Our purpose was to examine the dental health practices and needs of low-income persons to inform nutrition education and practice.

Study Design: Cross-sectional survey determined to be exempt upon review by the Institutional Review Board of The Pennsylvania State University, administered as part of the evaluation of the digital photo frame program, Eating for Healthy Teeth and A Great Smile.

Methods: Flyers and cards were placed in free and community clinics serving low-income persons in Pennsylvania. English-speaking, Pennsylvanians 18 years and older were invited to visit the study website to participate and receive a $15 Amazon e-card.

Data Collection: Eligible persons consenting to the study were given access to an online survey using the Qualtrics platform (Provo, UT). Survey completion took 15-20 minutes. Data were collected over a 4-month period.

Data Analyses: Data were analyzed using SPSS 22.0. Data were assessed for normal distribution and analyzed using descriptive statistics, measures of central tendency and Chi-square as appropriate.

Results:

- 59% had not visited a dentist in three or more years (24%).
- Nearly half (43%) did not have a family dentist.
- 60% could not afford dental care.
- One-third felt life was generally less satisfying due to the problems with their teeth, mouth or dentures (30%).
- Job/School difficulties for 30%.
- 32% avoided foods for dental problems.
- 30% reported a toothache or sensitive teeth in the past six months.
- 21% worried about money for food.
- 52% used at least 1 nutrition assistance program; 20% used 3 or more assistance programs.
- Very low food security (n=13), Low food security (n=12), High/Marginal food security (n=52).
- Had low or very low food security (34%).
- Too often worried about having enough money for food (21%).

Conclusions and Implications:

- Dental problems were more prevalent in food insecure persons, especially in food insecure persons.
- Dental health practices for this sample recruited from low income venues were not adequate for nutritional health.
- Poor dental health affected quality of life and nutrition practices especially in food insecure persons.

Dental health education is a vital component of nutrition education for low-income persons.