; Depledge, MH (Depledge, Michael H.)[1] ; Wong, MCS (Wong, Martin C. S.)[2]

Source: HEALTH & PLACE Volume: 55 Pages: 100-110 DOI: 10.1016/j.healthplace.2018.11.003 Published: JAN 2019 Document Type:Article

Abstract: The potential benefits of aquatic environments for public health have been understudied in Asia. We investigated the relationships between blue space exposures and health outcomes among a sample of predominantly older adults in Hong Kong. Those with a view of blue space from the home were more likely to report good general health, while intentional exposure was linked to greater odds of high wellbeing. Visiting blue space regularly was more likely for those within a 10-15 min walk, and who believed visit locations had good facilities and wildlife present. Longer blue space visits, and those involving higher intensity activities, were associated with higher recalled wellbeing. Our evidence suggests that, at least for older citizens, Hong Kong's blue spaces could be an important public health resource.

Record 21

Title: A multicomponent method assessing healthy cardiovascular urban environments: The Heart Healthy Hoods Index

Author(s): Cebrecos, A (Cebrecos, Alba)[1,2] ; Escobar, F (Escobar, Francisco)[1,2] ; Borrell, LN (Borrell, Luisa N.)[3] ; Diez, J (Diez, Julia)[1] ; Gullon, P (Gullon, Pedro)[1] ; Sureda, X (Sureda, Xisca)[1] ; Klein, O (Klein, Olivier)[4] ; Franco, M (Franco, Manuel)[1,5]

Source: HEALTH & PLACE Volume: 55 Pages: 111-119 DOI: 10.1016/j.healthplace.2018.11.010 Published: JAN 2019 Document Type:Article

Abstract: Previous studies have examined the built environment mostly focusing on a single exposure construct (e.g. walkability) to examine its association with health outcomes. This study developed a multicomponent Heart Healthy Hoods Index to characterize heart-healthy urban environments and examined its relationship with the prevalence of cardiovascular disease (CVD) in Madrid, Spain. Using spatial methods, we generated two index models (model 0 unweighted and model 1 weighted) using the percentage of deaths for the main behavioral risk factors for CVD (diet, physical activity, alcohol, and tobacco environments). We performed global (Ordinal Least Square) and local (Geographically Weighed Regression) regression analyses to assess the relationship between both index models and CVD prevalence, and to identify the best index model. In the global analysis, both models showed a significant negative relationship with CVD prevalence. In the local analysis, Model 1 removed the spatial autocorrelation of residuals and showed the lowest values for the Akaike information criterion. This study provides evidence of a non-stationary relationship between the heart-healthy urban environment and CVD prevalence. The HHH index may be an effective tool to identify and prioritize geographical areas for CVD prevention.

Record 22

Title: Individual, social, and physical environmental factors related to changes in walking and cycling for transport among older adults: A longitudinal study

Author(s): Mertens, L (Mertens, Lieze)[1,2] ; Van Dyck, D (Van Dyck, Delfien)[1,2] ; Deforche, B (Deforche, Benedicte)[3,4] ; De Bourdeaudhuij, I (De Bourdeaudhuij, Ilse)[1] ; Brondeel, R (Brondeel, Ruben)[1,2] ; Van Cauwenberg, J (Van Cauwenberg, Jelle)[2]

Source: HEALTH & PLACE Volume: 55 Pages: 120-127 DOI: 10.1016/j.healthplace.2018.12.001 Published: JAN 2019 Document Type:Article

Abstract: To date, no longitudinal studies examined the change in walking and cycling for transport as distinct outcomes over time and investigated the predictors of those changes. Therefore, this present study examined the change in odds of engagement in walking and cycling for transport as distinct outcomes among Belgian older adults over a three-year follow-up period, and examined factors (i.e. socio-demographics, psychosocial, perceived social and physical environmental characteristics) related to these changes in engaging in walking and cycling for transport. Against our expectations, we found significantly higher odds of engaging in cycling for transport among older adults at follow-up compared to baseline and no significant differences in the odds of engaging in walking for transport. Interventions should assist older adults to increase their self-efficacy towards PA, their perceived benefits of PA, and their perception of land use mix diversity in their neighborhood in order to increase the engagement in walking/cycling for transport over time, or help to decrease their perceived barriers towards PA or their perception to have a lot of physical barriers to walk/cycle in their neighborhood. Future longitudinal studies with larger samples are warranted investigating interaction effects between different predictors at various levels to find out which factors can be further integrated into active transport interventions in older adults.

Record 23

Title: Unpacking walkability indices and their inherent assumptions

Author(s): Shashank, A (Shashank, Aateka)[1] ; Schuurman, N (Schuurman, Nadine)[1]

Source: HEALTH & PLACE Volume: 55 Pages: 145-154 DOI: 10.1016/j.healthplace.2018.12.005 Published: JAN 2019 Document Type:Article

Abstract: Walkability indices are used to characterize the relationship between health and place. Indices make assumptions that affect analysis of the built environment and resulting walkability scores. This study compares three walkability indices created by health researchers focusing on the methods, variables, and walkability scores resulting from differences in definitions and methods. This paper deconstructs the walkability algorithms utilized by each index and rebuilds them in Vancouver, Canada. We find that neighbourhoods in the northern core closer to the downtown area have similar walkability scores across all three indices, while the outer peripheral neighbourhoods with moderate to low walkability have more variation in walkability scores across indices. Most walkability variables - residential density, street connectivity, and land-use - lack a rationale for inclusion, often assumed by researchers. Walkability indices used in health research prove to be incongruent with each other and misrepresentative of actual human behavior. We explore the impact of variable selection and methodologies on indices in the interest of more rigorous health research.

Record 24

Title: The role of neighborhoods in household food insufficiency: Considering interactions between physical disorder, low social capital, violence, and perceptions of danger

Author(s): Jackson, DB (Jackson, Dylan B.)[1] ; Johnson, KR (Johnson, Kecia R.)[2] ; Vaughn, MG (Vaughn, Michael G.)[3,4] ; Hinton, ME (Hinton, Marissa E.)[1]

Source: SOCIAL SCIENCE & MEDICINE Volume: 221 Pages: 58-67 DOI: 10.1016/j.socscimed.2018.12.013 Published: JAN 2019 Document Type:Article

Abstract: Rationale: Food insecurity is a significant public health concern, with implications for community and individual health and well-being. Although a growing body of literature points to the role of neighborhoods in household food insecurity, studies using nationally representative samples to explore interactions between neighborhood risks - including violence and danger are lacking. Objective: The present study examines whether interactions between physical disorder, low social capital, and violence/danger in the neighborhood have significant implications for the risk of household food insufficiency using a large, nationally representative sample of U.S. children and their families. Method: Data are from the 2016 National Survey of Children's Health, a survey of a cross-sectional weighted probability sample of U.S. children from 0 to 17 years of age. Multinomial logistic regression techniques

were used to analyze the data. Results: Neighborhood risk factors interacted to predict household food insufficiency, with the confluence of low social capital and violence/danger yielding the strongest effects. Conclusions: Our findings suggest that food hardship should be addressed within the context of neighborhood revitalization. The risk of food insufficiency among children and families in especially high-risk ecological contexts might be ameliorated with the provision of informal and formal sources of nutrition assistance and support.

