

# Applying a Health Literacy Lens to Preventative Children's Oral Health Programming

Cheryl A. Vamos, M.P.H., Ph.D.

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## ABSTRACT

*This article considers the role of health literacy in promotion of oral health across the lifespan. A Canadian-based oral health program serves as an illustrative example. The strategies and characteristics from the program can assist agencies and organizations in employing a health literacy lens in its approach to health education, disease prevention, and health promotion. [Umwelt und Gesundheit Online, 2011; 4, 30-34.](#)*

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## Introduction

Health literacy is not just a concept, a process, or an outcome, but it is an important public health goal (Nutbeam, 2000; Vamos, 2010). Healthy literacy is the “ability to access, comprehend, evaluate, and communicate information as a way to promote, maintain and improve health in a variety of settings across the lifecourse” (Rootman & Gordon-El-Bihbety, 2008). In Canada, a ground-breaking report entitled, “A Vision for a Health Literate Canada,” was released in 2008 by the first Canadian Expert Panel on Health Literacy and noted that health literacy is a critical means to enhancing the Canadian public's competency in accessing, comprehending, evaluating, and communicating health information and needs, which influences life-long practice of health-related behaviours (Rootman & Gordon-El-Bihbety, 2008). This paper will discuss one child and family health program in Brant County, Ontario, Canada, *Healthy Smiles Ontario*, in relation to the four health literacy domains and illustrate how health literacy is operationalized as both a process and an outcome. The paper will also highlight strategies and characteristics in health literacy programming that an agency or organization could adopt when applying a health literacy lens to health promotion and disease prevention in Canada and beyond.

## Oral Health Care across the Lifespan

Oral health plays a key role in oral-systemic health and is associated with physical, psycho-social and economic outcomes across the lifespan. Oral health has been associated with chronic diseases (i.e., cardiovascular disease, diabetes, respiratory disease), eating behaviours, sleeping patterns, appearance and self-confidence issues, and economic outcomes (i.e., lost productivity, work loss, and restricted activity) (Health Canada, 2009; Sinton & Winger, 2007). The

importance of oral health in childhood has also received considerable attention in the literature due to its association with periodontal disease and preterm birth weight, poor oral health and developmental and behavioural problems, and maternal child transmissibility (the impact of a mother's oral health on her child's oral health) (Health Canada, 2009; Sinton & Winger, 2007).

The period from preconception to approximately three years of age serves as a critical window for dental caries prevention efforts (Gunay, Dmoch-Bockhorn, Gunay, & Geurtsen, 1998; Kohler & Andreen, 1994). Rates of dental caries, including rates of early childhood caries (ECC) (defined as affecting the dentition of children < 72 months) are increasing across the population (Committee on Clinical and Scientific Affairs, 2010). Similar to many other public health issues, ECC are greatly associated with the social determinants of health where an individual's risk is closely related to factors such as immigrant status, aboriginal status, parental education, family income, and areas of social deprivation (Atkinson, McIntosh, Sinton, Stevens, Huang, & Mofid, 2009). Thus, public health practitioners, and specifically oral health providers, are charged with the important role of preventing poor oral health among the most vulnerable children. Early oral health visits serve as a public health strategy to promote population oral health and to reduce the prevalence and sequelae of ECC. To support this quest, major professional associations such as the Canadian and American Academies of Pediatric Dentistry and Pediatrics recommend that all children have an established dental home by one year of age (Canadian Academy of Pediatric Dentistry, n.d.).

### Healthy Smiles Ontario in Brant County, Ontario

Healthy Smiles Ontario (HSO), a provincial program in Ontario, Canada funded by the Ministry of Health and Long-Term Care, provides oral health (preventative and early treatment) services to children age 17 years and younger among eligible families (Ministry of Health and Long-Term Care, 2008). This program addresses the need and importance of providing oral health care to low-income children and is one component of the larger Ontario Poverty Reduction Strategy.

The goal of the HSO program implemented by the Brant County Health Unit (BCHU) in Brant County, Ontario is to improve oral health and overall well-being among children and families age 0 to 17 years. The long-term objectives include the following: to decrease the incidence of caries; to decrease morbidity associated with untreated caries; to decrease social and economic costs associated with caries; and to decrease oral health inequities. Populations targeted throughout the above activities are illustrated in Figure 1.

To address these goals and objectives, the BCHU is employing multi-level strategies based on primary, secondary, and tertiary prevention activities. Such activities include, but are not limited to health promotion (provision of information, materials and resources and skill building to increase knowledge, attitudes, and behaviours); outreach, marketing and referral pathways to identify and navigate high-risk populations into the program; and the provision of oral health screenings, risk assessments, and preventative treatments (i.e. fluoride varnish). Several activities implemented are unique to the HSO Program in Brant County where other activities are part of the ongoing efforts by the Dental Program at the BCHU such as school dental screenings and health education and referrals. The HSO Program at the BCHU is implemented in various community-based settings and in coordination with other internal programming efforts such as the Healthy Babies Healthy Children program, which provides information, screening/assessments, support and case management to women and families in the pre- and post-partum periods. Community stakeholders include dental offices, schools, library, youth mental health center, women's shelter for domestic violence, and the food bank.

