

Indicator Domain: OUTCOME

Indicator C.9. Percentage of Third-Grade Children with Dental Caries Experience (Treated or Untreated Tooth Decay)

Source: Association of State and Territorial Dental Directors (ASTDD), [Basic Screening Survey](#) (BSS)

1. Description

Percentage of third-grade children with dental caries experience (treated or untreated tooth decay)

- **Numerator:** Number of third-grade children screened with treated or untreated tooth decay
- **Denominator:** Number of third-grade children screened

2. Framework Domain

Outcome

- Health status: The health state of a person or change in health state resulting from health care

3. Level of Reporting

This is a state-level, population-based surveillance measure of the burden of oral disease among third-grade children.

4. Data Source

Clinical screening examinations using the BSS tool developed by ASTDD.

5. Data Elements

| | |
|-----------------------------------|---|
| Critical Data Elements | |
| Third-grade BSS | |
| Children screened | |
| Dental caries experience | |
| Available Stratification Elements | |
| Race/ethnicity | <u>Option 1</u> Non-Hispanic White Hispanic and Non-Hispanic other Unknown/missing <u>Option 2</u> Hispanic Non-Hispanic White Non-Hispanic Black Non-Hispanic other Unknown/missing |

6. Measure Guidance

- **Data-collection year.** Indicate the school year of the most recent third-grade BSS. Also indicate when the next survey is planned.
- **Adjustment for sampling methodology.** The data should be adjusted for the complex sampling scheme, following guidance provided by ASTDD.⁴³

7. Measure Calculation: Detailed Specification

A. Denominator

Step 1: Identify the number of children screened in the state during the most recent third-grade BSS.

YOU NOW HAVE THE DENOMINATOR (DEN) COUNT: Children screened in the state during the most recent third-grade BSS

B. Numerator

Step 1: Determine the subset of the denominator (number of children screened) who were identified as having any caries experience in the **primary or permanent** dentition (treated decay or untreated decay):

- a. If treated decay=YES, OR
- b. If untreated decay=YES, then include in numerator; STOP processing.
- c. If a OR b is not met (i.e., if treated decay=no AND untreated decay=no), then do not include the child in the numerator

YOU NOW HAVE THE NUMERATOR (NUM) COUNT: Children screened in the state during the most recent third-grade BSS who have caries experience

C. Denominator Exclusions/Exceptions

Exclude children from the denominator with:

- a. Missing variables for **both** treated decay and untreated decay;
- b. Treated decay=NO **and** untreated decay=missing
- c. Treated decay=missing **and** untreated decay=NO

D. Reporting Stratifications

- a. Race/ethnicity (Hispanic, Non-Hispanic White, Non-Hispanic Black, Non-Hispanic other race, Non-Hispanic multiple race, unknown/missing)

Note: If data limitations necessitate, race categories can be collapsed as: Non-Hispanic White, Hispanic and Non-Hispanic other race, and unknown/missing

⁴³Association of State and Territorial Dental Directors. 2017. [Guidance on How to Analyze Data from a School-Based Oral Health Survey](#). Reno, NV: Association of State and Territorial Dental Directors.

E. Measure Score

Report:

- a. Number of individuals excluded from denominator, unweighted
- b. Number in denominator (after exclusions), unweighted sample count
- c. Number in numerator, unweighted sample count
- d. Number in denominator, weighted
- e. Number in numerator, weighted
- f. Measure score (NUM/DEN), weighted, with 95% confidence interval
- g. Measure score, weighted, stratified by [reporting stratification] with 95% confidence intervals and unweighted denominator count
- i. Whether positive or passive consent is used and the response rate

8. Limitations

BSS tools were developed by ASTDD to help state and local public health agencies monitor the burden of oral disease at a level consistent with *Healthy People* objectives. BSS tools were not designed to measure small changes in disease levels and are probably not appropriate for use in oral health research.⁴⁴

The BSS is typically conducted at a recommended interval of every 5 years within a state. Consequently, this outcome indicator will not be updated annually.

If a state uses positive consent, the information is representative only of children whose families returned a consent form. ASTDD encourages states to use passive (opt-out) consent.

9. Additional Notes

Additional information on the BSS is available [online](#).

⁴⁴ Association of State and Territorial Dental Directors. 2017. [The Basic Screening Survey: A Tool for Oral Health Surveillance Not Research](#). Reno, NV: Association of State and Territorial Dental Directors.