Title
Areca (betel) nut chewing and metabolic conditions

Abstract
Oral cancer is the most widely studied health outcome linked to areca (betel) nut chewing, or mastication of the *Areca catechu* fruit or seed often combined with slaked lime, tobacco, and the *Piper betle* (leaf). A growing area of research is the influence of betel nut chewing on metabolic conditions. To investigate betel nut chewing and metabolic conditions, including obesity and related health characteristics, a cross-sectional study of 122 adults was conducted in Guam between July 2013 and October 2014. Information on demographics, medical history, dietary intake and betel nut use were collected. Height and weight measurements were collected to calculate body mass index or BMI (weight in kg/height in m^2) as an indicator of weight status. Waist was also measured to calculate waist-to-height ratio as an indicator of health risk status. Health characteristics were compared across the three chewing groups: 64 current betel nut chewers, 37 former betel nut chewers, and 21 non-betel nut chewers. Strong evidence of differences by betel nut exposure were seen by ethnicity (predominantly Chamorros across all chewing groups), BMI (predominantly obese among former betel nut chewers), waist-to-height ratio (predominantly high risk among current and former betel nut chewers), history of self-reported stroke (predominant among former betel nut chewers), and alcohol consumption (highest number of drinks among current betel nut chewers). The evidence of poor metabolic conditions seen among current betel nut chewers support the need for a comprehensive approach to betel nut prevention strategies, to include the prevention of oral cancer and metabolic conditions. The evidence of poor metabolic conditions seen among former betel nut chewers warrants additional advanced study designs to rule out temporal ambiguity, and to further investigate any health implications of betel nut cessation.