Exploring School Oral Health Outcomes and Neighbourhood Factors in Schools Participating in Ontario's "Healthy Schools" Recognition Program

Vanessa E. Muirhead, PhD,¹ Herenia P. Lawrence, PhD²

ABSTRACT

Objectives: This ecologic study compared school-level oral health outcomes in schools participating in Ontario's "Healthy Schools" program and non-participating schools in York Region, Ontario in 2007-2008 and examined the effect of neighbourhood socio-economic factors.

Method: School-aggregated data were obtained for all 243 elementary schools. York Region Public Health Unit provided oral health data from school dental screenings. We obtained information about schools participating in the Ontario's "Healthy Schools" program from publicly accessible websites. Neighbourhood socio-economic data based on school postcodes were extracted from Statistics Canada (2006) census databases. School oral health outcomes included the percentage of children in each school requiring preventive care, non-urgent dental treatment, urgent dental treatment and children with $\geq$ two decayed teeth.

Results: One hundred and six elementary schools (42%) participated in Ontario's "Healthy Schools" program in 2007-2008. Schools participating in the "Healthy Schools" program had a significantly lower percentage of children with $\geq$ two decayed teeth ($p < 0.001$) and children requiring urgent dental treatment ($p = 0.004$) than non-participating schools. School participation/neighbourhood socio-economic factors interactions showed that a significantly lower percentage of children in low-income "Healthy Schools" had preventive and urgent dental treatment needs and $\geq$ two decayed teeth than in low-income non-participating schools ($p < 0.001$).

Conclusion: Schools participating in Ontario's "Healthy Schools" program had better school oral health outcomes than non-participating schools. School neighbourhood socio-economic factors affected school oral health outcomes, which could suggest that schools situated in poorer neighbourhoods may benefit more from health promotion activities than schools situated in more affluent neighbourhoods.

Key words: Oral health; schools; health promotion; socio-economic factors

La traduction du résumé se trouve à la fin de l'article.

Can J Public Health 2011;102(1):30-34

Schools have been an important setting for health promotion since the launch of the World Health Organization (WHO) Health Promoting Schools (HPS) network in 1995.¹ Ontario launched its own "Healthy Schools" recognition program in 2006.² This program has four key components consistent with the HPS initiative: high quality instruction, healthy physical environments, supportive physical and social environments and access to resources through public health and community partnerships.³ Nine-hundred and ninety-six elementary and high schools in Ontario participated in the "Healthy Schools" recognition program in 2007-2008.

School-based health promotion initiatives have tackled child health conditions including obesity,⁴ mental health⁵ and oral diseases.⁶ Oral diseases such as dental caries (tooth decay) are public health concerns because they are common, preventable and costly to treat.⁷ The consequences of untreated dental caries include pain, sleeplessness, eating difficulties and school absences.⁸ Most oral health promotion initiatives have focused on changing oral health-related behaviours (e.g., tooth brushing) or have used health education approaches with only short-term improvements or minimal benefits.⁹ Few studies have evaluated the impact of broader health promotion activities such as healthy eating programs or school nutrition policies. This is surprising given that dental caries is a diet-related disease caused by the high and frequent consumption of added sugars.

Dental caries is also inextricably linked to socio-economic factors. The dental literature is replete with studies that show children

who live in low-income families have higher levels of dental caries than their high-income counterparts.¹⁰ Ecologic studies that analyze aggregate data are useful for assessing groups, communities and neighbourhoods.¹¹ Even though ecologic studies have shown that neighbourhood socio-economic factors are significantly associated with school oral health outcomes,¹² the effect of neighbourhood socio-economic factors on school health promotion is largely unknown. The objectives of this study were to compare the school oral health status of elementary schools in York Region, Ontario, participating and not participating in the "Healthy Schools" recognition program in 2007-2008 and to examine the effect of neighbourhood socio-economic factors.

METHODS

This ecologic study collated school-aggregated data from three sources.

Author Affiliations

1. Institute of Dentistry, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, UK
2. Discipline of Dental Public Health, Department of Biological and Diagnostic Sciences, Faculty of Dentistry, University of Toronto, Toronto, ON

Correspondence: Dr. Vanessa Muirhead, Institute of Dentistry, Barts and The London School of Medicine and Dentistry, Queen Mary University of London, 4 Newark Street, London, UK, E1 2AT, Tel: 011 44 207 882 8637, Fax: 011 44 207 377 7064, E-mail: v.muirhead@qmul.ac.uk

Acknowledgements: The authors thank Tracy Woloshyn from York Region Food for Learning and Dorothy Dziunikowski, Dental Programs Manager at York Region Public Health Unit for their support in this project.

