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## Hypoxia exposure of short-term residents in the Qinghai-Tibet Plateau

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The unique habitat and plateau hypoxia in the Qinghai-Tibet Plateau have always troubled tourists. The study of plateau hypoxia is of great significance to improve tourists' well-being and formulate related policies. In this paper, based on the data of oxygen content and blood oxygen saturation of short-term residents in the Qinghai-Tibet Plateau, Qinghai Province was divided into severe hypoxia region, hypoxia region and non-hypoxia region according to the established relationship between blood oxygen saturation and oxygen content. Combined with the results of the spatialization of short-lived population, the exposure numbers of short-lived population under different hypoxic zones in summer and winter were calculated. The results show that: 1) The distribution of tourist population in Qinghai Province presents a distribution rule of "one center gathering", and the population is mainly concentrated in the eastern region. The population density is high in the main urban areas with dense POI, and very low in woodland, remote mountain and other areas. 2) With the decrease of oxygen content, blood oxygen saturation decreased exponentially. 3) Compared with winter, short-term residents is more suitable to travel to the plateau in summer.