Abstract

There are positive associations between respiratory and skin infections and the lack of in-home piped water in rural Alaska, and such water-washed diseases are often attributable to insufficient water quantities for basic hygiene activities (e.g., hand washing, bathing, laundry services). Optimizing water sources could increase domestic household water availability, thus improving hygiene practices and reducing the risk of infection. Because household technologies designed to increase water availability can be extremely expensive to build, operate, and maintain in rural Alaska, it is important to understand minimum requirements for healthy water use practices (e.g., minimum heating and volume requirements). Thus, the study herein provides an assessment of the impact that washbasin water temperature and volume have on hand washing duration and thoroughness. In a controlled study of volunteer hand washers, it was found that while water temperature had no significant effect on hand washing time or thoroughness, water volume did have a positive association with both hand washing measures. The data suggest that attention and resources be focused on providing increased water quantities in the home, as opposed to heating water used for hand washing.