Record 25

Title: Characteristics of neighborhood environment (social cohesion and safety) and common mental disorders in ELSA-Brasil study: a multilevel analysis

Author(s): Secretti, T (Secretti, Tatiani)[1] ; Nunes, MAA (Antunes Nunes, Maria Angelica)[1] ; Schmidt, MI (Schmidt, Maria Ines)[1] ; Stein, MC (Stein, Markus Chagas)[2] ; Santos, SM (Santos, Simone M.)[3]

Source: CADERNOS DE SAUDE PUBLICA Volume: 35 Issue: 1 Article Number: e00197017 DOI: 10.1590/0102-311X00197017 Published: 2019 Document Type:Article

Abstract: The purpose of this study was to determine if self-reported characteristics of social cohesion and local neighborhood safety positively affect the mental health of their residents, regardless of individual characteristics. A sample of participants in the Brazilian Longitudinal Study of Adult Health (ELSA-Brasil) baseline was used. The Clinical Interview Schedule-Revised (CIS-R) instrument was used for tracking common mental disorders (CMD). Social cohesion and safety were measured by validated scales of neighborhood environment self-reported characteristics. The multilevel logistic regression model was used to estimate the effect in neighborhoods (level 2) and individuals (level 1), as well as the odds ratios for each neighborhood explanatory variable and social characteristics in the CMD. The results showed that part of the variance (2.3%), in the common mental disorders prevalence is attributed to local neighborhoods. The characteristics of social cohesion and safety remained significant, even after the adjustment of individual explanatory variables. This study confirmed the hypothesis that individuals living in neighborhoods where they perceive low social cohesion and safety present a higher chance of developing CMD.

Record 26

Title: A systematized literature review on the associations between neighbourhood built characteristics and walking among Canadian adults

Author(s): Farkas, B (Farkas, Brenlea)[1] ; Wagner, DJ (Wagner, Daniel J.)[1] ; Nettel-Aguirre, A (Nettel-Aguirre, Alberto)[1,2,3] ; Friedenreich, C (Friedenreich, Christine)[1,4,5] ; McCormack, GR (McCormack, Gavin R.)[1]

Source: HEALTH PROMOTION AND CHRONIC DISEASE PREVENTION IN CANADA-RESEARCH POLICY AND PRACTICE Volume: 39 Issue: 1 Pages: 1-14 DOI: 10.24095/hpcdp.39.1.01 Published: JAN 2019 Document Type:Review

Abstract: Introduction: Evidence to date suggests that the built environment has the potential to facilitate and even discourage physical activity. A limitation of previous reviews is that they have typically not been country-specific. We conducted a systematized literature review of quantitative studies that estimated associations between the built environment-which were objectively measured-and walking among Canadian adults. Methods: Five scientific databases were searched for peer-reviewed studies published in all years up to December 31, 2016, that estimated the association between the built environment (i.e. objectively measured using audits and Geographic Information Systems [GIS]) and physical activity among a sample of Canadian adults. The database searches, title and abstract screen, full-text review and data extraction were undertaken by two reviewers. Results: Of 4140 articles identified, 25 met the inclusion criteria. Most studies included data from a single Canadian province. All but two studies were cross-sectional. Most studies captured self-reported walking for transportation and walking for any purpose. Overall walkability and land use were consistently associated with walking for transportation, while proximity to destinations was associated with walking for any purpose. Conclusions: Our review findings

suggest that the built environment is potentially important for supporting adult walking. Overall walkability, land use and proximity to destinations appear to be important given their association with transportation walking and walking for any purpose.

Record 27

Title: Research challenges for cultural ecosystem services and public health in (peri-)urban environments

Author(s): Chen, XW (Chen, Xianwen)[1] ; de Vries, S (de Vries, Sjerp)[2] ; Assmuth, T (Assmuth, Timo)[3] ; Dick, J (Dick, Jan)[12] ; Hermans, T (Hermans, Tia)[2] ; Hertel, O (Hertel, Ole)[4] ; Jensen, A (Jensen, Anne)[5] ; Jones, L (Jones, Laurence)[6] ; Kabisch, S (Kabisch, Sigrun)[7] ; Lanki, T (Lanki, Timo)[8,9] ; Lehmann, I (Lehmann, Irina)[10] ; Maskell, L (Maskell, Lindsay)[11] ; Norton, L (Norton, Lisa)[11] ; Reis, S (Reis, Stefan)[12,13]

Source: SCIENCE OF THE TOTAL ENVIRONMENT Volume: 651 Pages: 2118-2129 Part: 2 DOI: 10.1016/j.scitotenv.2018.09.030 Published: FEB 15 2019 Document Type:Review

Abstract: Urbanization is a global trend, and consequently the quality of urban environments is increasingly important for human health and wellbeing. Urban life-style is typically associated with low physical activity and sometimes with high mental stress, both contributing to an increasing burden of diseases. Nature-based solutions that make effective use of ecosystem services, particularly of cultural ecosystem services (CES), can provide vital building blocks to address these challenges. This paper argues that, the salutogenic, i.e. health-promoting effects of CES have so far not been adequately recognised and deserve more explicit attention in order to enhance decision making around health and wellbeing in urban areas. However, a number of research challenges will need to be addressed to reveal the mechanisms, which underpin delivery of urban CES. These include: causal chains of supply and demand, equity, and equality of public health benefits promoted. Methodological challenges in quantifying these are discussed. The paper is highly relevant for policy makers within and beyond Europe, and also serves as a review for current researchers and as a roadmap to future short- and long-term research opportunities. (C) 2018 The Authors. Published by Elsevier B.V.

Record 28

Title: Objective evaluation of physical activity pattern using smart devices

Author(s): Simaityte, M (Simaityte, Monika)[1] ; Petrenas, A (Petrenas, Andrius)[1] ; Kravcenko, J (Kravcenko, Julija)[2] ; Kaldoudi, E (Kaldoudi, Eleni)[3] ; Marozas, V (Marozas, Vaidotas)[1,2]

Source: SCIENTIFIC REPORTS Volume: 9 Article Number: 2006 DOI: 10.1038/s41598-019-38638-z Published: FEB 14 2019 Document Type:Article

Abstract: Physical activity session frequency and distribution over time may play a significant role on survival after major cardiovascular events. However, the existing amount-based metrics do not account for these properties, thus the physical activity pattern is not fully evaluated. The aim of this work is to introduce a metric which accounts for the difference between the actual and uniform distribution of physical activity, thus its value depends on physical activity aggregation over time. The practical application is demonstrated on a step data from 40 participants, half of them diagnosed with chronic cardiovascular disease (CVD). The metric is capable of discriminating among different daily patterns, including going to and from work, walking in a park and being active the entire day. Moreover, the results demonstrate the tendency of CVD patients being associated with higher aggregation values, suggesting that CVD patients spend more time in a sedentary behaviour compared to healthy participants. By combining the aggregation with the intensity metric, such common weekly patterns as inactivity, regular activity and "weekend warrior" can be captured. The metric is expected to have clinical relevance since it may provide additional information on the relationship between physical activity pattern and health outcomes.

