

2011

-THE CHICAGO PUBLIC SCHOOL COMMUNITY -



PERCEPTIONS OF ORAL HEALTH  
& THE SCHOOL-BASED ORAL HEALTH PROGRAM

## Contents

EXECUTIVE SUMMARY .....	3
INTRODUCTION .....	3
BACKGROUND .....	4
City of Chicago School-based Oral Health Program .....	4
Chicago Community Oral Health Forum .....	4
Purpose.....	5
METHODS.....	5
Participants .....	5
School Sampling Procedures .....	5
Data collection.....	6
Instruments .....	7
Analysis.....	7
RESULTS .....	7
Parents.....	7
Perceptions of the Chicago SBOHP by School’s Participation Rate .....	7
Importance of Oral Health by School’s Participation Rate .....	8
Focus groups.....	9
School Personnel .....	10
Perceptions about Oral Health and the Chicago SBOHP by Schools’ Participation Rate ...	10
Focus Groups .....	11
DISCUSSION.....	13
Recommendations.....	14
REFERENCES .....	16
APPENDICES.....	17
Appendix A: Tables .....	17
Appendix B: Parent Survey Form .....	23
Appendix C: Staff Survey Form .....	25
Appendix D: Parent Focus Group Questions .....	27
Appendix E: Staff Focus Group Questions .....	28
Appendix F: Schools Summary Report.....	30

## EXECUTIVE SUMMARY

In an effort to determine how to increase participation in the School-based Oral Health Program (SBOHP) currently active in Chicago Public Schools (CPS), the Chicago Department of Public Health and the Chicago Community Oral Health Forum, with funding from Oral Health America, recently conducted a study with a sample of parents and staff members from throughout CPS. Participants were chosen from schools with both satisfactory and unsatisfactory participation levels in the SBOHP and were asked to fill out surveys and participate in group interview sessions. The surveys and interviews showed that the schools with higher participation levels had parents who had a greater understanding of the function of the SBOHP and of the importance of good oral health for their children. Both parents and staff members at all of the schools suggested better levels of communication between the SBOHP, the school and parents to increase participation. Specific suggestions included holding informational meetings for both teachers and parents about oral health and the purpose of the SBOHP, increased written communications between the SBOHP and parents and teachers, more advanced notice for when the SBOHP would be visiting individual schools and including dental professionals with experience working with children with special needs and those who speak English as a second language.

## INTRODUCTION

Tooth decay affects more children than any other chronic disease in the United States. Untreated tooth decay not only cause pain and infection, but can also affect eating, speaking, and learning. The good news is that dental caries are highly preventable. According to the Centers for Disease Control and Prevention (CDC), dental sealants, in combination with fluoride use, regular brushing, and dental check-ups, dramatically decrease the risk of tooth decay in school-aged children (1). One way to prevent dental caries is through community programs such as School-based Oral Health Programs (SBOHP). SBOHP provide preventive dental services to children that might not otherwise be available to them. Additionally, parents do not have to take their children out of school, take a day off from work, or handle transportation issues getting to a dental office. Approximately 90% of children's tooth decay is found in pits and fissures of the back molars. However, researchers have found that children who receive dental sealants through SBOHP have 60% less new tooth decay in their molars (2). In addition SBOHP act as important health care safety net access points for preventive dental services to underserved populations, low income children and racial/ethnic minorities that usually have higher rates of untreated decay and lower rates of preventive dental sealants (3).

Healthy People 2010 Oral Health Objectives set a target for dental sealants of 50% in children 8-14 years of age. However, the objective was not reached (4). Healthy people 2020 set the goal for dental sealants at 28.1% for children 6-9 years of age (5) . The state of Illinois as well as the city of Chicago are already above the 2020 target for children 6-9 years of age, with dental sealants present at 41.5% and 34.3% respectively (6) (7). However, the percentage of children with untreated tooth decay is still very high (IL 29.1% and Chicago 35.6%) (7) (8).

One way to decrease the prevalence of tooth decay in Chicago children is to increase the effectiveness and reach of the Chicago School-based Oral Health Program. The SBOHP serves all children in the Chicago public schools from pre-Kindergarten to 8<sup>th</sup> grade. However, the rates of participation in the program differ between schools. To try to uncover these differences, parents and staff members of Chicago Public Schools were asked to complete a survey questionnaire about the program; their responses were analyzed to identify differences between high and low rates of participation in the SBOHP. Parents and staff members were also asked for suggestions to increase the impact of the SBOHP. These suggestions, in combination with the survey results, will be used to increase the utilization and effectiveness of the SBOHP.

## **BACKGROUND**

### **City of Chicago School-based Oral Health Program**

The city of Chicago's School-based Oral Health Program (SBOHP) is the largest in the country. It serves all children in Chicago Public Schools (CPS) from pre-kindergarten to the eighth grade through a cooperative agreement between CPS and the Chicago Department of Public Health (CDPH). The SBOHP is directed and administered by the Chicago Department of Public Health (CDPH) and has a strong working relationship with the Chicago Public Schools (CPS). In 2009-10 the student total population at CPS was about 409,279 students, with 290,000 of those students in grades pre-K to 8<sup>th</sup>. The majority of the students are from low-income families (86%) and students are mostly African-American (45%) or Latino (41%) (9). The City of Chicago's SBOHP provide CPS students the opportunity to access oral health preventive services at no direct cost. These preventative services include: dental exams and cleanings, fluoride varnish treatments, dental sealant applications, and referral to a local dentist if needed. During the 2007-08 school years, the SBOHP went to about 481 elementary schools, served almost 61,000 students, and placed approximately 115,276 dental sealants (7).

### **Chicago Community Oral Health Forum**

The Chicago Community Oral Health Forum (CCOHF) is a project funded by a grant from the Otho S. A. Sprague Memorial Institute and sponsored by the Heartland Alliance for Human Needs and Human Rights. The main objectives of the forum are to:

- Conduct an infrastructure assessment of oral health care delivery systems in Chicago.
- Provide opportunities and support to Chicago communities interested in quantifying oral health needs in their community.
- Help existing service programs work together and share resources and efforts to improve oral health care and access in Chicago.

CCOHF completed the present project through a partnership with The Chicago Department of Public Health (CDPH) and The Chicago Public Schools (CPS). Both CDPH and CPS offered input and guidance in the development of the planning stages of this project. Funding was provided by Oral Health America.

## Purpose

The specific aims of the project are:

1. To describe differences between schools that have high and low rates of participation in the Chicago School-based Oral Health Program.
2. To gain useful insight from parents and school personnel about the SBOHP and how the program can be improved to increase its impact in the CPS community.

## METHODS

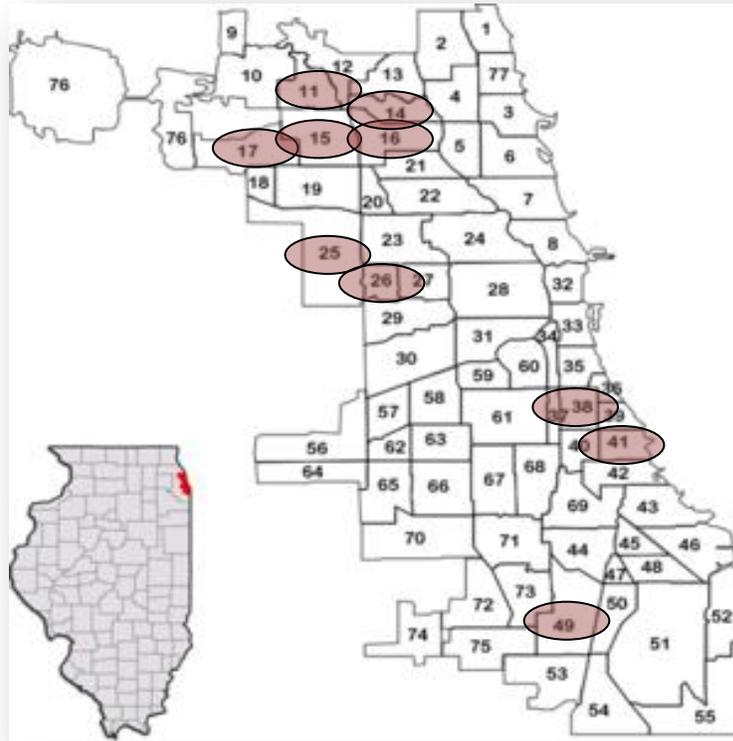
### Participants

A total number of 140 persons participated in the study. The sample consisted of parents (n=68) and staff members (n=72) from 9 different Chicago Public Schools that have participated at various times and degrees in the Chicago's School-based Oral Health Program.