### Health Literacy and the HSO Program in Brant County

Healthy literacy can include: one's access to information, resources and services (*access*); one's understanding of the health issues and/or diseases

and the factors that influence issues/diseases, including how to perform health-promoting behaviours (*comprehend*); one's ability to critically analyze information as it relates to their particular context and circumstance (*evaluate*); and one's ability to discuss and advocate information acquired in order to facilitate health-promoting behaviours (*communicate*).

Table 1 presents select HSO process and outcome objectives and categorizes them across the four health literacy domains to illustrate how literacy is operationalized in Brant County as both a process and an outcome.

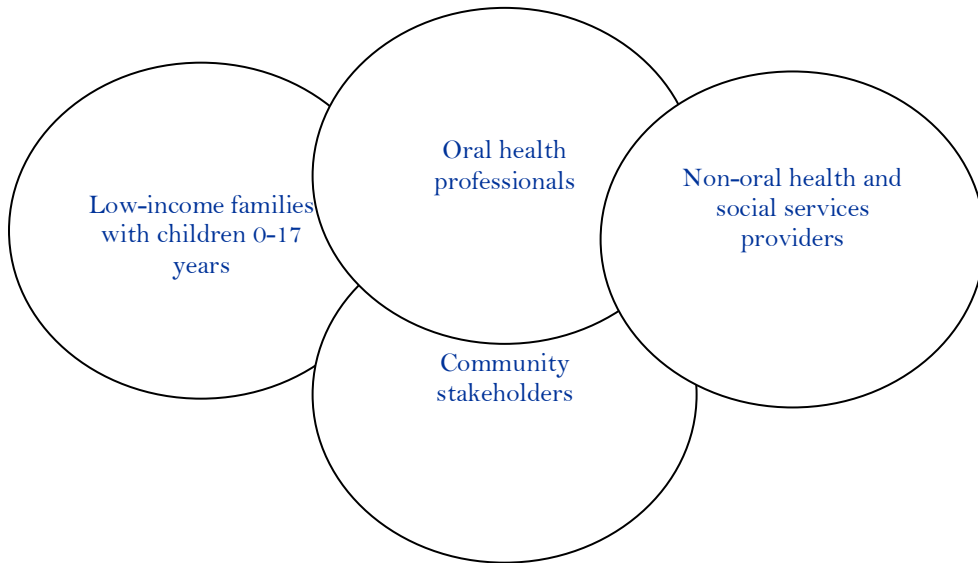
### Discussion

The HSO Program in Brant County presents an example where health literacy can be viewed as a concept, a process, and an outcome. For instance, key activities address the health literacy domains of access, comprehend, evaluate and communicate and facilitate the exposure of information, knowledge and skills to key program stakeholders. Moreover, this program demonstrates that key program stakeholders, such as oral health providers, can act as both an agent and a recipient of health literacy. For example, professional development activities are implemented to assist oral health providers in having the knowledge, attitudes, and skills necessary to provide preventative oral health care to children, particularly, very young children (i.e. children less than three years of age). In addition, activities are implemented to assist oral health providers in transferring such knowledge to parents/caregivers, such as communicating the importance of oral health among children and the corresponding preventative behaviours appropriate given a particular child's developmental stage and oral health status.

The HSO Program in Brant County employs a comprehensive population health approach through multiple strategies aimed at the individual, family, and community. Activities are implemented using various delivery channels to multiple settings and environments to maximize the reach and uptake of information and services among target populations. To address oral health inequities within the community, interventions are focused on neighbourhoods where oral health is poorest and target priority populations who are known to have high levels of oral health needs but whom seldom access preventive oral health care. This program also recognizes the determinants of health literacy (i.e. low education levels, low employment levels, low income levels, etc.) and characteristics of individuals

Figure 1. Target and Priority Populations in the Healthy Smiles Ontario Program, Brant County, Ontario