Record 29

Title: Protocol for a cross sectional study of cancer risk, environmental exposures and lifestyle behaviors in a diverse community sample: the Community of Mine study

Author(s): Jankowska, MM (Jankowska, Marta M.)[1] ; Sears, DD (Sears, Dorothy D.)[2] ; Natarajan, L (Natarajan, Loki)[3,4] ; Martinez, E (Martinez, Elena)[4] ; Anderson, CAM (Anderson, Cheryl A. M.)[3] ; Sallis, JF (Sallis, James F.)[3] ; Matthews, SA (Matthews, Stephen A.)[5] ; Crist, K (Crist, Katie)[3] ; Dillon, L (Dillon, Lindsay)[3] ; Johnson, E (Johnson, Eileen)[3] ; Barrera-Ng, A (Barrera-Ng, Angelica)[3] ; Full, K (Full, Kelsey)[3] ; Godbole, S (Godbole, Suneeta)[3] ; Kerr, J (Kerr, Jacqueline)[3,4]

Source: BMC PUBLIC HEALTH Volume: 19 Article Number: 186 DOI: 10.1186/s12889-019-6501-2 Published: FEB 13 2019 Document Type:Article

Abstract: Physical inactivity and unhealthy diet are modifiable behaviors that lead to several cancers. Biologically, these behaviors are linked to cancer through obesity-related insulin resistance, inflammation, and oxidative stress. Individual strategies to change physical activity and diet are often short lived with limited effects. Interventions are expected to be more successful when guided by multi-level frameworks that include environmental components for supporting lifestyle changes. Understanding the role of environment in the pathways between behavior and cancer can help identify what environmental conditions are needed for individual behavioral change approaches to be successful, and better recognize how environments may be fueling underlying racial and ethnic cancer disparities. Methods: This cross-sectional study was designed to select participants (n = 602 adults, 40% Hispanic, in San Diego County) from a range of neighborhoods ensuring environmental variability in walkability and food access. Biomarkers measuring cancer risk were measured with fasting blood draw including insulin resistance (fasting plasma insulin and glucose levels), systemic inflammation (levels of CRP), and oxidative stress measured from urine samples. Objective physical activity, sedentary behavior, and sleep were measured by participants wearing a GT3X+ ActiGraph on the hip and wrist. Objective measures of locations were obtained through participants wearing a Qstarz Global Positioning System (GPS) device on the waist. Dietary measures were based on a 24-h food recall collected on two days (weekday and weekend). Environmental exposure will be calculated using static measures around the home and work, and dynamic measures of mobility derived from GPS traces. Associations of environment with physical activity, obesity, diet, and biomarkers will be measured using generalized estimating equation models. Discussion: Our study is the largest study of objectively measured physical activity, dietary behaviors, environmental context/exposure, and cancer-related biomarkers in a Hispanic population. It is the first to perform high quality measures of physical activity, sedentary behavior, sleep, diet and locations in which these behaviors occur in relation to cancer-associated biomarkers including insulin resistance, inflammation, impaired lipid metabolism, and oxidative stress. Results will add to the evidence-base of how behaviors and the built environment interact to influence biomarkers that increase cancer risk.

Record 30

Title: Environmental correlates of physical activity among children 10 to 13 years old in Wallonia (Belgium)

Author(s): Pedroni, C (Pedroni, Camille)[1] ; Dujeu, M (Dujeu, Maud)[1,2] ; Moreau, N (Moreau, Nathalie)[1] ; Lebacq, T (Lebacq, Theresa)[1] ; Meroc, E (Meroc, Estelle)[1] ; Godin, I (Godin, Isabelle)[2] ; Castetbon, K (Castetbon, Katia)[1]

Source: BMC PUBLIC HEALTH Volume: 19 Article Number: 187 DOI: 10.1186/s12889-019-6509-7 Published: FEB 13 2019 Document Type:Article

Abstract: Background: In Belgium, as in many other countries, the juvenile practice of physical activity is insufficient. A growing attention has been paid to environmental factors that may influence physical activity but with inconsistent findings. This study aims to estimate the association between daily life environment characteristics and physical activity among children 10 to 13 years old in Wallonia (Belgium). Methods: Data were collected using a self-administered questionnaire among 1940 children (HBSC survey). Associations between factors related to the children's living environment and physical activity (vigorous physical activity (VPA) >= twice a week; global physical activity (GPA) defined as VPA >= twice a week and moderate-to-vigorous physical activity >= 1 h/day) were estimated using logistic regressions adjusted for

potential confounders. Results: Nearly three-quarters of the children practiced VPA >= twice a week, but only one in five practiced GPA consistent with recommendations. After adjustment, children living in a neighborhood with playgrounds or parks were more likely to achieve a recommended level of GPA (OR: 1.34 [1.04-1.73]), as were children who reported that other youngsters were present in their neighborhood with whom they could play outside (OR: 1.50 [1.12-1.99]). The presence of neighborhood children was also positively associated with VPA (OR: 1.80 [1.42-2.29]); in stratified analyses, the association was significant only among boys (OR: 1.95 [1.34-2.82]). Moreover, and only in girls (OR: 1.66 [1.10-2.49]), a feeling of safety in one's neighborhood was positively associated with VPA. No association was found between VPA and the existence of a yard or a garden at home to go playing outside. Conclusion: Our results argue for developing actions aimed at creating living environments more favorable to children's daily physical activity. More specifically, they help better understand the environment of Belgian children and thus contribute to better identify their needs.

Record 31

Title: 'We want to be there for everyone': imagined spaces of encounter and the politics of place in a super-diverse neighbourhood

Author(s): Hoekstra, MS (Hoekstra, Myrte S.)[1] ; Pinkster, FM (Pinkster, Fenne M.)[1]

Source: SOCIAL & CULTURAL GEOGRAPHY Volume: 20 Issue: 2 Pages: 222-241 DOI: 10.1080/14649365.2017.1356362 Published: FEB 12 2019 Document Type:Article

Abstract: In the context of increasingly diverse urban populations in European cities, neighbourhood organizations are often seen as offering spaces of encounter that can foster a sense of belonging. As a result, they have formed an important element in urban policies on community identity and social cohesion. Yet everyday encounters in such micro-publics may not necessarily be experienced as positive, and these spaces themselves might become sites of contestation and exclusion. Through an ethnographic study in a super-diverse neighbourhood in Amsterdam, The Netherlands, this paper investigates how residents' sense of belonging to the neighbourhood is informed by competing claims on a neighbourhood centre. Although envisioned as a collective space, contestations between different groups of residents over the centre as a functional and meaningful place illustrate how governing institutions shape informal politics of place through their own vision for the neighbourhood and their selective support of some initiatives over others.