### School Sampling Procedures

Chicago Public Schools that had recently participated in the SBOHP were initially selected for participation. Schools were then grouped by their involvement in the SBOHP. Schools were either labeled "*Satisfactory Participation*" (SP) or "*Unsatisfactory Participation*" (USP) based on the percent of student consent forms returned to the SBOHP. Schools labeled "*Satisfactory Participation*" (SP) had a high rate of returned consent forms ( $\geq 40\%$ ) and subsequently higher participation in the SBOHP. Schools labeled "*Unsatisfactory Participation*" (USP) had fewer returned consent forms ( $\leq 40\%$ ) and a lower rate of participation in the SBOHP. Schools divided based on level of participation were then plotted on a map of Chicago and selected by geographical location as representative of the Chicago Public School system as a whole (Fig. 1). Additionally, schools were selected on the basis of neighborhood. The idea of selecting schools within the same neighborhood was to try to account for similar demographics and "worldview" of the participants. The end result of the study selection process yielded ten schools within five Chicago neighborhoods where the SBOHP process, utilization, and positive and negative variables were intensely studied.

**Figure 1-** Geographical Location of Participating Schools, City of Chicago Community Map



## Data collection

Each principal of the 10 schools was initially contacted by CPS to introduce the Chicago Community Oral Health Forum (CCOHF). This initial email introduced the research project, described its purpose, and outlined school expectations. A week later, CCOHF sent a follow up email to schedule a meeting and to address questions from school personnel. Each school was then contacted and asked about their interest in participating in the research project. Nine of the 10 schools were enrolled in the project. At the interested schools, two meeting dates were scheduled: one for staff and one for parents. At each of these dates, the participants completed a questionnaire and contributed to a focus group interview led by CCOHF. In order to recruit participants, flyers and a description of the study were sent to each participating school. Two types of incentives were also used to increase participation in the project--lunch for school staff and twenty-dollar grocery store gift cards for parents.

Data was collected from parents and school personnel at each identified school. The meeting flow was as follows: first, all participants were asked to fill out a parent or staff questionnaire. All participants were then asked, in a focus group interview format, to elaborate on topics of the SBOHP and oral health and offer any suggestions to increase the impact or use of the SBOHP. The format of the focus group interview section was a series of semi-structured questions. Focus groups lasted between 30 and 60 minutes. Data collection occurred through

the months of November and December in 2010 during school hours. All survey data was entered into Excel and SPSS 16. Recorded interviews were then transcribed and coded.

## Instruments

The two tools that were selected to gather data were a Parent or Staff Survey Form and Parent or Staff Focus Group Questions (see appendix). The parent and staff surveys were distinct and developed by CCOHF with input from CDPH and CPS. The parent survey consisted of 13 multiple-choice questions and the parent focus group interview had a total of 7 semi-structured questions. The staff group responded to 14 multiple-choice questions and then their focus group interview had a total of 16 questions. The focus group interviews included between 3 and 12 informants. This interview was semi-structured and participants were asked for their opinions on general oral health topics, as well as more directed questions on different aspects of the SBOHP. The series of semi-structured questions were designed to gain insight into the participants' thoughts about the SBOHP and allow share their ideas to improve the program.

## Analysis

Data from the survey was entered into an Excel spreadsheet and analyzed using SPSS 16. The focus group data was recorded and transcribed. Once all the interviews were transcribed they were coded into the qualitative research program HyperResearch.

# RESULTS

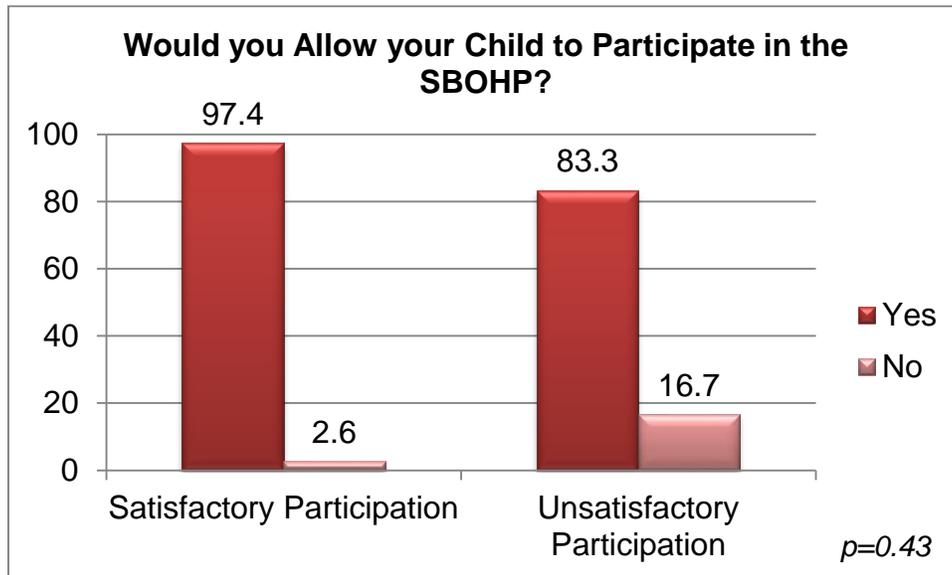
The purpose of the study was to identify significant and attributable differences between schools that have high rates of participation in the SBOHP and schools with lower rates of participation. Findings are presented in two main sections. The first section contains quantitative and qualitative results from parents and the second section contains quantitative and qualitative information collected from CPS school's personnel. All descriptive statistics are presented for comparison purposes by the school's participation rates.

## Parents

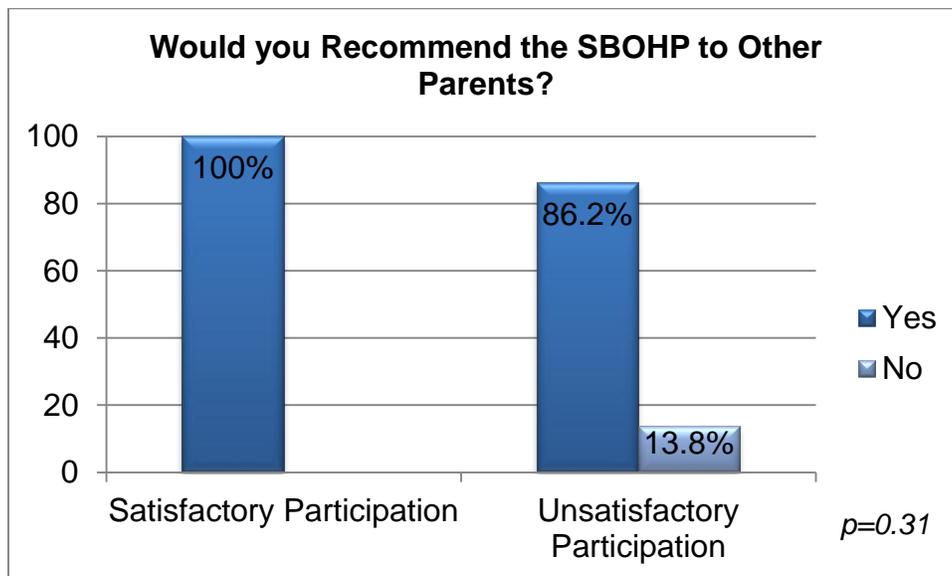
### *Perceptions of the Chicago SBOHP by School's Participation Rate*

Perceptions of parents regarding the SBOHP are presented in Table 1 (Appendix A). A total of 68 parents participated in the survey. Overall, parents from schools with *Satisfactory Participation (SP)* rates in the SBOHP were more aware about the program (73.7%) than parents from schools with *Unsatisfactory Participation (USP)* rates (60%). *SP* parents perceive more of the benefits of the SBOHP (77.8% vs. 56.7%), are more willing to allow their children to participate in the program (97.4% vs. 83.3%), and are more willing to recommend the program to other parents (100% vs. 86.2%) than *USP* parents. Statistically significant differences between schools with higher and lower participation rates were found in two variables: parents who would allow their children to participate in the SBOHP ( $p=0.43$ ) and parents who would recommend the program to other parents ( $p=0.31$ ), (see Fig. 1 and Fig. 2).

