Office of Oral Health
Maryland Department of Health and Mental Hygiene

Helping Maryland Smile

Maryland Public Health Dental Hygiene Act

Impact Study

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Executive Summary

The Maryland Office of Oral Heath (OOH) was awarded funding by the American Public Health Association (APHA)[1] to evaluate the impact of the Public Health Dental Hygiene Act of 2008. This Act allows public health dental hygienists to provide any procedure allowed under the scope of practice for dental hygienists (as established by the Maryland State Board of Dental Examiners) in public health settings without an examination by a dentist and/or having a dentist on-site. The goals of this Act were to increase oral health prevention and education services to low-income populations and to increase access to care for underserved populations in Maryland.

This study evaluated the law's impact in Maryland. Specifically, the evaluation asked twelve research questions related to the extent to which there has been a change in the number of dental hygienists and dentists working in public health facilities since the bill passed; whether their scope of work within these facilities has changed; the extent to which more children are receiving preventative services now than before the bill passed; whether more patients are being seen by dentists and dental hygienists since the bill passed; what factors, if any, helped facilitate the implementation of the Act, as well as barriers that may have prevented implementation; and, whether or not public health facilities have written internal policies related to the Act.

Methodology

The evaluation used a mixed methods strategy to collect qualitative and quantitative data. Quantitatively, the evaluator analyzed pre-existing oral health data. Qualitatively, she conducted site visits comprised of in-person and telephone interviews with public health dental hygienists, dentists, and agency administrators who are employed by Local Health Departments (LHDs) and Federally Qualified Health Centers (FQHCs). Additionally, the evaluator conducted telephone interviews with representatives from dental organizations in Maryland. All data collection instruments were submitted and approved by the Maryland Department of Health and Mental Hygiene's Institutional Review Board.

Findings

Findings from this study show that a majority of public health dental facilities in Maryland did not change their general supervision procedures as a result of the Public Health Dental Hygiene Act. Of the 35 LHDs and FQHCs represented in this study (85.3% of the total), 16 (or slightly less than half) now operate under the law of general supervision. Of those 16, approximately five already had Waivers of Supervision prior to 2008. Interviewees shared some explanations and opinions, a major one being that

[1] APHA received funds for this project from the Centers for Disease Control and Prevention (CDC), as part of the National Public Health Improvement Initiative (NPHII). The contents of this report are solely the responsibility of the authors and do not represent any official views or endorsement by CDC. This report is not designed to support or defeat enactment of any legislation, pending before Congress or any state or local legislature. Federal, state, tribal and local jurisdictions apply differing rules regarding engagement with legislative bodies and other policy-related activities. Jurisdictions considering legal or other policy initiatives should seek the assistance of state or local legal counsel. Additional guidance for CDC funded recipients may be found at www.cdc.gov/od/pgo/funding/grants/foamain.shtm.

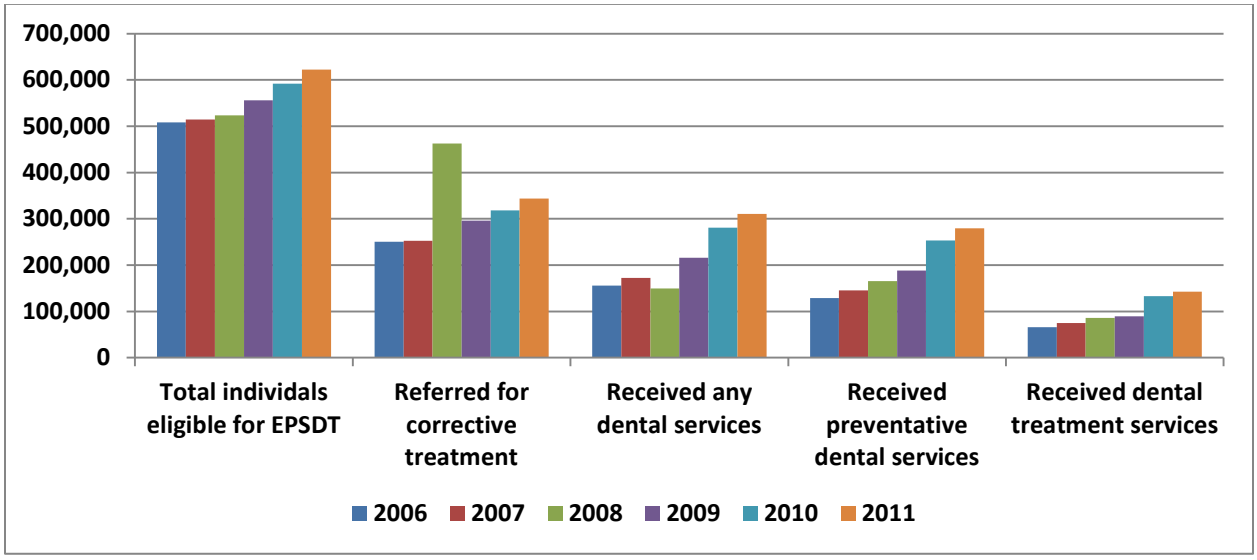
not many people (including those in the public health dental field) are aware of the Act and what it actually means.