Conflict of Interest: None to declare.

Table 1. Mean Percentage of Children in Schools Requiring Preventive Care, Non-urgent Dental Treatment, and Urgent Dental Treatment and the Percentage of Children With $\geq$ Two Decayed Teeth in 243 York Region Schools by School Health Promotion Participation Status and by the Number of Health-related School Promotion Activities

	School Health Promotion Participation§			Number of Health-related Activities			
	"Healthy Schools" (N=106)	Non-participating Schools (N=137)	p-value	No Activities (N=131)	1-2 Activities (N=60)	3 or More Activities (N=52)	p-value
Mean % of children requiring prevention* (95% CI)	12.06 (10.9, 13.2)	13.37 (12.3, 14.4)	0.09	13.29 (12.2, 14.3)	12.50 (11.3, 13.7)	11.32 (9.1, 13.5)	0.07
Mean % of children with non-urgent treatment needs† (95% CI)	4.87 (4.3, 5.4)	5.47 (5.0, 5.9)	0.10	5.41 (4.9, 5.9)	5.11 (4.5, 5.8)	4.55 (3.7, 5.4)	0.30
Mean % of children with urgent treatment needs‡ (95% CI) [¶]	2.21 (1.9, 2.6)	3.21 (2.9, 3.5)	<0.001	3.20 (2.8, 3.6)	2.22 (1.8, 2.6)	2.10 (1.6, 2.5)	0.001
Mean % of children with two or more decayed teeth (95% CI)**	3.11 (2.6, 3.6)	4.08 (3.7, 4.5)	0.004	4.04 (3.6, 4.5)	3.38 (2.8, 3.8)	2.57 (1.9, 3.2)	0.008

* Preventive care: requiring tooth cleaning, dental sealants or fluoride treatments

† Non-urgent treatment needs: child had ≥ 1 small decayed tooth‡ Urgent treatment needs: child had ≥ 1 large decayed tooth

CI Confidence Interval

§ T-test analyses

|| ANOVA analyses

¶ Bonferroni post-hoc tests for the percentage of children with urgent treatment needs: no activities >1-2 activities ($p=0.002$); no activities >3 or more activities ($p=0.01$)** Bonferroni post-hoc tests for the percentage of children with ≥ 2 decayed teeth: no activities >3 or more activities ($p=0.01$)

Oral health data

We obtained oral health data from York Region Public Health Unit; the Unit conducted school dental screenings in all 243 York Region District and York Region Catholic elementary schools between October 2007 and April 2008. Nine trained and annually calibrated dental hygienists performed the dental screenings using a standardized dental screening protocol. The protocol dictated that York Region Public Health Unit screened children in junior (JK) and senior kindergarten (SK) (4- to 5-year-olds) and children in grades two (7-year-olds), four (9-year-olds), six (11-year-olds) and eight (13-year-olds).

Oral health data were aggregated at the school level and included the percentage of children in each school requiring preventive dental care (dental sealants, cleanings and topical fluoride treatments), the percentage of children with urgent dental treatment needs and non-urgent dental treatment and the percentage of children who had ≥ 2 decayed teeth. Dental sealants are plastic coatings applied to the surface of teeth to prevent dental caries.¹³ Topical fluorides are applied to tooth surfaces to prevent or reverse early decay and were indicated for children with ≥ 1 decayed smooth surface.¹⁴ Children with visible calculus on tooth surfaces required tooth cleanings. Children who had large open cavities, dental pain, infection, trauma or other pathologies required urgent dental treatment while children who had at least one small decayed tooth required non-urgent dental treatment. A permanent (adult) or deciduous (baby) tooth was designated "decayed" if the tooth had a visible cavity, a lost temporary filling or part of a filling that required treatment.