**Figure 2-** Parents Willingness to allow their Children to Participate in the Chicago School-based Oral Health Program by Schools' Participation Rate



**Figure 3-** Parents Willingness to Recommend the Program to Other Parents by Schools' Participation Rate

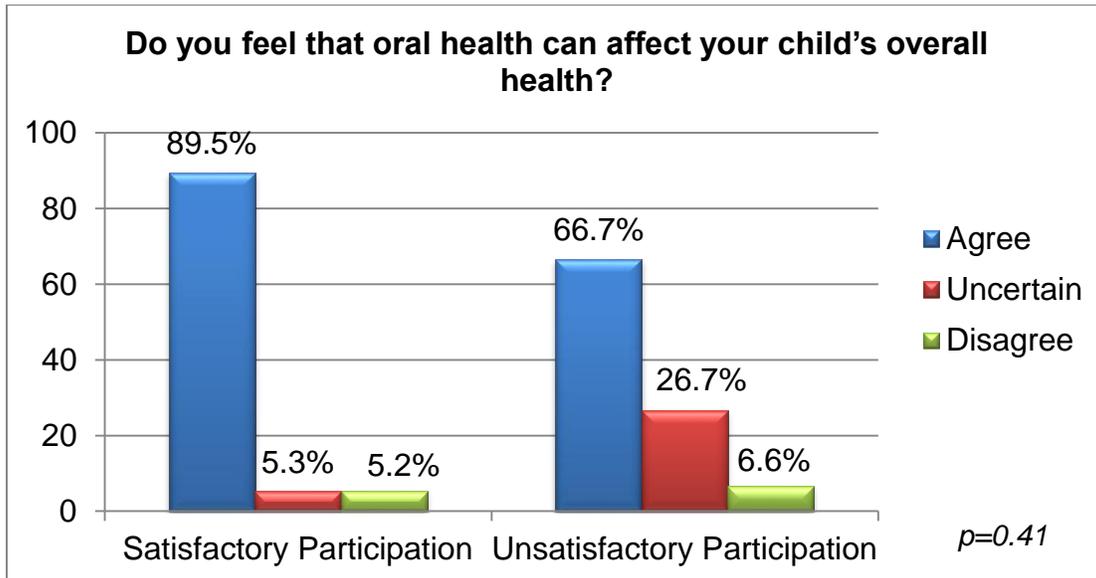


**Importance of Oral Health by School's Participation Rate**

Results regarding the importance of oral health for parents are presented in Table 2 (Appendix A). A statistically significant difference was found between the two groups in believing that oral health can affect their children overall health ( $p=0.41$ ). Almost 90% of *SP* parents agree that oral health can affect children overall health compared to 67% of *USP* parents.

Additionally, almost one third of parents from schools with lower participation reported being uncertain about the effect of oral health in children’s general health (Fig. 4).

**Figure 4-** Parent Perception on the Importance of Oral Health Related to Children’s Overall Health by School’s Participation Rate



### Focus groups

Results of the qualitative analysis related to parent perception of the School-based Oral Health Program and their suggestions of how the program can be improved are presented in this section. In addition, paraphrased remarks from participants that were captured by the moderator and note takers during the discussion are incorporated. These comments serve to highlight the participants’ experiences and opinions.

A total of 44 parents participated in the focus group discussions. There were two main suggestions that parents discussed to increase the impact of the SBOHP: (1) having more information available for parents about the SBOHP and (2) having more resources available for the SBOHP.

Parents had many ideas about how to increase the SBOHP information available to them. These suggestions ranged from simply reminding the parents of when the SBOHP was coming to their child’s school to more detailed information about the services that are offered by the SBOHP. In general, parents would like to know the schedule of days the SBOHP is coming to their specific school, the services that are provided, if there are any additional services that will be available for their children in the future and how the children can get connected to those services. Some of the suggested ways for reminders about when the SBOHP plans to come to their children’s school and the services that will be offered include: using email or regular mail, using informational posters placed around the school, using posted messages on the school

marquee, and putting posted messages on school bulletin boards. They also suggested that it would be helpful to have multiple opportunities to gather information about the SBOHP and to have the consent forms available in the school all the time.

*“Have the program send a letter from their office directly to the parents. Remember, the kids are not always going to do this, but if it is sent through the mail then the parents are more likely to know what is going on.”*

*“A lot of parents don’t read what their children bring home to them. So give them another chance. Or in that second round maybe call them.”*

Parents suggested that they would like more information or feedback about their children’s oral health. Many of the parents indicated that the dental exam paper that they receive from the SBOHP is too brief. Some of them suggested having a dental checklist that the dentist could fill out so that parents have a better understanding of their child’s oral health needs.

*“The only thing we are getting for the dentist is a paper that says ‘poor dental - go see a dentist.’ That is all we get. It would be better to get more information.”*

*“What would be nice if they could send home a list of things that they may or may not find and just check them off. Like they have a cavity. Check! This or that, check or no check.”*

Parents would also like to have a workshop for parents and children that could cover information about the SBOHP and the basics for good oral health. They suggested that the best time to plan these workshops is when all parents are at the school already, such as report card day or reading nights. Additionally, parents would like to be more involved in the SBOHP. Several of them suggested that the parent patrol can assist the program. Other participants expressed the desire of being with their children when they are getting the services.

*“I would like to have to option to sit in the room with my child when she is getting her work done.”*

*“It would be helpful to know when they are coming and to just see the operation at least once. That would be helpful.”*

## **School Personnel**

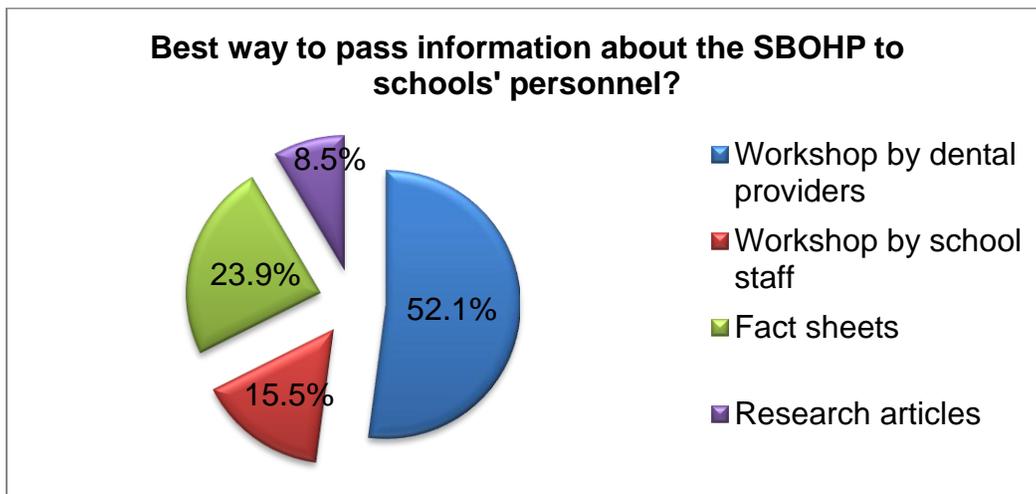
### ***Perceptions about Oral Health and the Chicago SBOHP by Schools’ Participation Rate***

Forty-four staff members were grouped into the *Satisfactory Participation (SP)* group and 28 in the *Unsatisfactory Participation (USP)* group for a total of 72 survey participants. Even though not significant differences were found between the two groups (*SP* vs. *USP*), there are some interesting findings (See Table 3, Appendix A). Half of the participants from the *SP* group expressed that they were not aware of the SBOHP compared to 32% of participants from the *USP* group (Table 3). Additionally, over one third of participants (31.8%) from the *SP* group said

they have never heard about the SBOHP as compared to 21% of participants from the *USP* group.