Record 32

Title: Simulation modeling to enhance population health intervention research for chronic disease prevention

Author(s): Tanuseputro, P (Tanuseputro, Peter)[1,2,3,4] ; Arnason, T (Arnason, Trevor)[5] ; Hennessy, D (Hennessy, Deirdre)[2] ; Smith, B (Smith, Brendan)[6,7] ; Bennett, C (Bennett, Carol)[3] ; Kopec, J (Kopec, Jacek)[8] ; Pinto, AD (Pinto, Andrew D.)[6,9,10,11] ; Perez, R (Perez, Richard)[3] ; Tuna, M (Tuna, Meltem)[3] ; Manuel, D (Manuel, Douglas)[1,2,3,12]

Source: CANADIAN JOURNAL OF PUBLIC HEALTH-REVUE CANADIENNE DE SANTE PUBLIQUE Volume: 110 Issue: 1 Pages: 52-57 DOI: 10.17269/s41997-018-0109-7 Published: FEB 2019 Document Type:Editorial Material

Abstract: Population Health Intervention Research (PHIR) is an expanding field that explores the health effects of population-level interventions conducted within and outside of the health sector. Simulation modeling-the use of mathematical models to predict health outcomes in populations given a set of specified inputs-is a useful, yet underutilized tool for PHIR. It can be employed at several phases of the research process: (1) planning and designing PHIR studies; (2) implementation; and (3) knowledge translation of findings across settings and populations. Using the example of community-wide, built environment interventions for the prevention of type 2 diabetes, we demonstrate how simulation models can be a powerful technique for chronic disease prevention research within PHIR. With increasingly available data

on chronic disease risk factors and outcomes, the use of simulation modeling in PHIR for chronic disease prevention is anticipated to grow. There is a continued need to ensure models are appropriately validated and researchers should be cautious in their interpretation of model outputs given the uncertainties that are inherent with simulation modeling approaches. However, given the complexity of disease pathways and methodological challenges of PHIR studies, simulation models can be a valuable tool for researchers studying population interventions that hold the potential to improve health and reduce health inequities.

Record 33

Title: Public open space exposure measures in Australian health research: a critical review of the literature

Author(s): Lamb, KE (Lamb, Karen E.)[1,2,3] ; Mavoa, S (Mavoa, Suzanne)[4,5,6] ; Coffee, NT (Coffee, Neil T.)[7] ; Parker, K (Parker, Kate)[1] ; Richardson, EA (Richardson, Elizabeth A.)[8] ; Thornton, LE (Thornton, Lukar E.)[1]

Source: GEOGRAPHICAL RESEARCH Volume: 57 Issue: 1 Pages: 67-83 DOI: 10.1111/1745-5871.12325 Published: FEB 2019 Document Type:Review

Abstract: Numerous studies have shown associations between public open space and a variety of health outcomes. Yet the extent to which firm conclusions and planning policy recommendations can be drawn from this body of work depends on how public open space availability has been measured and reported. Other researchers have highlighted potential issues with the way that public open space has been measured but have not systematically assessed the extent of this problem. This paper provides a comprehensive critical review of studies of public open space and health conducted in Australia to identify and compare public open space measurement and data treatment. Our analysis showed wide variation in how public open space was measured, as well as a lack of consistency in reporting public open space exposure measures and under-reporting of measurement methods. We find that such tendencies limit how much these studies can be compared and contrasted with each other. The corollary of that finding is that without more detailed reporting of exposure measures, it will be difficult to establish an evidence base that informs planning for healthy, liveable environments. In response, we develop and present a checklist for reporting public open space exposure to address this challenge.

Record 34

Title: Concurrent assessment of urban environment and cardiometabolic risk over 10 years in a middle-aged population-based cohort

Author(s): Daniel, M (Daniel, Mark)[1,2,3] ; Carroll, SJ (Carroll, Suzanne J.)[1] ; Niyonsenga, T (Niyonsenga, Theophile)[1] ; Piggott, EJ (Piggott, Ellie J.)[4] ; Taylor, A (Taylor, Anne)[5] ; Coffee, NT (Coffee, Neil T.)[1]

Source: GEOGRAPHICAL RESEARCH Volume: 57 Issue: 1 Pages: 98-110 DOI: 10.1111/1745-5871.12318 Published: FEB 2019 Document Type:Article

Abstract: Inference regarding the impact of urban areas on health is limited by cross-sectional studies assessing few dimensions and ignoring area-level socio-economic status. This study simultaneously assessed several dimensions of the built environment against incident cardiometabolic risk (CMR) arising over 10 years. It tested the hypothesis that, accounting for local area relative wealth, features of the built environment would not predict incident CMR. Initially, disease-free adults in a biomedical cohort in Adelaide, Australia, provided address and clinical data over three waves of follow-up. CMR was defined as the count of five clinical CMR factors. Built environment measures were derived for urban form, and natural, and food environments. Local area wealth was expressed using the relative location factor index. Poisson growth models accounting for within-suburb clustering, age, sex, and education were used to estimate associations between built environment measures and increasing CMR. Fitted linear trajectories had statistically significant mean values of intercepts and slopes. CMR trajectories were associated with age, male sex, and low education. In models including measures of the food, natural, and urban form environments, per standard deviation increase, only POS count predicted incident CMR, which was more

strongly predicted by relative location factor. Not accounting for local area socio-economic status may overestimate the strength of relationships between health and the built environment. Inequity in accessible POS is robustly related to incident CMR.

Record 35

Title: Association of community food environment and obesity among US adults: a geographical information system analysis

Author(s): Chen, MF (Chen, Meifang)[1] ; Creger, T (Creger, Thomas)[2] ; Howard, V (Howard, Virginia)[3] ; Judd, SE (Judd, Suzanne E.)[4] ; Harrington, KF (Harrington, Kathy F.)[5] ; Fontaine, KR (Fontaine, Kevin R.)[5]

Source: JOURNAL OF EPIDEMIOLOGY AND COMMUNITY HEALTH Volume: 73 Issue: 2 Pages: 148-155 Article Number: E143 DOI: 10.1136/jech-2018-210838 Published: FEB 2019 Document Type:Article

Abstract: Background Emerging studies have investigated the contribution of food environment to obesity in the USA. However, the findings were inconsistent. Methodological explanations for the inconsistent findings included: (1) using individual store/restaurant exposure as food environment indicator, and (2) not accounting for non-stationarity assumption. This study aimed to describe the spatial distribution of obesity and examine the association between community food environment and obesity, and the variation of magnitude and direction of this association across the USA. Methods Data from 20 897 adults who participated in the REasons for Geographic and Racial Differences in Stroke study and completed baseline assessment between January 2003 and October 2007 were eligible in analysis. Hot Spot analysis was used to assess the spatial distribution of obesity. The association between community food environment and obesity and the variation of this association across the USA were examined using global ordinary least squares regression and local geographically weighted regression. Results Higher body mass index (BMI) clusters were more likely to locate in socioeconomically disadvantaged, rural, minority neighbourhoods with a smaller population size, while lower BMI clusters were more likely to appear in more affluent, urban neighbourhoods with a higher percentage of non-Hispanic white residences. There was an overall significant, inverse association between community food environment and obesity (beta=-0.0210; p<0.0001). Moreover, the magnitude and direction of this association varied significantly across the US regions. Conclusions The findings underscored the need for geographically tailored public health interventions and policies to address unique local food environment issues to achieve maximum effects on obesity prevention.

