

LIBERTY Dental Plan

DENTAL DISEASE MANAGEMENT

Linking dental with primary care to improve overall health through education, benefit design and outreach.



Introduction:

A young woman visits her obstetrician regularly for prenatal care but does not see a dentist although her gums bleed and she has a number of cavities. She experiences premature labor and delivers a baby weighing only 3 ½ pounds. Could this situation have been avoided?

A 4-year-old is treated for an abscessed tooth and ten cavities. He has health and dental insurance but the dentist does not think about contacting the child's pediatrician to assist helping the mother manage his diet and nutrition.

A physician tries everything to help an adult patient control his blood sugar -except look in his mouth. Had he done so, he would have discovered periodontal disease and decayed and infected teeth. Had he seen the same infection on the patient's hand or foot, he would have recognized the relationship to the elevated blood sugar

and treated the infection aggressively.

Each of these three examples demonstrates the disconnect between the mouth and the rest of the body contributing to poor health outcomes -a disconnect that dramatically increases health care costs.

In spite of our increasing knowledge of, and need for, a closer alignment of all aspects of the US health care system, the fields of dentistry and medicine remain very much distinct disciplines and separate professions. Each has its own characteristic education, organizations, financing, licensing, regulations, research and care delivery patterns. Each has its own distinct professional culture, and seldom do they meet in common purpose.

Periodontal Disease:

Periodontal disease is a chronic bacterial infection that affects the gums and bone supporting the teeth. Periodontal disease can affect one tooth or many teeth. It begins when the bacteria in plaque (the sticky, colorless film that constantly forms on teeth) causes the gums to become inflamed.

Periodontal disease affects 22 percent of all Americans, but many health professionals, and the lay public, aren't aware of the connection between periodontal disease and overall health problems. It is during the stage of periodontal disease that researchers have found a link to other diseases. Most periodontal diseases can be prevented. Untreated adult periodontal disease can cause other serious health problems.

www.libertydentalplan.com

LIBERTY Dental Plan

Studies:

There is an increasing amount of evidence that support the inter-relationship between periodontitis and systemic conditions. Systemic conditions that have been addressed include pre-term low birth weight babies/adverse pregnancy outcomes, diabetes and cardiovascular disease.

1. Pre-term Low Birth Weight Babies/adverse pregnancy outcomes:



Studies have shown a 7-fold increase in the risk of pre-term low birth weight in women with periodontal disease. Pre-term low birth weight is a problem encountered in most communities at varying levels of prevalence. Approximately 500,000 infants or 12% of all births in the US were delivered pre-term in 2003 and 7.8% of infants were classified as having low birth weight. Pre-term low birth weight babies have a frequent aftermath of serious functional abnormalities such as asthma, mental retardation, cerebral palsy and poor motor skills throughout life.

Studies have shown that dental intervention (Dental Prophylaxis or Non- surgical Periodontal Treatment) by the second trimester reduces the risk by 70%.

2. Diabetes:

A two-way relationship between periodontal disease and diabetes exists, according to study published in the Journal of Periodontology. Diabetics are more likely to develop infections like periodontal disease, and periodontal disease makes it more difficult for people who have diabetes to control their blood sugar. Studies have shown that treatment of periodontal disease can result in improved control of blood sugar levels. Claims data show that members who received dental prophylaxis and/or periodontal treatment had a significant lower per member per month medical cost than members who did not seek these treatments.

Furthermore, the study indicates that people with diabetes and periodontal disease are more prone to recurrent periodontal abscess (areas around teeth that are inflamed, infected and painful).



3. Cardiovascular Disease

Bacteria from the mouth are found in the walls of blood vessels in the heart of people who die from cardiovascular disease. According to two studies in 2005, researchers have found evidence that the amount of bacteria in subgingival plaques (the deep plaques in periodontal pockets and around the teeth) contribute to an individual's risk of a heart attack. These studies show a 1.2 to 2-fold increase in the incidence of Cardiovascular Disease in people with Periodontal Disease. Claims data has shown that Coronary Artery Disease (CAD) members that received Dental Prophylaxis and/or Periodontal treatment had much lower medical costs than members that did not receive these treatments.

Research, as reported by "Consumer Report on Health", has also found that there is a 40 to 70 percent rise in heart attacks following periodontal tooth loss and also people with periodontal disease are twice as likely to suffer from coronary artery disease as those without periodontal disease. This suggests that it may be especially important for people with periodontal disease to be aware when they have other risk factors for heart disease such as high cholesterol.

Dental Disease Management; Education & outreach to improve the health and productivity of our members:

Disease management is defined as a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant.

LIBERTY Dental Plan's Dental Disease Management Program is designed to support the clinician-patient relationship and plan of care. The Program emphasizes prevention of disease-related exacerbations and complications using evidence-based practice guidelines and patient empowerment tools. The goals of this program include:

- Improving patient self-care through education, monitoring, and communication,
- Improving Medical and Dental practitioners performance through feedback and/or reports on patient progress,
- Improving communication and coordination of services between patient, dentist, physician, and Health Benefit Administrator,
- Improving access to care, including prevention services.



The following functions are the main components LIBERTY's Dental Disease Management program:

- I. Awareness
 - a. Educate members
 - b. Educate providers
- II. Identify at-risk members
 - a. Identify at-risk members with specific medical disease (mining medical claims for diabetes, CVD, Pregnancy...)
 - b. Identify at-risk members with Periodontal disease (mining dental claims for periodontal dx)
- III. Intervention
 - a. Outreach to at-risk members; involve the member in the solution
 - i. Focused letter campaigns
 - ii. Case-management/Telephonic campaign
 - iii. Information given to at-risk members to Opt-in specific programs
 - b. Involve other significant health providers
- IV. Provide enhanced dental benefits to at-risk members
 - a. Change benefits to encourage compliance
 - b. Reward members who join wellness programs
- V. Measure results
- VI. Modify and reapply intervention