Overall, staff members had a good perception of the SBOHP and they consider it to be a worthwhile investment for the schools (93%). Ninety one percent of staff members expressed interest in learning more about the SBOHP and they reported that the best way to give them information is through workshops given by dental providers (52%) and fact sheets (24%)(Fig. 5). Fifteen percent of participants do not believe that poor oral health can negatively affect learning and ten percent were not sure. However, almost all of them (95%) believe that poor oral health can negatively affect general health. Almost six out of 10 (56%) staff members describe the oral health of their students as fair and one third of them describe it as good.

**Figure 5-** Schools Personnel’s Opinions about the Best Way to Share Information Regarding the Chicago School-based Oral Health Program



### Focus Groups

Sixty-four staff members participated in the focus group discussions. There were two main suggestions that staff discussed to increase the impact of the SBOHP: (1) having more information available about the SBOHP and the days they are coming to the school and (2) having additional resources for the SBOHP.

Staff members suggested that in order to increase available information about the SBOHP, there needs to be more of a presence of the program at the schools. Some of the suggested strategies included having posters around the school, placing reminders on the school marquee, handing out flyers, and sending reminders to parents and staff about the program and when they will be in the school.

*“I don’t think it’s advertised, as it should be”.*

*“It would be helpful if they were more vocal. We never know what day they are coming”.*

*"I think the info needs to be put out better, like at an open house or have posters or have it on out school signs."*

Staff discussed about the importance of having workshops related to good oral health habits and the benefits of participating in the SBOHP. They suggested that the workshops should be target to students, parents and school personnel. For students they suggested to come into the classrooms before the program provides services at the school and explain to students the importance of having good oral health and the procedures they will be providing when they come to the school. For parents they suggested to have a workshop about the importance of having their children participating in the program and the advantages of having good oral health habits. For staff members they suggested having workshops on Professional Development Days to give them information about the program and how can they enhance good oral health habits in their students.

*"It's important to let the kids be a little more informed about what's going on and how to take care of their teeth. Because it is one thing to have the dentist come in and check them and put a sealant on, but it's another thing to have the children to learn how to take care of their teeth. I think a program like this should have something like that added on."*

*"Maybe if someone came in and explained the procedure and the reason why we should have healthy teeth and things like that. Make it a little more fun for the kids, then maybe they would be more cooperative."*

*"They should explain the process to the parents; we have some parents that don't know about the program or dental health"*

*"You could do it on the Professional Development Days when the students are not here. And they could come in with a PowerPoint or something so that the teachers could be in the know on how to enhance it in the classroom."*

The staff members suggested that they would like a longer notice about when the SBOHP is coming to their school and they would like to have in advance a list of the students that will participate in the program.

*"Maybe it would be better to have a planned schedule. That way the teachers would be able to plan it and maybe have more of craft learning so no one is left behind. "*

The staff suggested several additional resources that would increase the impact of the SBOHP such as: having materials in different languages, having staff members that speak different languages, having dental providers who have experience working with children with special health care needs, and having diagrams and pictures explaining what they are going to do to the kids to use with children with special education needs. Giving free oral health materials and prizes was another suggestion.

*"The language barriers are huge. You need things that are easily translatable or have someone translate."*

*“I think it would be helpful to have a dentist that has experience with kids that have disabilities. Just because sometimes the dentist gets a little overwhelmed and the child might sense that, so it makes it even harder or looks scary for them.”*

*“Freebies are always good for the students.”*

## DISCUSSION

The main purpose of the study was to identify differences between schools that have *Satisfactory (SP)* and *Unsatisfactory (USP)* participation in the Chicago SBOHP and to identify ways to increase reach, utilization and effectiveness of the current SBOHP. Our findings indicate that differences in the participation of children in the program could be more related to the involvement of parents than to the involvement of school personnel. Significant differences supported by written survey results were found between schools with *SP* and *USP* in the parents sample but not in the school personnel sample. In general, parents from the *USP* group reported having less information about the SBOHP, had less perception of the benefits of the program for their children, were less willing to allow their children to participate in the program, and were less willing to recommend the program to other parents than parents from the *SP* group. Additionally, almost one third of *USP* parents were unsure about the negative effect of poor oral health on the general health of their children and only half of parents agreed with the statement “that poor oral health can affect children’s learning.”

Future programmatic improvement efforts should include the provision of more, detailed and advance information to parents, students, and school personnel about the SBOHP, services offered and the importance of oral health. Additionally, the SBOHP should consider creating a stronger and continued presence of the program in the Chicago Public Schools it serves. This can be accomplished by using some innovative approaches such as health marketing, which applies traditional marketing principals to health promotion and disease prevention. Participants in the study suggested using posters around the school, the school marquee, and developing workshops or presentations targeting students, parents, and school personnel. Additionally, multiple times, parents requested more detailed information about the dental status of their children, suggesting the use of a dental check-list or other format that will be easy to understand.

According to Association of State and Territorial Dental Directors (ASTDD), a preventative school oral health program may incorporate several elements, such as oral health education, dental screenings, referral for dental treatment, fluoride mouth rinsing, and sealant applications (3). The city of Chicago’s SBOHP offers all these elements except oral health education. Findings from the present study support the need for oral health education in the CPS community, for parents, students, teachers, and staff.

Most of the school personnel and a high percentage of parents acknowledged the importance of oral health as an essential component of general health. However, there is still a significantly high percentage of parents who were not sure or did not believe that oral health has an impact in their children’s learning (36%) or their general health (21%). Providing

understandable information to the CPS community on the importance of oral health and increasing the role of parents in the SBOHP will positively impact program success. Since parents are primary decision makers for the well-being of their children, an effective education campaign targeted to them will yield a significant effect on their children's participation in the program as well as their health status (10) (11). Additionally, understanding parents' perceptions of their children's oral health can help the dental provider and administrators of the Chicago SBOHP to overcome barriers that prevent participation in this program that delivers much needed preventive dental services to the CPS community (12) (13). And lastly, staff has the unique opportunity to act as health champions and periodically re-emphasize the importance of oral health, overall health and prevention and how they relate to students' learning and success.

This project identifies not only a need for dental services, but also sheds light on a knowledge gap in the availability of such services and how they are provided through the SBOHP. Both staff and parents indicated a need for better and more continuous communication about the program. Furthermore, this project demonstrates a need for oral health education in general, at all levels—teachers, staff, parents, and students. As such, the SBOHP could be enhanced by including oral health education within its program scope in addition to increasing program promotion.

The current study has several strengths. It collected quantitative (survey) and qualitative (focus groups) information from parents and school personnel which enhance the probability of identifying appropriate strategies to improve the Chicago SBOHP. The study allowed us to uncover some differences between schools that have *Satisfactory Participation* in the SBOHP and schools that have *Unsatisfactory Participation*. These differences lead to ideas and approaches that can be used to increase the participation, reach and effectiveness of the program.

The study was also limited by the sample size in both the survey and focus group discussion, which was small to accurately represent the experiences of both the parents and CPS staff and how they perceive the SBOHP. In addition, due to a recording flaw, several focus group discussions were either lost or not recorded, thereby decreasing the sample size further. In addition, while working with the schools to accommodate each interview's length, not all focus group questions could be asked at each school.

## Recommendations

- Many children and families who use the SBOHP do not have other access points for care in their community, making it even more important that the CDPH SBOHP strives to inform, educate and empower teachers, parents and children about health issues in an easily understood way. The SBOHP should work with individuals, community groups and agencies to improve communication and understanding of oral health issues that affect the health and well-being of individuals.

