Insurance Scheme: Inequality in Untreated Caries and Tooth Loss

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Abstract

Objectives: In Thailand, access to dental care services varies based on different insurance schemes. Our objective was to determine the association of untreated caries and tooth loss with insurance schemes among adult population in Thailand.

Methods: This is a cross-sectional study. Secondary data from oral examinations and a questionnaire administered during Thailand's National Oral Health Survey 2017 were analyzed. Untreated caries and tooth loss were used as continuous dependent variables. Based on the insurance schemes, participants were categorized into four groups: Universal Coverage Scheme (UCS), Civil Servant Medical Benefit Scheme (CSMBS), Social Security Scheme (SSS), and "others" (uninsured, do not use, do not know). Poisson regression with robust variance and sampling weights was used to calculate the ratio of means (RM), and 95% confidence interval (CI) was used for untreated caries and tooth loss, with adjustments for age, gender, and location.

Results: A total of 4,534 participants were included. The mean age and number of untreated caries and tooth loss were 39.6±2.9 years, 0.9±1.7 teeth, and 2.2±3.1 teeth, respectively. In covariate-adjusted models, participants under the UCS showed a significantly higher chance of untreated caries compared to those under the CSMBS (RM=1.23, 95% CI=1.04–1.45). Regarding tooth loss, participants under the others category had a substantially higher chance of tooth loss compared with those with the CSMBS. (RM=1.37, 95% CI=1.02–1.85).

Conclusions: Insurance schemes are predictors of untreated caries and tooth loss. Expansion of coverage of all insurance schemes to facilitate access to dental services is required.

Keywords: access to care, epidemiology, National Oral Health Survey, untreated caries