School health promotion data

The "Healthy Schools" recognition program is a voluntary program managed by the 72 Ontario school boards.¹⁵ Existing or proposed health-related activities included healthy eating, physical activity, bullying prevention, personal safety and injury prevention, substance use and abuse, healthy growth and development and mental health activities. The Ministry of Education posts a list of recognized "Healthy Schools" on its official website. We extracted

data about the elementary schools in York Region District and Catholic school boards who participated in the "Healthy Schools" Recognition program in 2007/2008 from these websites.¹⁶

Neighbourhood socio-economic data

We obtained neighbourhood socio-economic data based on school address postcodes from Statistics Canada (2006) websites. First, we used a postcode analyzer to match school postcodes to Census Dissemination Areas (CDAs), the smallest geographic census unit containing 400 to 600 inhabitants.¹⁷ Next, we used these CDAs to extract data on the percentage of low-income families in each school neighbourhood. According to Statistics Canada definitions, low-income families spent 70% or more of their income on necessities (e.g., food, shelter and clothing).¹⁷ The low-income cut-off for a family of four living in a population size equivalent to York Region was approximately \$33,250 (before taxes).¹⁸

The University of Toronto Research Ethics Board approved the study protocol.

Data analysis

Oral health, school health promotion and neighbourhood socio-economic data were entered into a common data file and analyzed using the Statistical Package for the Social Sciences (SPSS) version 16.¹⁹ We used four school-based oral health outcomes for analyses: the percentage of children in each school requiring preventive care, non-urgent and urgent dental treatment and the percentage of children with ≥ 2 decayed teeth. The independent variable was school participation classified as either recognized "Healthy Schools" or non-participating schools. *T*-tests and ANOVA tested whether the four school-based oral health outcomes were associated with school participation and the number of health-related activities. To examine the effect of neighbourhood socio-economic factors on school health promotion, we dichotomized schools into "high" and "low" income schools based on the average percentage of low-income families in Ontario (16.5%).²⁰ "High-income" schools were situated in neighbourhoods with $\leq 16.5\%$ of low-income families while "low-income" schools were situated in

Table 2. Mean Percentage of Children in Schools Requiring Preventive Care, Non-urgent Dental Treatment, and Urgent Dental Treatment and the Percentage of Children With $\geq$ Two Decayed Teeth in High- and Low-income Neighbourhood Schools* by School Health Promotion Participation (N=242)†

	High-income Neighbourhoods		Low-income Neighbourhoods	
	"Healthy Schools" (N=66)	Non-participating Schools (N=77)	"Healthy Schools" (N=63)	Non-participating Schools (N=36)
% of children requiring preventive care‡ (95% CI)¶	10.79 (9.4, 12.1)	10.97 (9.7, 12.2)	14.17 (12.4, 15.2)	16.66 (15.9, 18.1)
% of children with non-urgent treatment needs§ (95% CI)**	4.32 (3.7, 5.0)	4.77 (4.1, 5.4)	5.81 (4.9, 6.7)	6.43 (5.7, 7.1)
% of children with urgent treatment needs (95% CI)††	1.86 (1.4, 2.3)	2.65 (2.3, 3.1)	2.81 (2.2, 3.4)	3.94 (3.5, 4.4)
% of children with two or more decayed teeth (95% CI)‡‡	2.53 (1.9, 3.1)	3.39 (2.8, 3.9)	4.09 (3.3, 4.3)	4.99 (4.9, 5.6)

* Neighbourhood socio-economic status: High-income schools situated in neighbourhoods with $\leq$ 16.5% of low-income families (Ontario average); Low-income schools situated in neighbourhoods with $>$ 16.5% of low-income families (Ontario average)
† One school had missing data on the percentage of low-income families
‡ Preventive care: requiring tooth cleaning, dental sealants or topical fluoride treatments
§ Non-urgent treatment needs: child had $\geq$ 1 small decayed tooth
|| Urgent treatment needs: child had $\geq$ 1 large decayed tooth
¶ General linear modeling analysis: Main effect (Healthy School Program/Non-participating schools): $p=0.07$; Schools x Income interactions: $p<0.001$
** General linear modeling analysis: Main effects (Healthy School Program/Non-participating schools): $p=0.14$; Schools x Income interactions: $p=0.10$
†† General linear modeling analysis: Main effects (Healthy School Program/Non-participating schools): $p<0.001$; Schools x Income interactions: $p<0.001$
‡‡ General linear modeling analysis: Main effects (Healthy School Program/Non-participating schools): $p=0.007$; Schools x Income interactions: $p<0.001$

neighbourhoods with $>$ 16.5% of low-income families. General Linear Modelling (GLM) tested if neighbourhood socio-economic factors moderated the relationships between school oral health outcomes and school participation by observing main effects and interactions.²¹ The level of statistical significance for all analyses was set at $p<0.05$.