Record 36

Title: Network design, built and natural environments, and bicycle commuting: Evidence from British cities and towns

Author(s): Cervero, R (Cervero, Robert)[1] ; Denman, S (Denman, Steve)[2] ; Jin, Y (Jin, Ying)[2]

Source: TRANSPORT POLICY Volume: 74 Pages: 153-164 DOI: 10.1016/j.tranpol.2018.09.007 Published: FEB 2019 Document Type:Article

Abstract: Rates of cycling to work vary significantly from one urban area to another but the reasons for these variations are not well understood. Existing literature highlights the importance of built environments, urban amenities, and high-quality bicycle networks in promoting cycling. However, few studies measure the respective contributions and weigh the collective magnitude of effects of these influences together. We present a multivariate model that reflects the influences of such factors for 36 cities and towns in Britain. The models reveal a complex web of forces shaping cycling to work, confirming that there is no single, silver-bullet factor even in cities with remarkably high commuter cycling. The model results highlight the importance in joining up network level interventions, for instance to reduce both route circuity and on-road stress, which are objectives often being pursued separately. The results also highlight the importance of non-transport aspects such as land use mix and landscape amenities along commuter routes, and the role of city-specific cycling culture. They also underscore the need for closer collaboration between promoters

of commuter cycling and wider urban disciplines to create low-stress routes and supportive built environments in cities and their outskirts.

Record 37

Title: The associations of air pollution, traffic noise and green space with overweight throughout childhood: The PIAMA birth cohort study

Author(s): Bloemsma, LD (Bloemsma, Lizan D.)[1,2] ; Wijga, AH (Wijga, Alet H.)[1] ; Klompmaker, JO (Klompmaker, Jochem O.)[1,2] ; Janssen, NAH (Janssen, Nicole A. H.)[1] ; Smit, HA (Smit, Henriette A.)[3] ; Koppelman, GH (Koppelman, Gerard H.)[4] ; Brunekreef, B (Brunekreef, Bert)[2,3] ; Lebret, E (Lebret, Erik)[1,2] ; Hoek, G (Hoek, Gerard)[2] ; Gehring, U (Gehring, Ulrike)[2]

Source: ENVIRONMENTAL RESEARCH Volume: 169 Pages: 348-356 DOI: 10.1016/j.envres.2018.11.026 Published: FEB 2019 Document Type:Article

Abstract: Background: Air pollution, traffic noise and absence of green space may contribute to the development of overweight in children. Objectives: To investigate the combined associations of air pollution, traffic noise and green space with overweight throughout childhood. Methods: We used data for 3680 participants of the Dutch PIAMA birth cohort. We estimated exposure to air pollution, traffic noise and green space (i.e. the average Normalized Difference Vegetation Index (NDVI) and percentages of green space in circular buffers of 300 m and 3000 m) at the children's home addresses at the time of parental reported weight and height measurements. Associations of these exposures with overweight from age 3 to 17 years were analyzed by generalized linear mixed models, adjusting for potential confounders. Odds ratios (OR's) are presented for an interquartile range increase in exposure. Results: odds of being overweight increased with increasing exposure to NO, (adjusted OR 1.40 [95% confidence interval (CI) 1.12-1.74] per 8.90 mu g/m(3)) and tended to decrease with increasing exposure to green space in a 3000 m buffer (adjusted OR 0.86 [95% CI 0.71-1.04] per 0.13 increase in the NDVI; adjusted OR 0.86 [95% CI 0.71-1.03] per 29.5% increase in the total percentage of green space). After adjustment for NO2, the associations with green space in a 3000 m buffer weakened. No associations of traffic noise with overweight throughout childhood were found. In children living in an urban area, living further away from a park was associated with a lower odds of being overweight (adjusted OR 0.67 [95% CI 0.52-0.85] per 359.6 m). Conclusions: Exposure to traffic-related air pollution, but not traffic noise or green space, may contribute to childhood overweight. Future studies examining the associations of green space with childhood overweight should account for air pollution exposure.

Record 38

Title: Neighborhood-scale urban form typologies of large metropolitan areas: Observations on Istanbul, Cairo, and Tehran

Author(s): Masoumi, HE (Masoumi, Houshmand E.)[1] ; Terzi, F (Terzi, Fatih)[2] ; Serag, YM (Serag, Yehya M.)[3,4]

Source: CITIES Volume: 85 Pages: 170-186 DOI: 10.1016/j.cities.2018.09.005 Published: FEB 2019 Document Type:Article

Abstract: The micro-level urban morphology of large cities in the Middle East and North Africa and southeastern Europe has not been thoroughly investigated, and its transformation during the past decades has remained less-studied. Hence, this study is meant to partially explain urban morphology of Istanbul, Cairo, and Tehran, three megacities of the region by focusing on the historical neighborhood typologies of the past century. The overall aim of this study is to address the feedbacks of historical urban transformations during the past 100 or 150 years to some important aspects of livability like mobility and social interactions. The objectives are to define the typologies of neighborhoods in the three cities and how they have changed over time, to clarify if the neighborhood-level urban form of the three cities have transformed in a similar fashion, and to address the differences between the cities. The variables of this study were population density, centrality, formation and location of facilities, and configuration of street

networks, which were tested by T and Chi-square methods in a representative sample of 259 neighborhoods randomly selected from the case-study cities. The results of statistical hypothesis testing reveal a similarity of neighborhood transformations in the cities in terms of population density. Considerable similarities were found in case of historical changes in centrality (the centeredness of neighborhood amenities), location of neighborhood facilities, and street networks; however, the three cities have general similarities in trends, with potentially similar results for urban mobility. The most important identified planning, political, and societal trends that transformed the neighborhood morphologies were top-down interventions in the 1930s and 1940s, socioeconomic and lifestyle changes in the 1970s because of a jump in oil prices, Iran's 1979 revolution, the Iran-Iraq War for Tehran, internal migration triggered by industrialization, mass and formal housing production for Istanbul, and European inspiration in urban planning in the late 19th century, adoption of socialist ideologies in the 1960s, and the capitalist approach to urban planning in recent years for Cairo.

