BASIC SCREENING SURVEYS

Monitoring Community Oral Health

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TODAY’S AGENDA

- Public health surveillance
- Oral health surveillance
- Basic Screening Survey methodology
- Data dissemination
INSTITUTE OF MEDICINE - 1988
3 CORE FUNCTIONS FOR PUBLIC HEALTH

ASSESSMENT

POLICY DEVELOPMENT

ASSURANCE

IOM recommends that every public health agency regularly and systematically collect, assemble, analyze, and disseminate information on community health status to carry out the assessment function.

Public health agencies accomplish this task through public health surveillance - the ongoing, systematic collection, analysis and interpretation of health data.
The purpose of public health surveillance is to provide actionable health information to guide public health policy and programs.

The purpose of an oral health surveillance system is to **use data** to protect and promote population-wide oral health.
<table>
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<tr>
<th>Local health jurisdictions (LHJ)</th>
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<td>• Infectious disease surveillance because LHJs are the contact point for notifiable disease reporting, case investigations and control interventions</td>
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<th>State health departments</th>
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<td>• Noninfectious disease surveillance because noninfectious disease interventions are often long-term, statewide and resource-intensive</td>
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<th>Federal government</th>
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<td>• Monitoring national trends, maintaining national surveillance systems, coordinating multistate responses, supporting state-based surveys and interfacing with the World Health Organization on global health concerns</td>
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**HISTORIC SURVEILLANCE ROLES & RESPONSIBILITIES**
Based on the non-communicable nature of oral health outcomes, *oral health monitoring generally falls within the domain of state agencies*, with federal agencies responsible for monitoring national trends.

- Expanding role for local jurisdictions
Prior to the turn of the 21st century, however, state-based oral health surveillance systems were virtually nonexistent.
TWO OVERARCHING REASONS

NO GUIDANCE ON WHAT AN OH SURVEILLANCE SYSTEM SHOULD INCLUDE

NO COST-EFFECTIVE WAY TO MONITOR ORAL DISEASE AT STATE/LOCAL LEVEL
**GUIDANCE ON ORAL HEALTH SURVEILLANCE SYSTEMS**

Developed and approved by Council of State & Territorial Epidemiologists (CSTE)

October 2013

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**Oral Health Surveillance Plan**

**Core Indicators**

- **Oral Health Outcomes**
  - 3rd Grade Oral Health Status (every 5 years)
  - Permanent Tooth Loss for Adults (every 2 years)
  - Incidence of & Mortality from Oral and Pharyngeal Cancer (every year)

- **Access to Care**
  - Annual Dental Visit for Medicaid/CHIP Children (every year)
  - Annual Dental Visit for Children 1-17 Years (every 4 years)
  - Annual Dental Visit for Adults & Adults with Diabetes (every 2 years)

- **Intervention Strategies**
  - Community Water Fluoridation (every 2 years)

- **Workforce, Infrastructure, Policy**
  - Data from Synopses of State & Territorial Dental Public Health Programs (every year)

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**Publicly Available Actionable Data to Guide Public Health Policy and Programs Disseminated in a Timely Manner**

COST-EFFECTIVE METHOD FOR MONITORING ORAL DISEASE

- Originally published in 1999
- Collaborative effort
  - Ohio Department of Health
  - ASTDD
  - CDC
- BSS toolkit free to ASTDD members
  - $25 for non-members
Prior to 1999, oral health was measured using DMFT/DMFS index
- 100+ variables per person
- Time consuming
- Expensive
- Difficult to analyze
- Took years to publish results
HISTORICAL CONTEXT

The Problem

Need a better system for monitoring oral health at the state and local level

To Address the Problem

Convened expert panel to develop new oral health monitoring system

Created 2 New Systems

Panel created (1) Advanced Screening Survey and (2) Basic Screening Survey

Adopted New System

ASTDD/CDC adopted and began supporting Basic Screening Survey
WHAT IT IS:
- A tool for oral health surveillance that monitors disease at the person (not the tooth) level
- Quick – 1 minute per child (longer for adults)
- Relatively easy to analyze
- Validated for surveillance

WHAT IT ISN’T:
- A tool for research that monitors disease at the surface or tooth level
- Not designed to test hypotheses
Target Populations for BSS

- Selected because of ability to have similar sampling strategies across states
  - Head Start
  - Kindergarten
  - 3rd Grade (ASTDD/CDC’s top priority)
  - Vulnerable Older Adults

Frequency
SAMPLING FRAME FOR TARGET POPULATIONS

- **Head Start**
  - Representative sample of Head Start centers

- **Kindergarten and/or 3rd Grade**
  - Representative sample of public, public charter and Bureau of Indian Education schools

- **Vulnerable Older Adults**
  - Representative sample of senior meal sites and/or
  - Representative sample of long-term care facilities
RECOMMENDED BSS INDICATORS

**HEAD START**
- Untreated Decay
- Treated Decay
- Treatment Urgency

**KINDERGARTEN & 3Rd GRADE**
- Untreated Decay
- Treated Decay
- Dental Sealants (3rd)
- Treatment Urgency

**VULNERABLE OLDER ADULTS**
- Dentures & Denture Use
- Number of Natural Teeth
- Untreated Decay
- Root Fragments
- Need for Periodontal Care
- Soft Tissue Lesions
- Treatment Urgency
CHILD INDICATOR OVERVIEW
UNTREATED DECAY

- Does the child have any cavities that have not been treated (no/yes)?
- Untreated decay – must have breakdown of the enamel surface
- Only cavitated lesions are considered untreated decay
Has the child had dental treatment because of decay (no/yes)?