RESULTS

York Region Public Health Unit performed school dental screenings on 55% of children in each of the 243 elementary schools. The percentage of children screened in each school ranged from 31.6% to 87.4%. Approximately 28% of seven-year-olds and 52.5% of nine-year-olds had dental caries experience. The mean percentage of children requiring preventive care, non-urgent dental treatment and urgent treatment was 12.8% (95% CI: 12.0-13.5), 5.2% (95% CI: 4.9-5.6) and 2.7% (95% CI: 2.4-3.0), respectively. The mean percentage of children who had $\geq$ two decayed teeth was 3.7 (95% CI: 3.3-3.9).

One hundred and two elementary schools (42%) participated in Ontario's "Healthy Schools" program in 2007-2008. Seventy-seven schools (31.7%) had physical activity programs; 67 schools (27.6%) had healthy eating programs; 37 schools (15.2%) had bullying prevention programs; 12 schools (4.9%) had healthy growth and development programs; and 9 schools (3.7%) had personal safety initiatives.

The percentage of low-income families in schools ranged from zero to 46% with a mean percentage of 15.3% (95% CI: 14.3-16.2). There were 143 elementary schools located in high-income neighbourhoods, 99 schools in low-income areas and 1 school with missing socio-economic data.

Schools participating in the "Healthy Schools" program had a significantly lower percentage of children with $\geq$ two decayed teeth ($t_{239}=4.08$, $p<0.001$) and a significantly lower percentage of children requiring urgent dental treatment ($t_{241}=2.96$, $p=0.004$) than non-participating schools (Table 1). There were no significant differences between any of the school oral health outcomes and the seven health-related activities. However, schools that participated in three or more health-related activities had a significantly lower percent-

age of children requiring urgent dental treatment ($F_2=7.04$, $p<0.001$) and children with $\geq$ two decayed teeth than schools with one or two health-related activities or no health promotion initiatives ($F_2=4.56$, $p=0.008$) (Table 1).

Examining the effect of neighbourhood socio-economic status showed a significant interaction between health promotion participation and neighbourhood socio-economic status. This interaction effect indicated that a lower percentage of children required preventive care in low-income "Healthy Schools" than in low-income non-participating schools ($F_2=21.7$, $p<0.001$) (Table 2). We observed a similar significant interaction for the percentage of children requiring non-urgent dental treatment: a lower percentage of children in low-income "Healthy Schools" had non-urgent treatment needs than children in low-income non-participating schools ($F_2=9.79$, $p<0.001$) (Table 2). Low-income "Healthy Schools" also had a lower percentage of children with urgent dental treatment needs ($F_2=10.86$, $p<0.001$) and children with $\geq$ two decayed teeth than low-income non-participating schools ($F_2=12.04$, $p<0.001$) (Table 2).

DISCUSSION

This study showed that schools participating in Ontario's "Healthy Schools" program had better school oral health outcomes than non-participating schools for two school oral health outcomes: the percentage of children with urgent dental treatment needs and the percentage of children who had $\geq$ two decayed teeth. Even though the percentage differences between non-participating schools and "Healthy Schools" were quite small, our results were consistent with previous studies that show better oral health outcomes in schools engaged in health promotion activities.^{22,23} We did not find differences between school oral health outcomes in schools participating in healthy-eating activities or any specific health-related activity. However, we did observe better school oral health outcomes for schools that participated in three or more health-related activities. This could suggest that the actual health-promoting school environment (reflected by the number of health-related activities) may be more important than any specific health-related activity.

Our findings on neighbourhood socio-economic status suggest that differences between school oral health outcomes and school promotion participation depend on neighbourhood socio-economic factors. Previous studies have shown that people living in disadvantaged neighbourhoods often do not have access to the health-conducive resources found in more prosperous neighbourhoods, such as fresh fruit grocery stores and safe recreational facilities.²⁴ These neighbourhood resources may buffer the effects of disadvantage. Given that "Healthy Schools" situated in low-income neighbourhoods had better school oral health outcomes than non-participating schools situated in low-income neighbourhoods, it is possible that the "Healthy Schools" program also serves as a buffer by providing a health-conducive school environment. This could mean that schools situated in poorer neighbourhoods may benefit more from health promotion activities than schools situated in higher-income neighbourhoods. This could have policy implications for the Ontario Ministry of Education to promote and target schools in disadvantaged neighbourhoods and to provide additional resources. Future research could also adopt an ecologic approach to study other diet-related conditions such as obesity in association with Ontario's "Healthy Schools" initiatives.