Record 39

Title: Children's independent travel to and from primary school: Evidence from a suburban town in Germany

Author(s): Scheiner, J (Scheiner, Joachim)[1] ; Huber, O (Huber, Oliver)[1] ; Lohmuller, S (Lohmueller, Stefan)[2]

Source: TRANSPORTATION RESEARCH PART A-POLICY AND PRACTICE Volume: 120 Pages: 116-131 DOI: 10.1016/j.tra.2018.12.016 Published: FEB 2019 Document Type:Article

Abstract: The paper studies the factors that contribute to understand children's independent travel -i.e. not being escorted by an adult to and from primary school in Germany. Binary logit regression is employed, and the data used are taken from a survey among parents of children in seven schools in a medium-sized suburban town. This is the first paper from Germany that simultaneously looks at the full range of dimensions that may help understand children's independent travel: (1) trip characteristics, (2) child characteristics, (3) the household context, (4) subjective concerns, attitudes and perceptions, (5) the transport environment, (6) the built environment and (7) the social environment. In contrast to the majority of studies in the field, an attempt was made to capture a holistic picture of the transport and land-use environment along the route, while at the same time some key attributes of the route were used as separate variables. Perhaps the most notable contribution to research is the distinct differences that we found between outward and return trips. While the morning trip was characterised by distinct impacts of the built and transport environment, most variables turned out insignificant in the afternoon model. Conversely, more attitudinal dimensions turned out significant in the return trip. Some of our findings are clearly relevant for policy. For instance, traffic calming is associated with higher levels of independent travel, while routes characterised by industry and trade, high-speed roads, and zebra-crossings that need to be crossed are associated with lower levels of independent travel. The effects of perceptions and attitudes we find can be taken as starting points for soft policies such as awareness campaigns or traffic education.

Record 40

Title: Fast-food outlet availability and obesity: Considering variation by age and methodological diversity in 22,889 Yorkshire Health Study participants

Author(s): Hobbs, M (Hobbs, M.)[1,2] ; Griffiths, C (Griffiths, C.)[1] ; Green, MA (Green, M. A.)[3] ; Jordan, H (Jordan, H.)[4] ; Saunders, J (Saunders, J.)[5] ; Christensen, A (Christensen, A.)[1] ; McKenna, J (McKenna, J.)[1]

Source: SPATIAL AND SPATIO-TEMPORAL EPIDEMIOLOGY Volume: 28 Pages: 43-53 DOI: 10.1016/j.sste.2018.11.001 Published: FEB 2019

Abstract: This study investigated if the relationship between residential fast-food outlet availability and obesity varied due to methodological diversity or by age. Cross-sectional data (n = 22,889) from the Yorkshire Health Study, England were used. Obesity was defined using self-reported height and weight

(BMI >= 30). Food outlets ("fast-food", "large supermarkets", and "convenience or other food retail outlets") were mapped using Ordnance Survey Points of Interest (PoI) database. Logistic regression was used for all analyses. Methodological diversity included adjustment for other food outlets as covariates and continuous count vs. quartile. The association between residential fast-food outlets and obesity was inconsistent and effects remained substantively the same when considering methodological diversity. This study contributes to evidence by proposing the use of a more comprehensive conceptual model adjusting for wider markers of the food environment. This study offers tentative evidence that the association between fast-food outlets and obesity varies by age.

Record 41

Title: Cardiovascular Disease in the Nation's Capital: How Policy and the Built Environment Contribute to Disparities in CVD Risk Factors in Washington, DC

Author(s): Mauller, P (Mauller, Phillip)[1] ; Doamekpor, LA (Doamekpor, Lauren A.)[1] ; Reed, C (Reed, Crystal)[1] ; Mfume, K (Mfume, Kweisi)[1]

Source: JOURNAL OF RACIAL AND ETHNIC HEALTH DISPARITIES Volume: 6 Issue: 1 Pages: 46-55 DOI: 10.1007/s40615-018-0497-7 Published: FEB 2019 Document Type:Article

Abstract: On average, Washington D.C. residents experience low levels of cardiovascular disease (CVD) behavioral risk factors compared to the rest of the country. Despite presenting as a city of low risk, CVD mortality is higher than the national average. Driving this inconsistency are vast racial disparities as Black D.C. residents die from CVD at a much higher rate than their White counterparts. A closer examination of the data also reveals significant disparities between White and Black populations with regard to behavioral risk factors. Segregation and the built environments of sections of the city with large Black populations may be contributing to risk factor disparities. We examine factors in those built environments that contribute to disparities and assess the intentionality and effectiveness of policies focused on food access, physical activity, and tobacco use implemented between 2003 and 2014. We found that D.C. enacted few policies intentionally designed to reduce barriers in the physical environment that contributed to disparate outcomes, and the few that were implemented showed mixed results in their levels of effectiveness. Our findings demonstrated that both racial and geographical disparities have persisted for more than a decade and half. It is possible that the formation of intentional policies may help reduce barriers in the physical environment and disparate CVD outcomes.

Record 42

Title: Residential and school greenspace and academic performance: Evidence from the GINIplus and LISA longitudinal studies of German adolescents

Author(s): Markevych, I (Markevych, Tana)[1,2,3] ; Feng, XQ (Feng, Xiaoqi)[4,5] ; Astell-Burt, T (Astell-Burt, Thomas)[4,5,6,7] ; Standl, M (Standl, Marie)[2] ; Sugiri, D (Sugiri, Dorothea)[8] ; Schikowski, T (Schikowski, Tamara)[8] ; Koletzko, S (Koletzko, Sibylle)[9] ; Herberth, G (Herberth, Gunda)[10] ; Bauer, CP (Bauer, Carl-Peter)[11] ; von Berg, A (von Berg, Andrea)[12] ; Berdel, D (Berdel, Dietrich)[12] ; Heinrich, J (Heinrich, Joachim)[1,2,13]

Source: ENVIRONMENTAL POLLUTION Volume: 245 Pages: 71-76 DOI: 10.1016/j.envpol.2018.10.053 Published: FEB 2019 Document Type:Article View Journal Impact Abstract

Abstract: Background: Few studies have reported the association between greenspace and academic performance at school level. We examined associations between both residential and school greenspace and individual school grades in German adolescents. Methods: German and maths grades from the latest school certificate, residential and school greenspace, and covariates were available for 1351 10 and 15 years old Munich children and 1078 Wesel children from two German birth cohorts - GINIplus and LISA. Residential and school greenspace was assessed by the Normalized Difference Vegetation Index (NDVI), tree cover, and (in Munich only) proportion of agricultural land, forest, and urban green space in 500-m and 1000-m circular buffers. Longitudinal associations between each exposure-outcome pair were assessed by

logistic mixed effects models with person and school as random intercepts and adjusted for potential confounders. Results: No associations were observed between any of the greenspace variables and grades in Wesel children. Several statistically significant associations were observed with German and maths grades in Munich children, however associations were inconsistent across sensitivity analyses. Conclusions: There is no evidence of an association of higher greenspace at residence, school or combined with improved academic performance in German adolescents from the GINIplus and LISA longitudinal studies.