- Support CDPH SBOHP's transition to full SEALS implementation to enable a thorough program evaluation, monitoring for effectiveness and efficiency, and benchmarking against other national sealant programs.
- Expand the use of SEALS to create individualized reports by schools that will include improvement plans such as: increasing utilization, providing preventive education, prioritizing dental case management services to first address the needs of students with urgent treatment needs. Annually track the number of students with sealants by school and monitor data to improve this trend.
- Work to promote a CDPH-CPS-wide oral health curriculum that includes frequent short bursts of interactive oral health education that builds on prior concepts.
- Use focus group suggestions to improve the effectiveness of current marketing, consent procedures and increase the perceived value of the program. In clear language, inform principals, teachers, parents and students how the oral health care program can be used to obtain a basic level of services in an easy and convenient way, preventing dental disease and avoiding having to take time off from school to visit off-site providers.
- Market the program to teachers, parents and children in an understandable way. Pay particular attention to parents' requests that School Based Oral Health Program information and consent forms be available at all times, not just a couple weeks before the program reaches the school or at the beginning of the year. Parents also requested that the date and time of scheduled school visits should be shared multiple times and as early as possible.
- Re-examine policies and practices that affect the interaction of program staff with school personnel, in particular, the effectiveness with which schools are scheduled, and the manner in which the program operates within schools. Make attempts to coordinate with school calendar of events so that other school activities and special programming do not compete with SBOHP visits, resulting in fewer returns on positive consent forms.
- Look for other collaborations with CPS with other health promotion programs that reach children in the schools (behavioral health, smoking prevention, obesity prevention, health and healthy lifestyle, etc.) in an organized manner to bring about better health outcomes for the children.

## REFERENCES

1. **Centers for Disease Control and Prevention.** Children's Oral Health. *CDC, Division of Oral Health*. [Online] <http://www.cdc.gov/oralhealth/topics/child.htm>.
2. **Prevention, Centers for Disease Control and.** Preventing Dental Caries with Community Programs. *CDC, Division of Oral Health*. [Online] [http://www.cdc.gov/oralhealth/publications/factsheets/dental\\_caries.htm](http://www.cdc.gov/oralhealth/publications/factsheets/dental_caries.htm).
3. **Association of State & Territorial Dental Directors.** School-based Dental Sealant Programs. *Best Practice Approach Reports*. [Online] June 16, 2003. [Cited: January 23, 2011.] <http://www.astdd.org/school-based-dental-sealant-programs/#two>.
4. **National Center for Health Statistics and Centers for Disease Control and Prevention.** Healthy People 2010 Final Review. [Online] [Cited: December 27, 2011.] [http://www.cdc.gov/nchs/data/hpdata2010/hp2010\\_final\\_review.pdf](http://www.cdc.gov/nchs/data/hpdata2010/hp2010_final_review.pdf). 21-12.
5. **U.S. Department of Health and Human Services.** Healthy People 2020 topics & Objectives. *Healthypeople.gov*. [Online] November 21, 2011. [Cited: December 27, 2011.] <http://healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicid=32>.
6. **Centers for Disease Control and Prevention and the Association of State and Territorial Dental Directors.** Dental Sealants. *National Oral Health Surveillance System*. [Online] January 4, 2011. [Cited: January 23, 2011.] <http://apps.nccd.cdc.gov/nohss/IndicatorV.asp?Indicator=1>.
7. **Chicago Community Oral Health Forum.** The burden of Oral Diseases in Chicago. *Heartland Alliance*. [Online] November 2011. [Cited: December 27, 2011.] [http://www.heartlandalliance.org/oralhealth/tools/the\\_burden\\_of\\_oral\\_disease\\_in\\_chicago.pdf](http://www.heartlandalliance.org/oralhealth/tools/the_burden_of_oral_disease_in_chicago.pdf).
8. **Centers for Disease Control and Prevention and Association of State and Territorial Dental Directors.** Untreated Tooth Decay. *National Oral Health Surveillance System*. [Online] January 4, 2011. [Cited: January 23, 2011.] <http://apps.nccd.cdc.gov/nohss/IndicatorV.asp?Indicator=3>.
9. **Chicago Public Schools.** Stats and Facts. *CPS*. [Online] August 30, 2011. [http://www.cps.edu/About\\_CPS/At-a-glance/Pages/Stats\\_and\\_facts.aspx](http://www.cps.edu/About_CPS/At-a-glance/Pages/Stats_and_facts.aspx).
10. *Family structure and children's use of ambulatory physician services.* **Cafferata GL, Kasper JD.** 23, 1985, *Med Care*, pp. 350-360.
11. **Hickson GB, Clayton EW.** Parents and their children's doctors. *Handbook of parenting*. Mahwah, N.J. : Bornstein MH, ed., 2002, Vol. 5, pp. 439-62.
12. *Parental perceptions of their preschool-aged children's oral health.* **Talekar BS, Rozier RG, Slade GD, Ennett ST.** 136(3), 2005, *J Am Dent Assoc*, pp. 364-372.
13. *Psychosocial factors and early childhood caries among low-income African-American children in Detroit.* **Finlayson TL, Siefert K, Ismail AI, Sohn W.** 35(6), 2007, *Community Dent Oral Epidemiol*, pp. 439-48.

## APPENDICES

### Appendix A: Tables

**Table 1-** Parents' Perceptions of the Chicago School-based Oral Health Program by Schools' Participation Rate (n=68)

Variables	Satisfactory Participation % (#)	Unsatisfactory Participation % (#)	Total % (#)	<i>p-value</i>
<b>Awareness of SBOHP</b>				.174
Yes	73.7% (28)	60% (18)	67.6% (46)	
No	26.3% (10)	40% (12)	32.4% (22)	
<b>How you hear about SBOHP</b>				.446
School	76.3% (29)	70% (21)	73.5% (50)	
Child	5.3% (2)	10% (3)	7.4% (5)	
Parent	5.3% (2)	0.0%	2.9% (2)	
Never heard	13.2% (5)	20% (6)	16.2% (11)	
<b>SBOHP beneficial for child</b>				.175
Very Beneficial	77.8% (28)	56.7% (17)	68.2% (45)	
Fairly Beneficial	19.4% (7)	40% (12)	28.8% (19)	
No benefit	2.8% (1)	3.3% (1)	3.0% (2)	
<b>Understand services of SBOHP</b>				.744
Understand Completely	65.8% (25)	56.7% (17)	61.8% (42)	
Fairly Understand	28.9% (11)	36.7% (11)	32.4% (22)	
Don't Understand	5.3% (2)	6.7% (2)	5.9% (4)	
<b>SBOHP was accessible for Child</b>				.442
Completely accessible	81.1% (30)	76.7% (23)	79.1% (53)	
Fairly Accessible	18.9% (7)	23.3% (7)	20.9% (14)	

<b>Allow your child to participate in SBOHP</b> Yes No	97.4% (37) 2.6% (1)	83.3% (25) 16.7% (5)	91.2% (62) 8.8% (6)	<b>.043</b>
<b>Recommend SBOHP to another parent</b> Yes No	100% (38) 0.0%	86.2% (25) 13.8% (4)	94% (63) 6.0% (4)	<b>.031</b>
<b>Rate SBOHP dental services</b> Excellent Good Fair Poor	37.8% (14) 51.4% (19) 5.4% (2) 5.4% (2)	48.3% (14) 41.4% (12) 10.3% (3) 0.0%	42.4% (28) 47.0% (31) 7.6% (5) 3.0% (2)	<b>.415</b>
<b>Rate the SBOHP</b> Excellent Good Fair Poor	54.1% (20) 37.8% (14) 2.7% (1) 5.4% (2)	37.9% (11) 51.7% (15) 10.3% (3) 0.0%	47% (31) 43.9% (29) 6.1% (4) 3.0% (2)	<b>.191</b>

**Table 2-** Importance of Oral Health for Parents by Schools' Participation Rate in the Chicago School-based Oral Health Program (n=68)

<b>Variables</b>	<b>Satisfactory Participation % (#)</b>	<b>Unsatisfactory Participation % (#)</b>	<b>Total % (#)</b>	<b><i>p-value</i></b>
<b>How important is Oral Health in child's life</b>				.075
Very important	92.1% (35)	76.7% (23)	85.3% (58)	
Somewhat important	7.9% (3)	23.3% (7)	14.7% (10)	
<b>Describe child's oral health</b>				.456
Excellent	36.8% (14)	50% (15)	42.6% (29)	
Good	55.3% (21)	40% (12)	48.5% (33)	
Fair	7.9% (3)	10% (3)	8.8% (6)	
<b>Can oral health affect your child health</b>				<b>.041</b>
Agree	89.5% (34)	66.7% (20)	79.4% (54)	
Uncertain	5.3% (2)	26.7% (8)	14.7% (10)	
Disagree	5.3% (2)	6.7% (2)	5.9% (4)	
<b>Can poor oral health affect child's learning</b>				.177
Agree	73% (27)	53.3% (16)	64.2% (43)	
Uncertain	21.6% (8)	30% (9)	25.4% (17)	
Disagree	5.4% (2)	16.7% (5)	10.4% (7)	