This study had several shortcomings. Unlike Seliske et al.²⁵ who used a composite neighbourhood index, we used the percentage of low-income families as the single neighbourhood socio-economic measure, which may have underestimated neighbourhood effects. The inherent limitations of using an ecologic approach and a cross-sectional study design mean that we cannot make inferences beyond the school level; neither can we make causal inferences. To avoid the ecological fallacy, we restricted our inferences to the school level.²⁶ Access to dental care is an important variable. However, we could not test the potential mediating effect of dental care because this information was not available. This study does allow us to generate hypotheses. It provides us with a rationale for conducting further research using longitudinal study designs to collect and analyze individual-level oral health indicators, family-level data, school-level data (e.g., the percentage of children participating in health promotion activities) and neighbourhood-level data using multiple socio-economic indicators. This will enable us to assess the possible interactions between individuals, families, school environments and neighbourhoods and establish causal pathways. Non-participating schools might have been involved in *ad hoc* health promotion activities not recognized by the Ministry of Health Promotion, possibly causing some contamination. However, this is unlikely given the many incentives for schools to participate in the program to gain official recognition. Despite these limitations, to our knowledge, this is the first study to evaluate Ontario's "Healthy Schools" program. We hope that the information from the study will be valuable for future program development and will stimulate further research.

REFERENCES

- World Health Organization. WHO's Global School Health initiative. Health-promoting schools. A healthy setting for living, learning and working. Geneva, Switzerland: WHO, 1998.
- Ontario Ministry of Education. Healthy Schools Recognition Program. 2009. Available at: <http://www.edu.gov.on.ca/eng/healthyschools/challenge.html> (Accessed January 25, 2011).
- Ontario Ministry of Education. Foundations for a Healthy School. 2007. Available at: <http://www.edu.gov.on.ca/eng/healthyschools/foundations.pdf> (Accessed January 25, 2011).
- O'Loughlin J, Gray-Donald K, Paradis G, Meshefedjian G. One- and two-year predictors of excess weight gain among elementary schoolchildren in multi-ethnic, low-income, inner-city neighborhoods. *Am J Epidemiol* 2000;152(8):739-46.
- Kimber B, Sandell R, Bremberg S. Social and emotional training in Swedish schools for the promotion of mental health: An effectiveness study of 5 years of intervention. *Health Educ Res* 2008;23(6):931-40.
- Kwan SY, Petersen PE, Pine CM, Borutta A. Health-promoting schools: An opportunity for oral health promotion. *Bull WHO* 2005;83(9):677-85.
- Baldota KK, Leake JL. A macroeconomic review of dentistry in Canada in the 1990s. *J Can Dent Assoc* 2004;70(9):604-9.
- Slade GD. Epidemiology of dental pain and dental caries among children and adolescents. *Community Dent Health* 2001;18(4):219-27.
- Brukiene V, Aleksejuniene J. An overview of oral health promotion in adolescents. *Int J Paediatr Dent* 2008;19(3):163-71.
- Locker D. Deprivation and oral health: A review. *Community Dent Oral Epidemiol* 2000;28(3):161-69.
- Wakefield J. Ecologic studies revisited. *Annu Rev Public Health* 2008;29:75-90.
- Muirhead V, Marceles W. An ecological study of caries experience, school performance and material deprivation in 5-year-old state primary school children. *Community Dent Oral Epidemiol* 2004;32(4):265-70.
- Azarpazhooh A, Main PA. Pit and fissure sealants in the prevention of dental caries in children and adolescents: A systematic review. *J Can Dent Assoc* 2008;74(2):171-77.
- Azarpazhooh A, Main PA. Fluoride varnish in the prevention of dental caries in children and adolescents: A systematic review. *J Can Dent Assoc* 2008;74(1):73-79.
- Ontario Ministry of Education. Healthy Schools Recognition Program Acceptance Form. 2008. Available at: <http://www.edu.gov.on.ca/eng/healthyschools/challenge.pdf> (Accessed January 25, 2011).
- Ontario Ministry of Education. Healthy Schools Recognition Program 2009. Available at: <http://www.edu.gov.on.ca/eng/healthyschools/search.asp> (Accessed January 25, 2011).
- Statistics Canada. 2006 Census Dictionary. 2008. Available at: <http://www12.statcan.gc.ca/census-recensement/2006/ref/dict/pdf/92-566-eng.pdf> (Accessed January 25, 2011).
- York Region's Community Social Data Strategy Consortium. Just the Facts About Your Community. Housing and Shelter Costs in York Region. The Regional Municipality of York Community and Health Services, ON, 2009.
- Statistical Package for the Social Sciences. SPSS Complex Samples™ 15.0 for Windows Manual. Chicago, IL, 2006.
- Ontario Ministry of Education. School Information Finder. 2009. Available at: http://www.edu.gov.on.ca/eng/sift/schoolProfile.asp?SCH_NUMBER=003913 (Accessed January 25, 2011).
- Meyers LS, Gamst G, Guarino AJ. *Applied Multivariate Research: Design and Interpretation*. Thousand Oaks, CA: Sage Publications, 2006.
- Moyses ST, Moyses SJ, Watt RG, Sheiham A. Associations between health promoting schools' policies and indicators of oral health in Brazil. *Health Promot Int* 2003;18(3):209-18.
- Rodrigues CS, Watt RG, Sheiham A. Effects of dietary guidelines on sugar intake and dental caries in 3-year-olds attending nurseries in Brazil. *Health Promot Int* 1999;14(4):329-35.
- Veugelers P, Sithole F, Zhang S, Muhajarine N. Neighborhood characteristics in relation to diet, physical activity and overweight of Canadian children. *Int J Pediatr Obes* 2008;3(3):152-59.
- Seliske LM, Pickett W, Boyce WF, Janssen I. Association between the food retail environment surrounding schools and overweight in Canadian youth. *Public Health Nutr* 2009;12(9):1384-91.
- Pearce N. The ecological fallacy strikes back. *J Epidemiol Community Health* 2000;54(5):326-27.