Record 43

Title: Spatial distribution of lead contamination in soil and equipment dust at children's playgrounds in Beijing, China

Author(s): Peng, TY (Peng, Tianyue)[1] ; O'Connor, D (O'Connor, David)[1] ; Zhao, B (Zhao, Bin)[1] ; Jin, YL (Jin, Yuanliang)[1] ; Zhang, YH (Zhang, Yunhui)[2] ; Tian, L (Tian, Li)[3] ; Zheng, N (Zheng, Na)[4] ; Li, XP (Li, Xiaoping)[5] ; Hou, DY (Hou, Deyi)[1]

Source: ENVIRONMENTAL POLLUTION Volume: 245 Pages: 363-370 DOI: 10.1016/j.envpol.2018.11.011 Published: FEB 2019 Document Type:Article

Abstract: Lead contamination is widespread across China, posing a serious public health concern. In quantifying child lead exposure, established health risk assessment (HRA) approaches often take into account residential soil lead levels. However, this may not constitute a significant exposure source for children in urban mainland China, where the population mainly dwell in high-rise buildings without back or front yards. In this setting, children's playgrounds may represent a more probable exposure source. The present study analyzed lead levels in settled dust on playground equipment and in surficial soils at 71 playgrounds in Beijing, China. Our results reveal that the average playground dust lead concentration was 80.5 mg/kg, more than twice the average soil lead concentration of 36.2 mg/kg. It was found that there are differences in statistical and spatial distributions for lead in playground dust and soils. Lead levels in equipment dust were largely consistent across Beijing, with elevated levels detected at locations in the main city area, the newly developed Tongzhou District, and the rural counties. Whereas average soil lead concentrations were higher at playgrounds in the main city area than other areas of Beijing. Statistical analysis suggests that the lead content in dust and soil may derive from different natural and anthropogenic sources. Equipment dust lead may be associated with long-distance atmospheric transportation and deposition. Whereas lead in soil is more likely to be associated with local traffic. This study also found that, in certain areas of Beijing, the risk of blood lead levels (BLLs) exceeding safe levels was up to 6 times higher when based on dust exposure than when based on playground soil exposure. The results of this study suggests that HRA undertaken for children in urban mainland China should pay closer attention to children's playgrounds as a lead exposure source, and, in particular, playground equipment dust.

Record 44

Title: Grow Healthy Together: Effects of Policy and Environmental Interventions on Physical Activity Among Urban Children and Youth

Author(s): Heath, GW (Heath, Gregory W.)[1] ; Bilderback, J (Bilderback, John)[2]

Source: JOURNAL OF PHYSICAL ACTIVITY & HEALTH Volume: 16 Issue: 2 Pages: 172-176 DOI: 10.1123/jpah.2018-0026 Published: FEB 2019 Document Type:Article

Abstract: Background: There is a paucity of studies, especially among diverse populations, demonstrating the effects of policy and environmental interventions to increase regular physical activity. The Grow Healthy Together Chattanooga project provided the opportunity to assess the impact of physical activity policy and environmental interventions on the physical activity among predominately African American children living in the inner city. Methods: Using the System for Observing Physical Activity and Recreation in Communities (SOPARC), the authors examined the physical activity of children along urban pedestrian/bike routes/trails and recreational park areas within the boundaries of the Grow Healthy Together Chattanooga communities.

SOPARC data were collected at baseline (fall 2010/spring 2011) and repeated (spring 2014) in each community. Results: The SOPARC assessments yielded a total of 692 child/youth observations in 2010 and 806 observations in 2014. Children/youth observed in 2014 were greater than 2 times the odds of engaging in moderate/vigorous physical activity compared with their 2010 counterparts (odds ratio = 2.75, 95% confidence interval, 1.43-5.32). Conclusions: The present findings support the hypothesis that policy and environmental interventions can contribute to increased physical activity levels among children/youth over similar to 3-year period. These results provide evidence that improved access to "urban" pedestrian/bicycle routes/trails appears to translate into increased opportunities for physical activity among inner city children/youth.

Record 45

Title: Trust and the Built Environment in New York City's Public Housing

Author(s): Beck, K (Beck, Kevin)[1]

Source: SOCIOLOGICAL PERSPECTIVES Volume: 62 Issue: 1 Pages: 120-138 DOI: 10.1177/0731121418803327 Published: FEB 2019 Document Type:Article

Abstract: Public housing has been an important site for empirical research on concentrated poverty, social isolation, and social organization. Scholars have demonstrated that public housing was disproportionately built in high poverty neighborhoods, thereby exacerbating the physical and social isolation of residents. They have also hypothesized that physical features of public housing may contribute to a breakdown of social organization. These hypotheses motivated the demolition of large and physically deteriorated public housing structures throughout the United States. I use the New York City Housing and Vacancy Survey to test the hypotheses that large building size and visible building disorder are associated with mistrust among neighbors, as would be expected by theories linking the built environment to social organization. Although I find some evidence that trust is less common in large buildings with higher levels of disorder, I argue that critics of public housing overstate the social effects of the built environment.

Record 46

Title: Neighborhood Racial Diversity and Metabolic Syndrome: 2003-2008 National Health and Nutrition Examination Survey

Author(s): Li, KL (Li, Kelin)[1] ; Wen, M (Wen, Ming)[2] ; Fan, JX (Fan, Jessie X.)[3]

Source: JOURNAL OF IMMIGRANT AND MINORITY HEALTH Volume: 21 Issue: 1 Pages: 151-160 DOI: 10.1007/s10903-018-0728-3 Published: FEB 2019 Document Type:Article

Abstract: This study investigated the independent association between neighborhood racial/ethnic diversity and metabolic syndrome among US adults, and focused on how this association differed across individual and neighborhood characteristics (i.e., race/ethnicity, sex, age, urbanity, neighborhood poverty). Objectively-measured biomarker data from 2003 to 2008 National Health and Nutrition Examination Survey were linked to census-tract profiles from 2000 decennial census (N=10,122). Multilevel random intercept logistic regression models were estimated to examine the contextual effects of tract-level racial/ethnic diversity on individual risks of metabolic syndrome. Overall, more than 20% of the study population were identified as having metabolic syndrome, although the prevalence also varied across demographic subgroups and specific biomarkers. Multilevel analyses showed that increased racial/ethnic diversity within a census tract was associated with decreased likelihood of having metabolic syndrome (OR 0.71, 95% CI 0.52-0.96), particularly among female (OR 0.64; 95% CI 0.43-0.96), young adults (OR 0.60; 95% CI 0.39-0.93), and residents living in urban (OR 0.67; 95% CI 0.48-0.93) or poverty neighborhoods (OR 0.54; 95% CI 0.31-0.95). The findings point to the potential benefits of neighborhood racial/ethnic diversity on individual health risks.