**Table 3-** Schools' Personnel Perception of the Chicago School-based Oral Health Program and the Importance of Oral Health by Schools' Participation Rate (n=72)

Variables	Satisfactory Participation	Unsatisfactory Participation	Total	<i>p-value</i>
<b>Awareness of SBOHP</b>				.136
Yes	50% (22)	67.9% (19)	56.9% (41)	
No	50% (22)	32.1% (9)	43.1% (31)	
<b>Hear of SBOHP</b>				.603
School	56.8% (25)	67.9% (19)	61.1% (44)	
Another School	11.4% (5)	10.7% (3)	11.1% (8)	
Never heard of SBOHP	31.8% (14)	21.4% (6)	27.8% (20)	
<b>Would you allow students to participate in SBOHP</b>				.556
Yes	88.6% (39)	92.9% (26)	90.3% (65)	
Yes, with reservation	11.4% (5)	7.1% (2)	9.7% (7)	
<b>Recommend SBOHP to another School</b>				.563
Yes	95.5% (42)	89.3% (25)	93.1% (67)	
Yes, with reservation	2.3% (1)	3.6% (1)	2.8% (2)	
No	2.3% (1)	7.1% (2)	4.2% (3)	
<b>SBOHP worthwhile investment</b>				.369
Agree	90.9% (40)	96.4% (27)	93.1% (67)	
Uncertain	9.1% (4)	3.6% (1)	6.9% (5)	
<b>Rate the SBOHP</b>				.094
Excellent	21.9% (7)	40% (10)	29.8% (17)	
Good	59.4% (19)	28% (7)	45.6% (26)	
Fair	18.8% (6)	28% (7)	22.8% (13)	
Poor	0	4% (1)	1.8% (1)	
<b>Satisfied with SBOHP</b>				.170
Very	34.4% (11)	41.7% (10)	37.5% (21)	
Somewhat	21.9% (7)	8.3% (2)	16.1% (9)	
Satisfied	40.6% (13)	29.2% (7)	35.7% (20)	
Less than	3.1% (1)	16.7% (4)	8.9% (5)	
Very unsatisfied	0.0%	4.2% (1)	1.8% (1)	

<b>Preference to continue participate in the SBOHP</b>				.477
Yes	70% (29)	71.4% (20)	71% (49)	
No	4.9% (2)	0.0%	2.9% (2)	
Maybe	24.4% (10)	28.6% (8)	26.1% (18)	
<b>Interested in learning more about SBOHP</b>				.727
Yes	90.5% (38)	92.9% (26)	91.4% (64)	
No	9.5% (4)	7.1% (2)	8.6% (6)	
<b>Best Route to pass information</b>				.088
Research articles	14% (6)	0.0%	8.5% (6)	
Fact sheet	18.6% (8)	32.1% (9)	23.9% (17)	
Workshop by dental providers	55.8% (24)	46.4% (13)	52.1% (37)	
Workshop by school staff	11.6% (5)	21.4% (6)	15.5% (11)	
<b>Duration of SBOHP</b>				.197
Shorter (1-2 days)	32.5% (13)	51.9% (14)	40.3% (27)	
Medium (2-3 days)	40% (16)	18.5% (5)	31.3% (21)	
Longer (3-4 days)	25% (10)	29.6% (8)	26.9% (18)	
None	2.5% (1)	0.0%	1.5% (1)	
<b>Oral health negatively affect learning</b>				.448
Yes	75% (33)	75% (21)	75% (54)	
No	18.2% (8)	10.7% (3)	15.3% (11)	
Don't Know	6.8% (3)	14.3% (4)	9.7% (7)	
<b>Oral Health affect Health</b>				.896
Agree	95.5% (42)	92.9% (26)	94.4% (68)	
Uncertain	2.3% (1)	3.6% (1)	2.8% (2)	
Disagree	2.3% (1)	3.6% (1)	2.8% (2)	

<b>Describe students oral health</b>				.587
Good	33.3% (14)	29.6% (8)	31.9% (22)	
Fair	52.4% (22)	63.0 (17)	56.5% (39)	
Poor	14.3% (6)	7.4% (2)	11.6% (8)	

## Appendix B: Parent Survey Form

1. *Before today, have you ever heard of the School-Based Oral Health Program?*
  - a. Yes
  - b. No
2. *How did you first hear of the School-based Oral Health Program?*
  - a. The School
  - b. Your Child
  - c. A Parent
  - d. Don't know
  - e. Never heard about the program
3. *In your opinion, is the School-Based Oral Health Program beneficial for your child?*
  - a. Very beneficial
  - b. Fairly beneficial
  - c. Slightly beneficial
  - d. No benefit at all
4. *In your opinion, do you feel that you understand all of the dental services that are offered by the School-Based Oral Health Program?*
  - a. Understand completely
  - b. Fairly understand
  - c. Slightly understand
  - d. Don't understand
5. *In your opinion, do you feel that the School-Based Oral Health Program was accessible for you and your child?*
  - a. Completely accessible
  - b. Fairly accessible
  - c. Slightly inaccessible
  - d. Completely inaccessible
6. *If you haven't already, would you permit your child to participate in the School-Based Oral Health Program?*
  - a. Yes
  - b. No
7. *Would you recommend the School-Based Oral Health Program to another parent and child?*
  - a. Yes
  - b. No
8. *How would you Rate the dental services that are provided by the School-based Oral Health Program?*
  - a. Excellent
  - b. Good

- c. Fair
- d. Poor

9. *Overall, how would you rate the School-based Oral health Program?*

- a. Excellent
- b. Good
- c. Fair
- d. Poor

10. *In your opinion, how important is Oral Health in your child's life?*

- a. Very important
- b. Somewhat important
- c. Somewhat not important
- d. Very not important

11. *In your opinion, how would you describe your child's oral health?*

- a. Excellent
- b. Good
- c. Fair
- d. Poor

12. *In your opinion, do you feel that oral health can affect your child's overall health?*

- a. Agree
- b. Uncertain
- c. Disagree

13. *In your opinion, do you feel that POOR oral health can affect your child's learning?*

- a. Agree
- b. Uncertain
- c. Disagree

## Appendix C: Staff Survey Form

1. *Before today, have you ever heard of the School-Based Oral Health Program?*
  - a. Yes
  - b. No
  
2. *Where did you first hear about the School-Based Oral Health Program?*
  - a. From your school
  - b. From another CPS school
  - c. A continuing education workshop
  - d. From a parent
  - e. Never heard of the program
  
3. *In your opinion, can oral health negatively affect your student's learning?*
  - a. Yes
  - b. No
  - c. Don't Know
  
4. *In your opinion, do you feel that oral health can affect your student's overall health?*
  - a. Agree
  - b. Uncertain
  - c. Disagree
  
5. *Overall, how would you describe your students' oral health?*
  - a. Excellent
  - b. Good
  - c. Fair
  - d. Poor
  
6. *If it were only up to you, would you allow your students to participate in the School-Based Oral Health program?*
  - a. Yes, Recommend
  - b. Yes, Recommend but with reservations
  - c. No, No recommendation
  
7. *Would you recommend another CPS school to participate in the School-Oral Health Program?*
  - a. Yes, Recommend
  - b. Yes, Recommend but with reservations
  - c. No Recommendation
  
8. *Since there are limited class hours in a school day do you feel that the School-Based Oral Health Program is a worthwhile investment for your School?*

- a. Agree
  - b. Uncertain
  - c. Disagree
9. *How would you rate the performance of the school-based dental sealant program at your school?*
- a. Excellent
  - b. Good
  - c. Fair
  - d. Poor
10. *Overall, how satisfied are you with the school based dental sealant program?*
- a. Very satisfied
  - b. Somewhat satisfied
  - c. Satisfied
  - d. Less than satisfied
  - e. Very unsatisfied
11. *Would you be interested in learning more about Oral health and the School-Based Oral Health Program?*
- a. Yes
  - b. No
12. *What would be the best way to pass information about the School-Based Oral Health Program?*
- a. Recommendations of research articles
  - b. A short one page fact sheet
  - c. Informational workshop provided by the dental providers
  - d. Informational workshop with other teachers or school staff that have participated in the program
13. *Are you interested in continuing to participate in the School-Based Oral Health Program?*
- a. Yes
  - b. No
  - c. Maybe
14. *What would you rather have for the duration of the School-Based Oral Health Program?*
- a. (1-2 days): A shorter duration of the program but a larger quantity of students would be seen at one time.
  - b. (2-3 days): Medium duration of the program but a smaller quantity of students seen at one time.
  - c. (3-4): Longer duration of the program but a smaller quantity of students seen at a time
  - d. None
  - e.

