Re-Thinking Group Dental

BY: **ROSS PERRY**

Fifty years ago when the first employer-sponsored group dental benefit was created in Canada, there was little scientific information about the cause of dental decay and gum disease or how poor oral health impacted general well-being. Back then, employees and their dependents simply got cavities or suffered from sore and bleeding gums. When they did, they went to the dentist for periodic surgical care largely at their employers' expense.

Science has since marched on to identify the cause of cavities and sore gums and, just as important, the interrelationships between these oral diseases and other medical conditions.

But the 'old' dental benefit remains largely unchanged. From a scientific and medical perspective, it has become an anachronism.

This requires us to re-think the conventional group dental plan and transform it into a healthcare program based on scientific evidence.

Poor Oral Health?

Cavities and gum disease, collectively known as poor oral health, emerge when the bacteria in the dental plaque become unbalanced; some bacteria begin to dominate the community of micro-organisms and become destructive to the teeth and gums. Scientists call this microbial shift 'oral dysbiosis' as the plaque no longer is symbiotic or compatible with body. Rather, when oral dysbiosis happens, the bacteria in the plaque attack the tissues in the mouth and then the body.

Oral dysbiosis happens commonly with age, with other chronic diseases such as type 2 diabetes, cognitive decline, and Parkinson's disease. It also occurs when adults take a lot of medications, with changes in immunity, with treatment for cancer, and when the adult can no longer maintain good oral hygiene.

There are several bacteria in the mouth which are destructive or pathogenic. Some live on the tooth surface while others live at or below the gum line. Three bacteria are noteworthy. Streptococcus mutans, at a high concentration on the teeth, cause cavities and destroys crowns. Porphyromonas gingivalis and treponema denticola live along and below the gum line and cause the gums to bleed when they dominate the plaque. Importantly, when they reach the stage of oral dysbiosis, these bacteria are commonly unaffected by brushing and flossing, by dental surgery, and dental cleanings.

About four in 10 Canadian adults have poor oral health. It is the most common chronic disease next to hypertension, and it is one of the most expensive conditions for the Canadian family, even if the family has a group dental plan.

Poor oral health is consequential on overall health and healthcare spending.

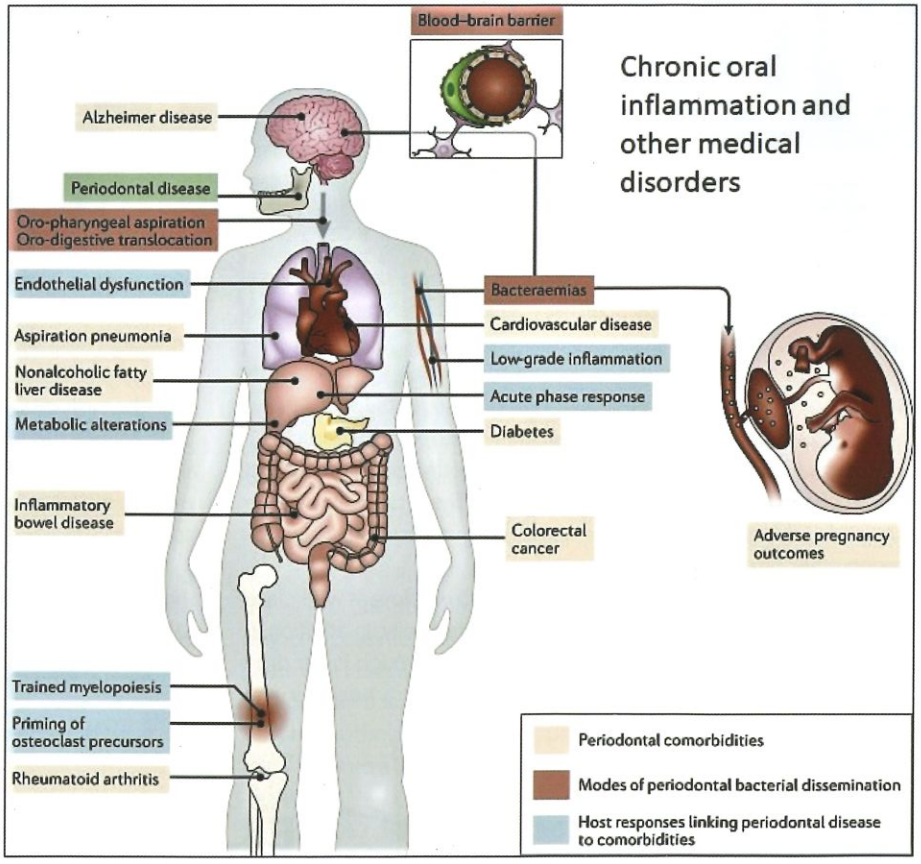
What happens in the mouth, does not stay in the mouth. Oral dysbiosis is closely linked to type 2 diabetes,[1] hypertension,[2] atherosclerosis,[3] stroke,[4] mood disorders,[5] COPD,[6] IBD,[7] oral and colorectal cancer,[8] chronic kidney disease,[9] dementia[10], and general inflammation[11] in the body (See *Figure 1*). In this sense, oral dysbiosis is a significant medical problem deserving attention in every aspect of healthcare benefits.

