



# Area-level Socioeconomic Deprivation Affect Individual Cancer Mortality in Korea

Individual socioeconomic status (SES) is one of the important determinants of health. Public health researchers have also been interested in area-level SES, which has led to the development of several regional deprivation indices (1). These tools usually measure both material deprivation and social deprivation. Material deprivation is associated with disadvantages in securing materials, goods, services, resources, amenities, the physical environment, and residential location. And social deprivation is about on disadvantages in the roles, relationships, functions, customs, rights, and responsibilities as the members of society (2). The deprivation indices can be a useful tool for investigating local health inequalities.

In Korea, Choi et al. (2) suggested the relationship between the town-level deprivation index and the overall or cause-specific mortality in an ecological study. However, the ecological study is neither able to control for individual SES, nor to present the evidence of the causal relationship between the area-level deprivation and individual health. The recent study by Kwak and Kim (3) overcame these using a multilevel Cox proportional hazard model. They examined the effect of town-level deprivation on individual survival time among major cancer patients in Busan, Korea, and revealed that cancer patients living in more deprived areas had shorter survival time than those in affluent areas. The association between area-level deprivation and cancer survival may be explained in part by health-related behaviors and accessibility to health care service (4, 5).

For the future study, researchers may focus on identifying the mechanism how area-level SES affects the survival time of cancer patients. In addition to this, there is a need to develop a policy to reduce regional inequalities in cancer survival. The town-level deprivation index can be a good reference for local governments to develop cancer prevention and care strategies.

## DISCLOSURE

The author has no potential conflicts of interest to disclose.

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