## Appendix D: Parent Focus Group Questions

1. In your own words, please explain what Oral Health means to you?
  - Can Poor Oral health affect your child's overall health?
  - Can Poor Oral Health affect your child's learning?
2. Are you aware of the School-Based oral health program?
  - Did your child participate in the Program?
  - Why or why not
3. Do you know what services the program offers?
  - What are your thoughts about the services?
4. Did you all receive a consent form send out last year before the School-based Oral health program? What are your thoughts about the (consent form) information sent home to you?
  - Was it helpful
  - Was it Clear
  - What do you think? Any concerns?
5. What are your thoughts about the dental providers?
  - Were they Professional
  - Nice
  - Your thoughts?
6. Did any of you get a referral to a dentist?
  - Was this helpful?
  - What are your thoughts?
7. Overall how would you rate the School based Oral Health Program?
  - What do you like about the program?
  - What do you dislike or find frustrating about the program?
8. Do you have any thoughts on how to make the School-based oral health program better and easier to use?
  - For your child?
  - For yourself?
  - For your School?

## Appendix E: Staff Focus Group Questions

1. In your own words, please explain what “Oral Health” means to you?  
Clarifying question: What is dental health?
2. In your opinion, can oral health affect a students learning or even their grades?
  - Why or Why Not?
3. What have you heard of the School-based Oral Health Program?
  - What is it?
4. What are your thoughts of the Program?
5. Why did your school select to participate in the school- based sealant program?
  - Are the advantages or disadvantages in the participating?
6. How does your school decide to participate in the program?
  - IS it Parent Groups, Principal, teachers, CPS?
7. Generally, how does the school staff feel about participating in the SBOH program?
  - Why?
  - Can you walk me through the whole experience of participating in the School based Oral Health Program?
    - What works?
    - What can we change or needs improvement?
    - Any ideas how to improve these
8. Can you explain how the students respond and react to the School-Based Oral Health program?
  - Excited
  - Nervous
  - Just another day
  - How can it be a better experience for them?
9. We all know that there are limited hours in a school day but do you feel that the school based sealant program is a worthwhile investment for the School and child?
  - Why? Why Not?

10. What are your thoughts about the Consent Forms that allow your students to participate in the Program?

- When do they usually come to you?
- When do you usually send them home?
- Is there usually a large return rate?
- How can we increase this rate?
- Are there usually questions with the consent forms?

11. What are your thoughts or how do you feel about the dental providers that have come to your school?

- Are they:
  - Accommodating, profession, good with the kids, ?

12. What would be the best situation or least hassle for you and your school of when the Dental providers to come to your school? How long do the providers usually stay?

- Would you rather have:
  - Shorter stay: but more students seen at once. Get in get out. Greater Disturbance?
  - Longer stay, see less students at a time. Less of a Disturbance?
  - What would be better?

13. Overall how would you rate the School based Oral Health Program?

- What do you like about the program?
- What do you dislike or find frustrating about the program?

14. Would you recommend the school-based dental sealant program to another school?

1. Why or Why not?
2. Explain?

In your opinion, how could the school-based dental sealant program better serve your school and your children?

2011

Chicago Community  
Oral Health Forum

Chicago Department of  
Public Health

Chicago Public  
Schools

Oral Health America

## Appendix F: Schools Summary Report



# THE CHICAGO PUBLIC SCHOOL COMMUNITY – PERCEPTIONS OF ORAL HEALTH AND THE SCHOOL-BASED ORAL HEALTH PROGRAM





Dear Principal,

The Chicago Community Oral Health Forum and the Chicago Department of Public Health would like to thank you and your school for participating in the “Assessment of the Chicago Public School’s oral health knowledge to increase the capacity of the School-based Dental Sealant Program” study. The main purpose of the project was to identify differences between schools that have high participation in the School-based Oral Health Program and schools that have low participation and to use this information to increase the reach of the SBOHP. Your involvement, as well as the cooperation of your teachers, staff and parents greatly contributed to its successful completion and collection of high quality data.

As a token of our appreciation, and as promised, we would like to share with you the results from the study. Enclosed you will find a summary of the project along with results from the survey and focus groups.

We hope that this was a valuable health educational opportunity for everyone involved. Again, thank you for your support. Should you have any questions please contact any of the agencies below.

Sincerely,

Kimberly Bartolomucci  
Chicago Community Oral Health Forum  
Phone: (312) 636 3070  
Email: [Kbartolomucci@heartlandalliance.org](mailto:Kbartolomucci@heartlandalliance.org)

Mary Pat Burgess  
Chicago Department of Public Health  
Phone: (312) 747-8304  
Email: [burgess\\_marypat@cdph.org](mailto:burgess_marypat@cdph.org)

Virginia Montgomery  
Chicago Public Schools  
Phone: (773) 553-5662  
Email: [vamontgomery@cps.k12.il.us](mailto:vamontgomery@cps.k12.il.us)

## Introduction

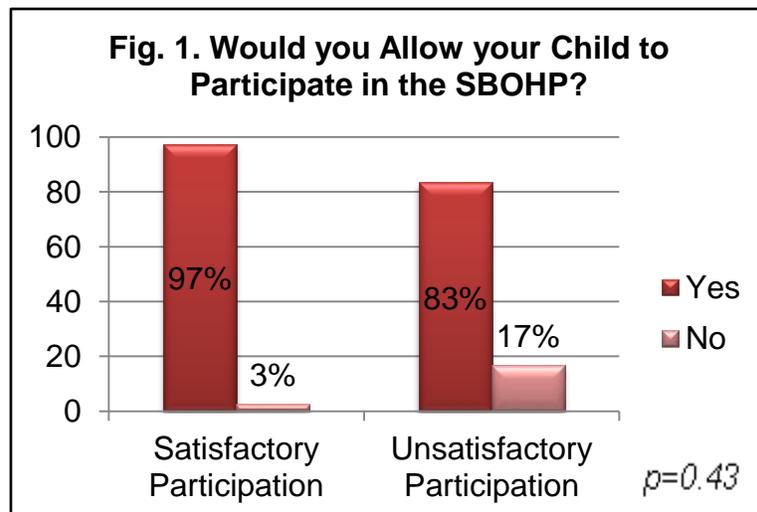
- Dental caries are the most common chronic disease affecting U.S. children.
  - They are 5 times more common than asthma and 7 times more common than hay fever.
- An estimated 51 million school hours per year are missed due to dental pain.
- The majority of dental diseases are highly preventable.