Received: April 12, 2010

Accepted: July 23, 2010

RÉSUMÉ

Objectifs : Cette étude écologique compare les résultats de santé buccodentaire obtenus par les écoles de la région de York, en Ontario, ayant participé au programme « Écoles saines » de la province en 2007-2008 et par les écoles non participantes. L'étude aborde aussi l'effet des facteurs socioéconomiques du quartier.

Méthode : Nous avons obtenu les données agrégées par école des 243 écoles primaires de la région de York. Le bureau de santé publique régional nous a fourni les données de santé buccodentaire des dépistages dentaires réalisés en milieu scolaire. Nos renseignements sur les écoles participant au programme « Écoles saines » de l'Ontario sont tirés de sites Web accessibles au public. Les données socioéconomiques par quartier, selon les codes postaux des écoles, sont extraites des bases de données du Recensement de Statistique Canada (2006). Les résultats de santé

SCHOOL ORAL HEALTH AND HEALTH PROMOTION

buccodentaire des écoles étaient : le pourcentage d'enfants de chaque école ayant eu besoin de soins préventifs, de soins dentaires non urgents et de soins dentaires urgents, et le pourcentage d'enfants ayant deux dents cariées ou plus.

Résultats : Cent six écoles primaires (42 %) ont participé au programme « Écoles saines » de l'Ontario en 2007-2008. Les écoles participantes affichaient des pourcentages significativement inférieurs d'enfants ayant deux dents cariées ou plus ($p<0,001$) et d'enfants exigeant des soins dentaires urgents ($p=0,004$) que les écoles non participantes. Les interactions entre la participation de l'école et les facteurs socioéconomiques du quartier montrent que dans les quartiers à faible revenu, le pourcentage d'enfants ayant eu besoin de soins dentaires préventifs et urgents et ayant deux dents cariées ou plus était significativement inférieur dans les « écoles saines » ($p<0,001$).

Conclusion : Les écoles ayant participé au programme « Écoles saines » de l'Ontario affichaient de meilleurs résultats de santé buccodentaire que les écoles non participantes. Les facteurs socioéconomiques du quartier de l'école ont eu une influence sur les résultats de santé buccodentaire des écoles, ce qui donne à penser que les écoles situées dans les quartiers pauvres profitent davantage des activités de promotion de la santé que les écoles des quartiers aisés.

Mots clés : santé buccodentaire; établissement scolaire; promotion de la santé; facteurs socioéconomiques

Caring

for you and your baby

Caring For You and Your Baby is a practical guide for new mothers with babies from infancy through to toddler age. It provides information that can help keep you and your baby happy and healthy. This guide was developed by public health experts with a focus on raising healthy babies and protecting them from injury and illness.

Caring For You and Your Baby is available for download in the following languages: Arabic, Chinese, English, Farsi, French, Inuktitut, Korean, Punjabi, Russian, Spanish, Tagalog and Urdu!

Find out more at
you-and-your-baby.cpha.ca

Brought to you by the Canadian Public Health Association (CPHA) and funded by an educational grant from the makers of Lysol®.