Includes

- Amalgam and composite restorations
- Glass ionomer restorations
- Crowns placed because of decay
- Teeth extracted because of decay
Does the child have a sealant on 1+ permanent molars (no/yes)?

- Transparent
- Opaque
- Glass Ionomer
3 levels based on how soon a child should visit the **dentist** for a clinical diagnosis and any necessary **restorative dental treatment**

- Urgent need (pain or infection)
- Early care needed
- No obvious problem
The BSS is a screening, not a clinical examination
  - May underestimate prevalence of disease – THIS IS NOT A PROBLEM
BSS can be completed by dental professionals or school nurse (if trained)
Must use appropriate methods for selecting a sample of schools/sites
Must use appropriate methods for analyzing data
BASIC SCREENING SURVEY
TIPS, TRICKS AND A FEW UNFORTUNATE FACTS OF LIFE
BSS TIP #1
ASK FOR HELP

Ask for help. Not because you are weak. But because you want to remain strong.

Les Brown
BSS TIP #1
ASK FOR HELP

Overall methods
Sample selection
Data collection forms, data entry software
Working with schools
Screener training
Data analysis
BSS TIP #2
SLOW DOWN, DON’T BE IN A HURRY

- Start planning 9-12 months in advance
BSS TIP #2
SLOW DOWN, DON’T BE IN A HURRY
BSS TIP #3
COLLABORATE WITH YOUR DEPARTMENT OF EDUCATION
A FEW BSS TRICKS

- Request waiver for IRB review – public health activity not research
- Passive (opt-out) consent works best
- Have DOE cosign letters to superintendents/principals
- Hire a coordinator with school experience (retired school nurse)
- Create MOU with DOE for data merge – best way to get demographics
SOME UNFORTUNATE FACTS OF LIFE
UNFORTUNATE FACTS OF LIFE

Third Grade BSS

Older Adult BSS

“The nine most terrifying words in the English language are: I’m from the government and I’m here to help.”
—Ronald Reagan
DATA DISSEMINATION
TURNING DATA INTO ACTION
THE IMPORTANCE OF DATA

“In God we trust; all others must bring data.”

EDWARD DEMING

William Edwards Deming, 1900-1993
Engineer & Statistician
DATA SERVE MANY PURPOSES

- To describe
- To inform
- To educate
- To persuade
CDC’S ORAL HEALTH DATA PORTAL

Latest data
Percentage of students with untreated tooth decay
Breakdown: Grade – Third Grade

https://www.cdc.gov/oralhealthdata/
CREATE A MESSAGE YOUR AUDIENCE WILL “BUY”
Define the mission of your information campaign

What change do you want?

- Legislature expands Medicaid dental to include adults?
- Head Start programs allow quarterly fluoride varnish visits?
- More dentists provide care to pregnant women?
STEP 2 – AUDIENCE

- **Identify & understand your audience**
  - Who do you want your message to reach?
    - All people on earth?
    - Everyone in San Francisco?
    - All staff at a FQHC?
    - Primary care physicians at a FQHC?
  - Each audience requires its own messages, media and messengers
Craft a message for each specific audience

Messages should answer three questions
- Why should the audience care?
- What are you offering?
- What's the call to action?
Select the “media” for your message

May need to pick several media to reach each audience

Types of media

- Formal written reports
- Informal written data presentations
- Fact sheets & data briefs
- Infographics
- Social media
- On-line data platforms – Scoreboards/Dashboards
Select the messenger you want to carry your message

- Messengers are the well-placed and highly leveraged people who have influence over your audience
- Messengers convey and amplify your message to your audience through the media you've chosen
Data Collection, Assessment and Surveillance Committee

The committee oversees all of the activities of the Association regarding state-based oral health surveillance, the National Oral Health Surveillance System (NOHSS), Behavioral Risk Factor Surveillance System (BRFSS), Youth Risk Behavior Surveillance System (YRBS), Pregnancy Risk Assessment Monitoring System (PRAMS), Synopses of State Dental Public Health Programs (State Synopses), Early Screening Survey (ESS) training and technical assistance, and any chronic disease or maternal and child health related data requests or technical assistance. A coordinator and various advisory groups work with committee members to accomplish all objectives. The coordinator and an additional consultant provide technical assistance and training to states on oral health assessment and surveillance.
ANY QUESTIONS?