## **Review Article**

## Key Issues for Evidence-based Population Strategies in Promoting Physical Activity: Theories and Frameworks of Population Health Intervention Research

Masamitsu Kamada 1,2)

## **Abstract**

This review discusses how the theories and frameworks of population health intervention researches can be used to produce evidence for effective population strategies in promoting physical activity.

Researchers should consider the 1) study design, 2) intervention strategy, and 3) evaluation framework. Many study design options are available and range from cluster randomized controlled trials to pre/post evaluations. The strategies that apply social marketing, network theory, and ecological models to community-wide interventions are generating a great deal of attention. To evaluate these interventions properly, it is useful to set up a hypothetical logic model and use a RE-AIM (reach, effectiveness/efficacy, adoption, implementation, maintenance) framework. The future challenge is to evaluate physical activity objectively with low cost and low bias in a large population.

In conclusion, more population health intervention researches are needed to identify best practices and show the role of population strategies in promoting physical activity. This evidence will hopefully improve public health practices in various sectors.

**Key words**: population approach, health promotion, population health intervention research, community intervention study, research design

<sup>1)</sup> Department of Health Promotion and Exercise, National Institute of Health and Nutrition, Tokyo, Japan

<sup>2)</sup> Japan Society for the Promotion of Science