Dear editorial board,

In this manuscript, we report the results of our small-area level investigation of health inequalities in a hard-to-study province due to its population size, with a particular focus on community health inequalities across rural-urban continuum. This study employed, as a basis, a set of area units substantially smaller than those employed in previous studies, and were designed to represent ‘community’ entities. We examined the inequalities in life expectancies at birth for females and males across these small-areas by 7 settlement types locally defined for the province. We found that, while settlements considered as rural are generally disadvantaged in health, most of the effects were attenuated once measures of material deprivation and social isolation were taken into account, with an exception of one rural type (the second most rural called ‘village & settlement clusters’). Our study also revealed some important variations within an area unit which is commonly used for area-level studies of health inequalities in Canada that encompass rural (and urban) regions.

The detail pictures of complex relationships between health and health determinants in rural regions, whether in Canada or elsewhere, can only be clarified by compilation of more detailed studies investigating variations in health statuses and health determinants at small-area level. In addition, regional geographical specificity has to be taken into account if diversity of rural communities were to be fully understood. Research therefore needs to find ways to overcome various data challenges in order to extend the small-area, rural-urban inclusive investigation of health inequalities to hard-to-study regions. This study is a step forward to better understand the distribution of any health conditions across rural-urban continuum for a small region, using area units that are much smaller than those used in previous studies.

We believe that our findings could be of interest to the readers of BMC Public Health, especially public health researchers and practitioners concerned with
evidence-based policy decision making in a jurisdiction encompassing both rural and urban communities. We hope that the editorial board will agree on the interest of this study.

Sincerely yours,

Mikiko Terashima on behalf of the authors

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