Record 47

Title: Intergroup relations in a super-diverse neighbourhood: The dynamics of population composition, context and community

Author(s): Bynner, C (Bynner, Claire)[1]

Source: URBAN STUDIES Volume: 56 Issue: 2 Pages: 335-351 DOI: 10.1177/0042098017740287 Published: FEB 2019 Document Type:Article

Abstract: There is now an extensive literature demonstrating that experiences of migration and diversity differ significantly between and across local geographies. Three broad explanations for differences in local outcomes have been put forward (Robinson, 2010): first, population composition - the characteristics of individuals living in the neighbourhood; second, context - the social and physical environment; and third, community - socio-cultural histories and collective identities. Few studies examine the linkages between all three explanations and their relative importance. This article applies all three explanations to intergroup relations in a super-diverse context. It draws on data from a mixed methods case study of a neighbourhood in Glasgow, Scotland where long-term white and ethnic minority communities reside alongside Central and Eastern European migrants, refugees and other recent arrivals. The evidence comprises local statistics and documentary evidence, participant observation and qualitative and walk-along interviews with residents and local organisations. The findings highlight the different ways in which people respond to super-diversity, and the importance of the neighbourhood context and the material conditions for intergroup relations. The article thus demonstrates the ambiguities that arise from applying the dynamics of population composition, context and community to neighbourhood analysis, with implications for the study of neighbourhoods more widely.

Record 48

Title: Spatiotemporal analysis of dengue outbreaks in Samanabad town, Lahore metropolitan area, using geospatial techniques

Author(s): Mahmood, S (Mahmood, Shakeel)[1] ; Irshad, A (Irshad, Ahtisham)[1] ; Nasir, JM (Nasir, Jan Mohammad)[2] ; Sharif, F (Sharif, Faiza)[3] ; Farooqi, SH (Farooqi, Shahid Hussain)[4]

Source: ENVIRONMENTAL MONITORING AND ASSESSMENT Volume: 191 Issue: 2 Article Number: 55 DOI: 10.1007/s10661-018-7162-9 Published: FEB 2019 Document Type:Article

Abstract: Dengue is endemic to Pakistan with its usual peak incidence in the post-monsoon period. In the last decade, dengue outbreaks have occurred in major urban areas particularly Karachi and Lahore, affecting large numbers of people. This study is an attempt to analyze the spatiotemporal variation of dengue fever (DF) in Samanabad town, Lahore metropolitan area. The study is based on secondary data, acquired from concerned government departments. Point level geo-coding is used to transform the relative location to the absolute location using Google Earth, and Global Position System (GPS) is used to validate the geo-coded location. Geographic information system (GIS) has been used to perform spatial analysis. It has been found that temporally DF prevalence varies from month to month and year to year. Major outbreak was observed in the year 2013 with more than 900 confirmed DF cases. Rainfall, temperature, and humidity have played a central role in outbreaks. The land cover pattern and population density further intensified the outbreak. Spatially, the number of DF incidence was high in those localities where the entire land is built-up and with little/no green space areas. Analysis reveals that DF is still a major threat to the area as socioeconomic and geographic conditions favor vector breeding and transfer of disease from one person/place to another. This study presents useful information regarding spatiotemporal patterns of dengue outbreak and may bring the attention of public health departments to formulate dengue-combating strategies. The methodology is general for spatiotemporal analysis and can be applied to other infectious diseases as well.

Record 49

Title: Biodiversity and the built environment: Implications for the Sustainable Development Goals (SDGs)

Author(s): Opoku, A (Opoku, Alex)[1]

Source: RESOURCES CONSERVATION AND RECYCLING Volume: 141 Pages: 1-7 DOI: 10.1016/j.resconrec.2018.10.011 Published: FEB 2019 Document Type:Article

Abstract: Recent major global environmental initiatives toward a more sustainable society are the Sustainable Development Goals (SDGs), the New Urban Agenda (NUA) and the Paris Agreement. The built environment has been recognised as a major contributor to loss of biodiversity and should therefore play a major role in a sustainable world where ecological values are enhanced. There should be a smooth interaction between the built environment and the natural environment because humanity and nature are the usual victims of loss of biodiversity. The purpose of this paper is to examine the link between the Built Environment, Biodiversity and the Sustainable Development Goals. The paper explores the role of a sustainable built environment towards biodiversity conservation which is central to the realisation of the SDGs in general and SDG 15 in particular. The paper adopts a qualitative research methodology using knowledge generation workshop involving 16 experts from both academia and industry. The results show that, even though the built environment has a negative impact on biodiversity, it also has the greatest opportunity to integrate biodiversity into all development projects. Reducing the impact of the built environment on biodiversity should be an integral part of policies and strategies towards a sustainable built environment. All key built environment stakeholders need to engage in raising awareness of the effects of biodiversity loss as a result of construction activities, on the health and wellbeing of mankind. The value of this paper is to help decision-makers such as government agencies, industry players and non-governmental organisations to understand the contributions of the built environment towards biodiversity conservation in achieving the SDGs.

Record 50

Title: Do Physical Activity, Social Cohesion, and Loneliness Mediate the Association Between Time Spent Visiting Green Space and Mental Health?

Author(s): van den Berg, MM (van den Berg, Magdalena M.)[1] ; van Poppel, M (van Poppel, Mireille)[1,2] ; van Kamp, I (van Kamp, Irene)[3] ; Ruijsbroek, A (Ruijsbroek, Annemarie)[3] ; Triguero-Mas, M (Triguero-Mas, Margarita)[4,5,6] ; Gidlow, C (Gidlow, Christoffer)[7] ; Nieuwenhuijsen, MJ (Nieuwenhuijsen, Mark J.)[4,5,6] ; Grazuleviciene, R (Grazuleviciene, Regina)[8] ; van Mechelen, W (van Mechelen, Willem)[1] ; Kruize, H (Kruize, Hanneke)[3] ; Maas, J (Maas, Jolanda)[1]

Source: ENVIRONMENT AND BEHAVIOR Volume: 51 Issue: 2 Pages: 144-166 DOI: 10.1177/0013916517738563 Published: FEB 2019 Document Type:Article

Abstract: This cross-sectional study investigated whether physical activity, social cohesion, and loneliness mediate the association between time spent visiting green spaces and perceived mental health and vitality. Questionnaire data were collected from 3,948 residents from 124 neighborhoods across four European cities. Multilevel linear regression analysis revealed positive, but weak, associations between time spent visiting green space and Medical Outcome Study Short Form (SF-36) mental health and vitality score, which suggest small mental health benefits. Single mediation analyses showed that different indicators of physical activity (total, during leisure time, and walking during leisure time), social cohesion, and loneliness were mediators. Multiple mediation analyses showed that physical activity during leisure time and loneliness may explain about 25% of the relationship. The unmediated part of the association suggests that other mediators may explain the association.