*Target Populations*



*Priority Populations*

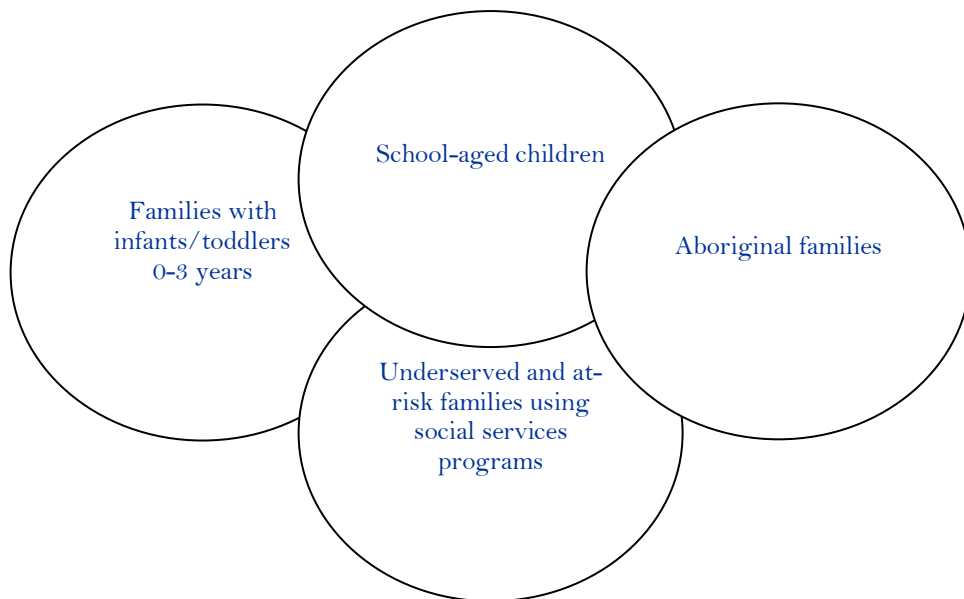


Table 1. Select Process and Outcome Objectives of the HSO Program across the Health Literacy Domains

| HSO Program Strategy in Brant County, Ontario | Health Literacy Domain                                                                                                                                                                                                      |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                               | Access                                                                                                                                                                                                                      | Comprehend                                                                                                                                                                                                                                      | Evaluate                                                                                                                                                                                                                                                                      | Communicate                                                                                                                                                                                                                |
| <b>Health Promotion</b>                       | Increase access to oral health information, resources, and supplies to low-income parents/caregivers                                                                                                                        | Increase understanding regarding the importance of oral health among children, the role it plays in overall health and well-being, and the specific positive/negative behaviours that influence young children's (0-3 yrs) oral health patterns | Increase parents'/caregivers' ability to evaluate the extent to which oral health information and recommendations apply to their children and whether they should contact the program                                                                                         | Increase parents'/caregivers' ability to communicate with their children and implement positive behaviours that affect oral health and their ability to communicate with dental providers and request an oral health visit |
| <b>Outreach &amp; Marketing</b>               | Increase access to the HSO program among low income families through tailored and targeted marketing and outreach activities                                                                                                | Increase awareness and understanding of the program, including eligibility requirements and benefits                                                                                                                                            | Increase understanding regarding how participants hear about the program and modify outreach and marketing activities as needed                                                                                                                                               | Increase the number of eligible parents/caregivers who contact and request information regarding program enrollment                                                                                                        |
| <b>Professional Development</b>               | Increase access to oral health information, resources, and tools among oral health and other health and social service providers                                                                                            | Increase understanding regarding the specific positive/negative behaviours that influence young children's (0-3 yrs) oral health patterns and the required professional behaviours and skills that should be performed                          | Increase oral health providers' ability to evaluate the extent to which key oral health messages and behaviours apply to individual patients and their ability to evaluate their patients oral health history and current habits to guide educational and counseling messages | Increase oral health providers' ability to communicate the importance and need for oral health care with parents/caregivers and multi-disciplinary colleagues                                                              |
| <b>Clinical Service Delivery</b>              | Increase access to oral health care                                                                                                                                                                                         |                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                            |
| <b>Community Engagement</b>                   | Increase access to community-tailored and accepted services; Increase access and support linkages between health and social service programs; Increase community capacity for policy, advocacy and service delivery efforts | Increase awareness and understanding of the program among community stakeholders and understand community's needs and perspectives in order to develop effective programming                                                                    | Increase Brant County Health Unit's ability to evaluate how best to engage, meet the needs and delivery community-tailored services                                                                                                                                           | Increase the Brant County Health Unit's ability to communicate to all stakeholders the importance of oral health among children and advocate for positive changes at all levels of the system                              |

who may have limited health literacy (i.e. those who have difficulties navigating health care system; reduced capacity/opportunities for learning; reduced access to services/information, etc.) (Rootman & Gordon-El-Bihbet, 2008). In addition, activities are guided by population health assessment and focus on prevention and early child oral health behaviours. Collectively, such efforts aim to decreasing inequalities in health literacy. The strategies and characteristics from the HSO Program in Brant County, Ontario highlighted above could assist an agency or organization in employing a health literacy lens in its approach to health education, disease prevention, and health promotion in Canada and beyond.

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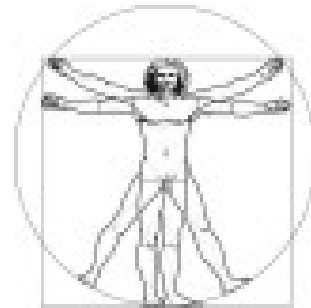
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### ABOUT THE AUTHOR

Cheryl A. Vamos ([cvamos@bchu.org](mailto:cvamos@bchu.org)) is Program Evaluation Manager, Brant County Health Unit, Brantford, ON, Canada, and Affiliate Assistant Professor, Department of Community Health, University of South Florida College of Public Health, Tampa, FL, USA. An earlier version of this paper was presented at the 4<sup>th</sup> International Consortium for Interdisciplinary Education about Health and the Environment, Cologne, Germany, December 2010. Copyright 2011 by *Umwelt und Gesundheit Online* and the Gesellschaft für Umwelt, Gesundheit und Kommunikation.