Although the study revealed that many public health facilities do not operate under general supervision, those that do unanimously expressed its positive outcomes, including:

- Increase in the number of children screened in schools;
- Increase in the number of children in schools who receive sealants and/or fluoride varnish;
- Increased sense of value felt by dental hygienists;
- Increased value placed on dental hygienists by dentists, administrators, and the general public;
- Increased restorative care services provided by dentists;
- Increased number of oral cancer screenings conducted for seniors;
- Decreased spending on services that can now be administered by hygienists, as opposed to dentists; and
- Increased number of patients (of all ages) seen by a dentist and/or a dental hygienist.

These positive outcomes demonstrate how Maryland's passing of the Public Health Dental Hygiene Act succeeded in achieving the original goals of increasing oral health prevention and education services to low-income populations and increasing access to care for underserved populations. The chart below illustrates the increase in the proportion of eligible Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) children ages 0-20 who received dental services each year from 2006-2011.

Proportion of Eligible EPSDT Children (Ages 0-20) Who Received Services Each Year from 2006-2011



Recommendations

Based on findings from this study, it is recommended that OOH and stakeholders of the Public Health Dental Hygiene Act take the following actions:

1. Educate the public health dental community, especially dentists and hygienists, about the Act.

2. OOH and/or the Board of Dental Examiners should clarify differences between the Waiver of Supervision that existed prior to the Act and the current requirements needed to practice under general supervision.

3. Develop a formal definition for "public health dental hygienist" and make it known in the public health dental community in Maryland.

4. Develop a formal definition and description of what constitutes a "public health dental facility" in Maryland and make it known to the public health dental community.

5. Develop a "how to" guide for public health dental clinics that discusses ways in which they can benefit from the law and how they can change their practices to be in compliance. This guide might include case studies highlighting the successes of dental clinics that made changes to their general supervision practices after the Act passed.

"We were sitting on the edge of our seat waiting for the law to pass. This was mostly for our school-based program. We knew that our dentist would no longer need to go to the schools and conduct all of the screenings. Our hygienist could handle it and, ultimately we would be able to see more kids and make a larger impact in our community." - FQHC Public Health Administrator

Background

Access to oral health services is widely recognized at both the national and state level as a problem that is exacerbated by distinct racial, income, age, and geographic disparities. Poor oral health can lead to serious health consequences, cause needless pain and suffering, and affect the ability to speak, eat and learn. As residents in Maryland and other states have learned, poor oral health can also lead to death.

> *"A simple toothache can be fatal. That is the sobering message a 12-year-old Maryland boy left when, after his dental problems went untreated, he succumbed to a severe brain infection. Deamonte Driver's life could have been spared if his infected tooth was simply removed -- a procedure costing just $80."* [2]

In February 2007, Deamonte Driver died from a brain infection caused by bacteria from tooth decay. In response to this devastating tragedy, Maryland formed a Dental Action Committee that was charged by the Legislature with reviewing state laws and policies related to oral health care and making recommendations aimed at improving access to care for the state's under-insured and uninsured. Following the committee's recommendations, the Maryland General Assembly unanimously passed the Public Health Dental Hygiene Act in October 2008. This bill increased the number of providers serving under- and uninsured populations by allowing dental hygienists to practice under "general supervision." This allowed hygienists who meet specific criteria (see Appendix A for complete Act) and who work for public health agencies to perform all duties within their scope of practice in off-site settings such as schools, Head Start, and WIC programs without a dentist being physically present and/or examining the patient first. To practice under general supervision as the Act permits, public health clinics are required to submit a letter to the Maryland Board of Dental Examiners stating their intentions, listing all dentists and dental hygienists who work for the facility, and outlining a medical emergency plan. Prior to the Act passing, public health dental facilities could apply for a Waiver of Supervision that allowed similar practices. However, there was an application process and the Dental Board could reject applications.