The biological pathways between bacterial infections in the mouth and major organs in the body involves oral bacteria jumping into the blood stream or migrating into the lungs and the gut via breathing and swallowing, respectively.

Major Spenders

Because of these interrelationships between oral dysbiosis and major medical problems, adults with recurrent dental decay or prolonged gum disease are major spenders on both dental services as well as medical, pharmaceutical, and hospital services. Several studies by American healthcare insurers report that adults with chronic oral inflammation spend 17 per

Figure 1



Source: Hajishengalis G, Chavakis T. 2021. Local and systemic mechanisms linking periodontal disease and inflammatory comorbidities. Nat Rev Immunology. January.

cent or more on medical care than peers with a healthy mouth.[12]

Bacterial infections in the mouth, as elsewhere on the body surface, are best managed with antiseptics using a regimen which minimizes applications, maximizes patient adherence, and avoids antimicrobial resistance. Moreover, because most Canadian adults with poor oral health irregularly visit the dentist, the antiseptic approach also needs to be delivered in the medical practice, the pharmacy, and the seniors' residences – venues where high-risk Canadians are commonly found.

For several years, a Canadian antiseptic drug called Prevora (DIN02046245), has been evaluated for its ability to manage oral dysbiosis in controlled studies, prospective and retrospective studies, as well as years of real-world experience.[13] In high-risk Canadians, it returns sore and bleeding gums to health within weeks and it simultaneously protects against dental decay for years. Prevora's formula is designed to reduce a broad spectrum of pathogenic levels of oral bacteria quickly, painlessly, and for long intervals. This medication is also ideal for delivery in a medical examination room, pharmacy consultation room, or seniors' residence. In these settings, it becomes an adjunctive treatment for type 2 diabetes, for hypertension, and for risks of cardiovascular, respiratory, inflammatory, and cognitive diseases.

> THE BENEFIT SILOS BETWEEN 'DENTAL' AND 'DRUGS' ARE NO LONGER VALID.

Canadian adults on Prevora spend significantly less on oral healthcare than they have prior to receiving treatment. They are also very compliant to the treatment plan.

It is notable that the traditional standard of preventive care for dental decay, fluoride, has no proven effect on managing oral dysbiosis, nor can it have. In both professional formulations and home care products, fluoride is not sufficiently antimicrobial to disrupt the plaque and adjust the mix of bacteria in the dental plaque. Moreover, the existing standard of preventive care for gum disease, hygienist scaling and debridement, commonly confronts unresponsive dysbiosis throughout the mouth. A recent study conducted at the University of Toronto reports that Prevora, as an adjunctive treatment to debridement, can significantly improve the success of periodontal care.[14]

Rethinking The Dental Plan

The unrelenting march of science has yielded Prevora as a new approach to managing the cause of poor oral health. But Prevora's proven safety, efficacy, and health economics face a dental industry structure which is geared to treating the consequences of poor oral health, rather than its cause. The fee-for-service system for reimbursing dentists, when combined with dental claims administration and benefits advisory services based on a commission, prioritize treatment over prevention.

Yet change is wanted by many employers and certainly by employees and by aging communities in Canada. Dental care remains the most unaffordable healthcare service and poor oral health is the most expensive medical condition, directly and indirectly, in the benefits package. Change is also facilitated by the rapid emergence of a new oral healthcare professional in Canada – the independent hygienist. There are now over 1,000 such practitioners who are preventively oriented and who can join the medical and pharmacy teams to deliver Prevora and other preventive treatments.

In this context, the principles for rethinking the group dental plan include:

- The only sustainable way to contain dental costs is to treat the cause of poor oral health.
- Tinkering with administrative measures such as deductibles or co-pays avoids the fundamental problem of oral dysbiosis.
- Science now shows that oral healthcare should be integrated with medical care. Poor oral health is a significant risk factor for poor general health and it is also a consequence of poor general health. The 'silos' between dentistry and medicine are no longer valid; indeed, they can be harmful and costly.

Similarly, the benefit silos between 'dental' and 'drugs' are no longer valid. A patient-centred benefits program for the type 2 diabetic, for example, would include delivery of Prevora in the medical practice or pharmacy.

In the 1970s, the first group dental plan emerged for purchase by Canadian employers. It is now 2022. The mouth can now be considered part of the body. Preventive oral healthcare has become a key component of patient-focused medical care. **BPM**

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