

102

Public Health perspective presented by Joel Gittelsohn

Joel Gittelsohn

Johns Hopkins Bloomberg School of Public Health, Baltimore, MD, United States

Abstract not available.

<https://doi.org/10.1016/j.orcp.2018.11.107>

103

Using simulation modelling to build community capacity to change food systems

Andrew Brown

Deakin University, Geelong, Victoria, Australia

Not available at time of print.

<https://doi.org/10.1016/j.orcp.2018.11.108>

104

What approaches can be used to change the system, how do you scale up using collective impact and community models

Shelley Bowen, Jon Anstey*

Health Futures Australia, Melbourne, VIC, Australia

Abstract not available.

<https://doi.org/10.1016/j.orcp.2018.11.109>

105

Applying systems thinking in childhood obesity prevention – lessons from food system change in the WHOSTOPS grant

Steve Allender

School of Medicine, Deakin University, Geelong, VIC, Australia

In this presentation we will introduce several aspects and levels of insight into the application of systems thinking for the prevention of childhood obesity. Examples will be drawn from existing and previously completed community-based trials of whole of community efforts to prevent childhood obesity. Examples will be given of different levels of systems insight from awareness of interrelations and complexity through to formal mathematical expression of system behaviours. Specific system analysis techniques including system dynamics, social network analysis and agent-based models will be introduced and discussed. Preliminary results of a five-year trial will be presented with an emphasis on food and nutrition.

<https://doi.org/10.1016/j.orcp.2018.11.110>

106

Can the community of a rural and remote Australian local government area lead and sustain obesity prevention?Jillian Whelan^{1,*}, Penelope Love^{2,3}, Lynne Millar^{4,5}, Steve Allender⁶, Colin Bell¹¹ *School of Medicine and Global Obesity Centre, Deakin University, Geelong, Victoria, Australia*² *Institute for Physical Activity and Nutrition (IPAN), School of Exercise and Nutrition Sciences, Faculty of Health, Deakin University, Geelong, Victoria, Australia*³ *NHMRC Centre of Research Excellence for the Early Prevention of Obesity in Childhood (EPOCH), Deakin University, Geelong, Victoria, Australia*⁴ *Australian Health Policy Collaboration, Victoria University, Melbourne, Victoria, Australia*⁵ *Australian Institute for Musculoskeletal Science (AIMSS), University of Melbourne, Melbourne, Victoria, Australia*⁶ *School of Health and Social Development, Global Obesity Centre, Deakin University, Geelong, Victoria, Australia*

Background: Findings from multiple community-based obesity prevention interventions have shown that multi-component, multi-level, capacity-building initiatives can reduce obesity levels. However, lingering questions that remains unanswered centre on the degree to which the community can lead prevention efforts and the ongoing sustainability of these community-led interventions. This question was tested in a rural remote local government area of Victoria where adult overweight and obesity prevalence was 16% above the State average. The rural health service requested assistance to reduce avoidable hospital admissions due to chronic disease complications. This catalysed action for the community-collaborative effort which became YCHANGe.

Methods: In this community-led intervention, community-based systems dynamics was combined with the Collective Impact Framework and action based research to define the local determinants of obesity, common agenda, nature and scope of the multiple interventions. Evaluation methods included: community readiness assessments, community-based systems dynamics, workforce audit, policy audit and changes in: kindergartens, workplaces, schools, food supply audit, pre-existing anthropometric data analysis, sales data, lunchbox audits and key informant interviews—all within a collaborative framework under a multi-stakeholder governance structure.

Results: A selection of results include: the local children at 3.5 years recorded a lower prevalence of overweight and obesity compared to the state's average (11.4% c.f. 20%). Discretionary foods in kindergarten lunchboxes was significantly reduced ($p=0.05$). Workforce audits revealed 1.3 EFT available for obesity prevention (7000 sq kms).

Conclusion: This community-led obesity prevention intervention found that children in this LGA begin life within a normal weight range despite the high overweight and obesity prevalence experienced by the adult population. We concluded a rural community can lead some prevention activities that fall within its remit, but the broader systemic issues of food supply require policy support and additional human resources to build and sustain these improvements.

<https://doi.org/10.1016/j.orcp.2018.11.111>