The Public Health Dental Hygiene Act was enacted primarily to improve access to oral health care for children in Maryland. Prior to the passing of this legislation, dental hygienists who were qualified to provide preventive clinical services were under-utilized in non-traditional, off-site settings. As a result,

[2] http://abcnews.go.com/Health/Dental/story?id=2925584&page=1

opportunities to provide educational and preventive oral health services in convenient locations where large numbers of children routinely were located were missed. Allowing dental hygienists the flexibility to offer certain services in non-traditional settings would potentially increase the number of patients seen both in the field and in a clinic. It also gave dental hygienists the opportunity to refer patients to a dental home[3] and enabled dentists to focus on providing restorative care in clinics.

Introduction

The Maryland Office of Oral Heath (OOH) was awarded funding by the American Public Health Association (APHA)[4] to evaluate the impact of the Public Health Dental Hygiene Act of 2008. This Act allows public health dental hygienists to provide any procedure allowed under the scope of practice for dental hygienists as established by the Maryland State Board of Dental Examiners in public health settings without an examination by a dentist and/or having a dentist on-site. The goals of this Act were to increase oral health prevention and education services to low-income populations and to increase access to care for underserved populations in Maryland.

This study evaluated the law's impact in Maryland. Specifically, the evaluation sought answers to the following questions:

1. To what extent, if any, has there been a change in the number of dental hygienists working in public health facilities[5] (one year prior to the bill and three years after the bill)?
2. To what extent, if any, has there been a change in the number of dentists working in public health facilities (one year prior to the bill and three years after the bill)?
3. How many and what proportion of children are receiving preventive services now vs. before the Act (one year prior to the bill and three years after the bill)?
4. Were there any factors that facilitated the implementation of the Act? Were there any barriers blocking the implementation of the act? If so, what? What are different strategies agencies have used to overcome barriers?
5. To what extent, if any, has there been a change in the number of patients seen by dentists in public health facilities (including the number of youths seen, the number of youth that had

[3] According to the American Academy of Pediatrics, a "dental home" is defined as a primary dental care provider system that is accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective. http://www.nationalguidelines.org/glossary.cfm.

[4] APHA received funds for this project from the Centers for Disease Control and Prevention (CDC), as part of the National Public Health Improvement Initiative (NPHII). The contents of this report are solely the responsibility of the authors and do not represent any official views or endorsement by CDC. This report is not designed to support or defeat enactment of any legislation, pending before Congress or any state or local legislature. Federal, state, tribal and local jurisdictions apply differing rules regarding engagement with legislative bodies and other policy-related activities. Jurisdictions considering legal or other policy initiatives should seek the assistance of state or local legal counsel. Additional guidance for CDC funded recipients may be found at www.cdc.gov/od/pgo/funding/grants/foamain.shtm.

[5] This includes dental facilities owned and operated by federal, State, or local government; health facilities licensed by the Department of Health and Mental Hygiene; facilities providing medical care to the poor, elderly, or handicapped that is owned and operated by the State or local government or a bona fide charitable organization; or any other setting authorized under regulations adopted by the Board.

dental visits, and number of exams as a result of not having to accompany hygienists to site visits)?

6. What policies related to the Act do public health facilities have in place?
7. To what extent, if any, are dental hygienists used differently now than before the legislation? If there have been changes, how has this impacted the work dentists perform?
8. To what extent, if any, are dental hygienists working within their full scope of practice in public health facilities?
9. Who is receiving referrals? What is the process for determining to whom the referrals are made?
10. Are there other populations that are being seen by dentists and dental hygienists more often than before the Act?
11. How do stakeholders define public health dental facilities?
12. How are public health facilities funded?

To answer these questions, the evaluator developed a logic model (Appendix B) of the Public Dental Hygiene Act to illustrate its original overarching goals, the activities that occurred leading up to its passing, outputs, and short-term, intermediate, and long-term outcomes that policy makers and stakeholders hoped it would achieve. An evaluation plan (Appendix C) was also created which showed how outcomes from the logic model would be measured using indicators of success.

Methodology

This evaluation assessed the impact of the Public Health Dental Hygiene Act on Maryland's quest to increase oral health prevention and education services to low-income populations and access to care for underserved populations. The evaluation sample included dental organizations, dental hygienists, dentists, and program administrators working in public health facilities. The evaluation used a mixed methods strategy to collect qualitative and quantitative data. Quantitatively, the evaluator analyzed existing OOH internal public health data, the Eastern Shore Case Management database, WIC, Head Start Program Information Reports (PIR), OOH Program Reports, HRSA health data, and Medicaid data to assess access to dental services. Qualitatively, OOH conducted site visits comprised of in-person and telephone interviews with public health dental hygienists, dentists, and agency administrators who are employed by local health departments (LHDs) or federally qualified health centers (FQHCs). Additionally, the evaluator conducted telephone interviews with representatives from dental organizations, including the Maryland Dental Action Coalition (MDAC), the Maryland Dental Hygienists Association (MDHA), Community Maryland Department of Health Integrated Partnerships (CHIP), the Children's Regional Oral Health Consortium (CROC), and the Maryland Oral Health Association (MOHA). All data collection instruments were submitted to the Maryland Department of Health and Mental Hygiene's Institutional Review Board for approval. (See Appendix D for copies of interview guides used in this study).