## Summary of the Project

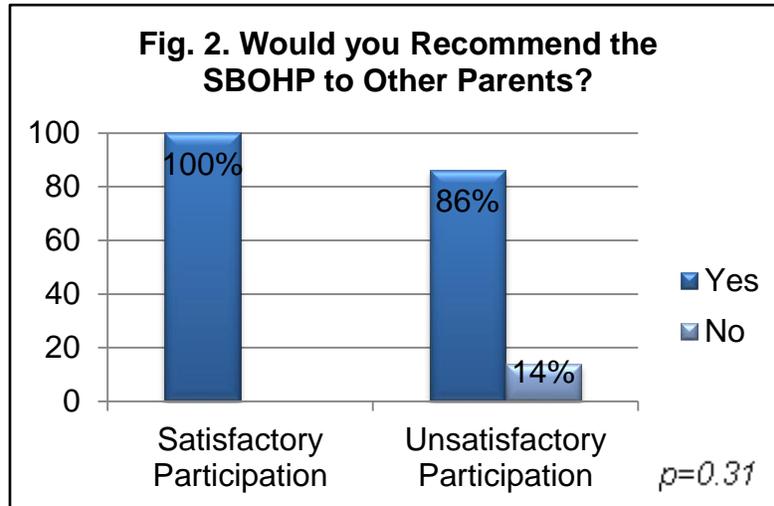
- The main purpose of the study was to identify differences between schools that have high rates of participation in the School-based Oral Health Program (SBOHP) and schools with lower participation rates.
- A total of 140 persons from 9 different Chicago Public Schools participated in the study:
  - Parents = 68 participants
  - School Personnel = 72 participants
- Schools were divided in 2 groups according to their involvement in the SBOHP:
  - “*Satisfactory Participation*” (SP): Refers to schools that have 40% or more eligible students who returned the consent forms participate in the program.
  - “*Unsatisfactory Participation*” (USP): Refers to schools that have less than 40% of the students who returned the consent forms.
- Findings in this summary are presented in two sections:
  - Results from parents (survey and focus groups)
  - Results from school personnel (survey and focus groups)

## Results from Parents Survey

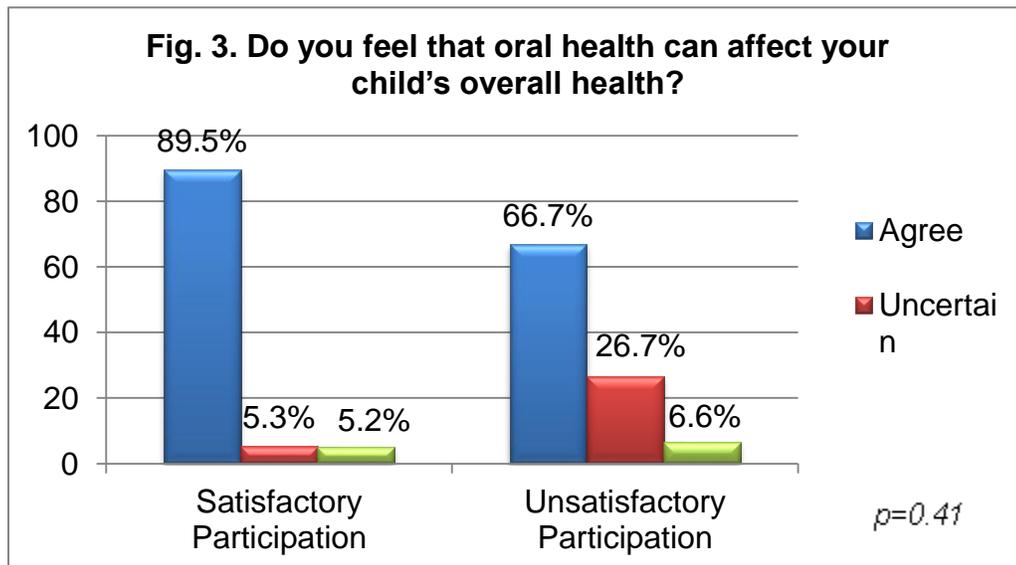
- Parents from SP schools were more aware about the SBOHP (74%) than parents from USP schools (60%).
- SP parents perceive more of the benefits of the SBOHP (78%) than USP parents (57%).
- Some important differences were found between the two groups of schools:
  - SP parents are more willing to allow their children to participate in the SBOHP than USP parents (Fig.1).



- *SP* parents are more willing to recommend the program to other parents than *USP* parents (Fig. 2).



- Ninety percent of *SP* parents agree that oral health can affect children's overall health as compared to 67% of *USP* (Fig. 3).

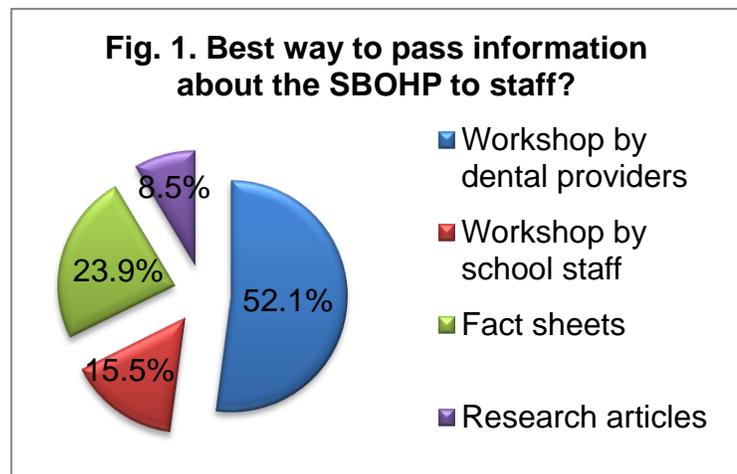


## Parents: Focus Groups

- Forty-four parents participated in the focus group discussions.
- Suggestions about how to increase available information about SBOHP for parents:
  - Send reminders to parents about when the program is coming to the school.
  - Send information about the services that will be provided.
  - Best ways to send information to parents:
    - Email or regular mail.
    - Placing posters around the school.
    - Posting messages on the school marquee.
    - Posting messages on school bulletin boards.
- Parents would like more information (feedback) about their children's oral health needs by using a dental check list that the dentist could fill out.
- They would like to have workshops for parents and children that cover information about the SBOHP and the basics for good oral health. The best time to plan these workshops is when parents are already at the school, such as report card day or reading nights.
- Parents would like to be more involved in the SBOHP. Some suggestions:
  - Parent patrol can assist the program.
  - Parents can be present when their children are getting the services.

## School Personnel: Survey Results

- Staff members have a good perception of the SBOHP and they consider it to be a worthwhile investment for the schools (93%).
- Ninety-one percent of staff members expressed interest in learning more about the SBOHP.
- The best way to give them information about the program is through workshops given by dental providers (52%) and fact sheets (24%) (Fig. 1).



- Fifteen percent of participants do not believe that poor oral health can negatively affect learning and ten percent were not sure.
- Ninety-five percent of school personnel believe that poor oral health can negatively affect general health.
- No significant differences were found between staff members from *SP* schools vs. *USP* schools. However, there are some interesting findings. In general, staff members from *USP* schools were more aware about the presence of the SBOHP in schools than staff members from *SP* schools:

- Fifty percent of staff members from the *SP* group expressed that they were not aware about the SBOHP compared to 32% of participants from the *USP* group.
- One third (32%) of staff members from the *SP* group said they have never heard about the SBOHP as compared to 21% of participants from the *USP* group.

### **School Personnel: Focus Groups**

- Sixty-four staff members participated in the focus group discussions.
- Staff members suggested to increase available information about the SBOHP in the schools by:
  - Having posters around the school
  - Having reminders on the school marquee
  - Handing out flyers
  - Sending reminders to parents and staff about the program and when they will be in the school.
- Staff discussed the importance of having workshops related to good oral health habits and the benefits of participating in the SBOHP. The workshops should be targeted to students, parents and school personnel. Suggested strategies to deliver workshops:
  - For students to come into the classrooms before the program provides services at the school and have people with the program explain to students the importance of having good oral health and the procedures they will be providing when they come to the school.
  - For parents to have a workshop about the importance of having their children participating in the program and the advantages of having good oral health habits.
  - For staff members to have workshops on Professional Development Days to give information about the SBOHP and how can they enhance good oral health habits in their students.
- Staff members would like to have longer notice about when the SBOHP is coming to their school and to have in advance a list of the students who will participate in the program.
- To increase the impact of the SBOHP, staff members suggested:
  - Having materials in different languages
  - Having dental providers that speak different languages
  - Having dental providers who have experience working with children with special health care needs
  - Having diagrams and pictures explaining what they are going to do to the kids to use with children with special education needs
  - Giving free oral health materials and work prizes to students