

# *Measuring Outcomes*

## How To Use Outcomes

**P**ediatric oral health supervision promotes oral health throughout childhood, while laying the foundation to ensure that it lasts a lifetime. In the developmental sections, the educational, behavioral, and physical outcomes define the goals of health supervision for each stage of life. These oral health outcomes are comprehensive, attainable, and measurable.

*Educational outcomes* address information provided to children and families concerning oral health, self-care, and appropriate professional intervention. Educational outcomes can be measured by the professional's efforts to provide information and by the family's growing awareness and knowledge of oral health. *Behavioral outcomes* address changes in lifestyle that contribute to both short-term and long-term oral health. Measuring behavioral outcomes is more difficult, but gives a better indication of whether the child, adolescent, or family is actually performing the desired oral health practices. *Physical outcomes* are objective health markers that indicate the status of the child or adolescent. Physical outcomes can be assessed at periodic examinations.

Assessing a combination of educational, behavioral, and physical outcomes strengthens the cross-sectional view of the child or adolescent at each point in time. A child may understand what causes dental caries, but may not necessarily use that information to change

behavior. A child's teeth may appear healthy in an examination, but that health status may be only temporary without the knowledge and positive health behaviors necessary to preserve it. However, in combination, the educational, behavioral, and physical outcomes provide the most valid and comprehensive view of the oral health of a child or adolescent, reinforcing each other or suggesting discrepancies that need further attention. Moreover, identifying specific educational, behavioral, and physical outcomes encourages broader and more effective use of the guidelines.

Outcomes can serve a variety of functions in health supervision. In quality assurance, outcomes are important measurable health indicators that both clinicians and families can identify and track. Outcomes also play a major role in determining periodicity. If outcomes are not achieved, a follow-up visit might be scheduled to address a risk factor or to determine whether an unrealized outcome has been attained. If a child and family achieve all outcomes, the scheduled intervals between visits would probably be longer, and the next point of intervention would probably be determined by developmental changes.

## A Model for Outcome Measurement

The outcomes identified in each developmental section are designed for the individual. For infants and young children, however, the parents or caregivers will be responsible for achieving the educational and behavioral outcomes on behalf of the child. Over time, the growing child or adolescent will gradually assume more responsibility for achieving all outcomes relating to health.



## Educational Oral Health Outcomes

While knowledge and attitudes do not strictly predict health behaviors, they can serve as a basis for developing healthy habits. Therefore, oral health supervision needs to *educate* as well as to address physical and behavioral concerns.

Educational outcomes of oral health supervision include:

- 🌀 Knowledge of oral disease and conditions. The individual has a basic understanding of caries and inflammatory periodontal disease, as well as other oral health conditions such as injuries. The individual and family also know their personal risk status for these diseases and conditions and understand the preventive care and healthy habits necessary to maintain health.
- 🌀 Understanding of personal responsibility for oral health. The individual understands and appreciates the importance of assuming primary responsibility for personal oral health promotion and recognizes the limited role of the dental professional and other health professionals. Further, the individual recognizes that lifelong tooth retention and normal oral function are appropriate and attainable.
- 🌀 Healthy attitudes about dental care. The individual feels comfortable in the dental treatment setting and seeks regular, ongoing, appropriate, preventive care.
- 🌀 Effective emergency management. The individual knows how to recognize and manage common oral emergencies, including traumatized teeth and transient gingival and mucosal conditions that cause pain and need urgent care.
- 🌀 Appropriate adaptive behaviors to meet changing oral health needs. The individual understands and appreciates that oral health status continues to be influenced by age-dependent factors throughout life and accepts responsibility for adjusting health habits and preventive care to promote oral health.

## Behavioral Oral Health Outcomes

Behavioral outcomes of oral health supervision include:

- ☞ Healthy dietary habits. The individual's dietary habits are consistent with good nutrition, and carbohydrate consumption patterns are consistent with the preservation of healthy teeth.
- ☞ Effective oral hygiene skills and practices. The individual has both oral hygiene skills and a commitment to oral hygiene practices including flossing, brushing, and fluoride use at the frequency needed to maintain personal oral health.
- ☞ Avoidance of harmful habits. The individual avoids harmful habits such as using tobacco, alcohol, and other drugs that contribute to oral problems.
- ☞ Oral protective habits. The individual uses protective gear such as safety belts, bike helmets, and mouth guards appropriately, and avoids dangerous habits and unsafe items such as baby walkers.
- ☞ Appropriate use of oral health aids. The individual uses over-the-counter medications appropriately, including fluoride rinses and other aids such as oral irrigation to maintain oral health.
- ☞ Effective parenting behaviors. The individual uses parenting skills appropriately to ensure the child's oral health, including effective oral hygiene and appropriate feeding patterns.

## Physical Oral Health Outcomes

Good oral health is defined as having functional, disease-free oral and perioral structures.

Physical outcomes of oral health supervision include:

- ☞ Dental health. The individual's teeth are free from congenital or developmental disabilities, injuries, and carious lesions.
- ☞ Occlusal health. The individual has a functional, aesthetic, and stable bite.
- ☞ Periodontal health. The individual's oral soft tissues are free from pathology, and their form and function are within normal limits.

These objectives can best be achieved when the family and the dental and health professionals work together in partnership. To develop healthy teeth, children need good medical and nutritional support during the prenatal, infant, and early childhood periods so their teeth form in a healthy environment. To maintain teeth free from injury, children and families need anticipatory guidance concerning injury prevention and appropriate use of protective gear such as bike helmets, mouth guards, car safety seats, and safety belts. Children require early counseling, risk assessment, and anticipatory guidance if their teeth are to remain healthy and free from dental caries. They also need to develop healthy habits, including good dietary habits and oral hygiene practices.