Those invited to participate were given a Statement of Disclosure which outlined the purpose of the study and how their input would be helpful. The disclosure also explained that participation was optional and it would not impact any relationship they have with the State of Maryland. All public health site administrators were sent an email inviting them to participate. Interviewees were given the option

of participating by telephone or in-person, and if those options did not work, by responding to a Survey Monkey questionnaire. Evaluators followed up with non-respondents via email and telephone calls. A majority of administrators were successfully contacted and most willingly participated (85.3%). Table 1 lists all LHDs and FQHCs in Maryland with an "X" by the organizations that are represented in the study.

Table 1: Maryland Local Health Departments and Federally Qualified Health Centers Study Participation

Local Health Departments Response Rate=83.3%	Participated
1. Allegany County	X
2. Anne Arundel	X
3. Baltimore City	X
4. Baltimore County	X
5. Calvert County	X
6. Caroline County	X
7. Carroll County	Opted out
8. Cecil County	X
9. Charles County	X
10. Dorchester County	X
11. Frederick County	X
12. Garrett County	X
13. Harford County	X
14. Howard County	X
15. Kent County	X
16. Montgomery County	X
17. Prince George's County	X
18. Queen Anne's County	X
19. Somerset County	Opted out
20. St. Mary's County	No response
21. Talbot County	No response

Federally Qualified Health Centers Response Rate=88.2%	Participated
1. Baltimore City - South Baltimore (Health Department)	**X**
2. Baltimore City - Total Health	**No response**
3. Baltimore City - Chase Brexton	**X**
4. Baltimore City - Parkwest	**X**
5. Baltimore City - People's Community	**X**
6. Baltimore City - Family Health Center, Inc.	**X**
7. Baltimore City - Healthcare for the Homeless	**No response**
8. Baltimore County - Chase Brexton	**X**
9. Caroline County - Choptank	**X**
10. Charles County - Nanjemoy	**X**
11. Dorchester County - Choptank	**X**
12. Howard County - Chase Brexton	**X**
13. Montgomery County - Community Clinics, Inc.	**X**
14. Prince George's County - Greater Baden	**X**
15. Somerset County - Three Lower Counties	**X**
16. Washington County - Walnut Street	**X**
17. Community Clinic Inc.	**X**

***The overall response rate for both LHDs and FQHCs was 85.3%.**

22.	Washington County	X
23.	Wicomico County	X
24.	Worcester County	X

After public health administrators expressed willingness to participate, they were asked for contact information for public health dental hygienists and dentists who work in their clinics. Most administrators complied and provided information for at least one hygienist; however, some were reluctant to provide dentist(s)' information. This was attributed mostly to their busy schedules and lack of free time to participate in an interview or respond to an online questionnaire. Unfortunately, many of the dentists whose information was provided did not respond to emails or phone calls. Interviews were also conducted with dental hygiene school program representatives and one Head Start representative. Table 2 lists the total number and source of interviews conducted for this study.

Table 2: Total Number of Interviews Conducted

Data Sources	# Interviewed
Public Health Dental Hygienists[6]	22
Public Health Dentists	9
Public Health Administrators	28
Dental Hygiene School Program Representatives	5
Head Start Representative	1
Total Number of Interviews Conducted for Study	**65**

Of the public health administrators interviewed, six were from FQHCs and 22 were from LHDs. Six of the 22 dental hygienists participating were from FQHCs and 16 were from LHDs. Two of the dentists were from FQHCs and seven were from LHDs.

Limitations

This study yielded high quality data that will help OOH and its stakeholders better understand the impact of the Public Health Dental Hygiene Act. However, as is the case with all social science research, inherent limitations exist. One such limitation for this study pertains to the response rates for dentists and dental hygienists. Although the number of public health facilities in Maryland is relatively small (41), there was a high response from public health administrators, meaning that the data are statistically

[6] Although 22 interviews were conducted with public health hygienists, some hygienists were from the same location.

relevant and can be generalized for the overall population of public health dental facilities in the state. On the other hand, the number of responses from public health hygienists can only be described as fair; dentists' response rate was low. Therefore, the interpretation of these findings must be viewed with caution; these data should not be generalized for the entire population of public health hygienists and dentists in Maryland.

