Objective: It has been believed that hot spring bathing has therapeutic effect for certain lifestyle-associated diseases. In addition, medical preventive effect of hot spring bathing to diseases has not been well known. In order to investigate preventive effect for lifestyle associated diseases, we performed an epidemiological study about the relationship between personal habits of hot spring bathing and past history of diseases of aged population over 64 years old in Beppu city, which has the most hot spring fountainheads in the world. Beppu city also bear 10 kinds of spa of all except radioactivity hot spring.

Figure 1  The percentage of past diseases in daily and non-daily spring bathing users.  
Abbreviations are as follows; Ev and NEv: Daily and Non-daily hot spring bathing, IHD: Ischemic heart disease, HBP: Hypertension, Asthma B: Bronchial asthma, DM: Diabetes mellitus, HL: Hyperlipidemia, Dis: disease, Chr Hep: Chronic hepatitis. The significant difference between Ev and NEv are shown as red columns.
Materials and Methods: There are about 35,000 Beppu citizens over 64 years old. We sent the questionnaires to randomly chosen 20,000 people among them, asking the personal history of hot-spring-bathing and disease-history in Nov 2012. We received 11,146 replies filled in Jan 2013. Results: We received filled-out questionnaires from 4,706 men and 6,352 women. Forty-eight percent of the replying participants take a hot spring bath daily. The age distribution of the respondents was comparable admittably to that of all Beppu citizens registered over 64 years old. Age adjusted, hot spring user showed less rate of some diseases. The results showed that daily hot spring bathing was associated with past history of less diseases of some, such as ischemic heart disease, apoplexy, hypertension, bronchial asthma, diabetes mellitus, chronic renal disease, and depression. As for this tendency, the difference was seen among men and women (Figure 1). Moreover, the medical effect of the hot spring had the higher one where a hot spring use period is longer.

Conclusion: This observation suggests that daily hot spring bathing contributes to lessen the susceptibility of some of life style associated diseases.

Keywords: Hot spring bathing, Past history of disease