Two other limitations that may have come into play are purposeful misrepresentation and social desirability. In these cases, it is possible that respondents intentionally distorted their responses or answered questions in ways they feel are more desirable to the interviewer. To limit the likelihood of the occurrence of these threats, our interviewers read an introduction to participants that clearly outlined the confidentiality protocol for the interview, along with the importance of their honest responses.

Findings

This study assessed the extent to which the expected outcomes of the Public Health Dental Hygiene Act were achieved by conducting analysis of pre-existing oral health data, interviews with public health administrators, public health dental hygienists, dentists, and representatives from dental health organizations in Maryland. The findings are presented under the heading of each evaluation question. The outcomes identified in the Evaluation Plan (Appendix C) are discussed in the narrative.

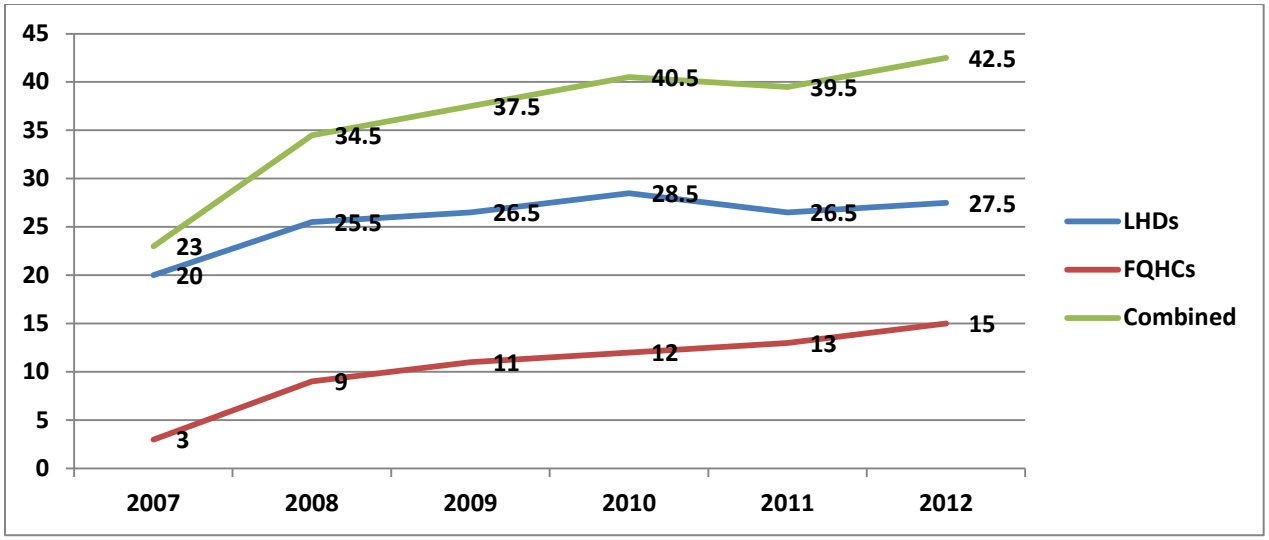
1. To what extent, if any, has there been a change in the number of dental hygienists working in public health facilities?

To assess the extent to which there has been a change in the number of dental hygienists working in public health facilities, public health administrators were asked to provide the number of dental hygienists that have worked in their clinics from 2007 (if clinics existed at that time) to the present. Additionally, dental hygiene school representatives were asked to characterize any increases or changes in the number of students wanting to pursue careers in public health, and dental hygienists were asked to describe how they entered the public health field, how long they have been in the dental hygiene field, and whether or not they work elsewhere in addition to their current public health role.

Chart 2 illustrates the number of dental hygienists employed by public health dental facilities over the last six years.[7] These totals include full-time staff hygienists and full- and part-time contractors. The data are also broken down by FQHCs and LHDs.

[7] If a clinic was not open before 2008, a zero was counted for the number of hygienists.

Chart 2: Number of Hygienists Employed at Public Health Dental Facilities in Maryland from 2007-2012 (N=20)[8]



As shown in Chart 2, the number of hygienists working in public health dental settings almost doubled between 2007 and 2012. Although this increase cannot be fully attributed to the Public Health Dental Hygiene Act, many public health site administrators indicated that the Act enabled them to increase the number of hygienists they employ and/or increase the number of hours their hygienists work. Three administrators attributed their ability to create new public health hygienist positions in their clinics to the new law. Also, after 2008, three[9] more public health dental health clinics opened their doors in Maryland.

When asked to what extent (if any) they think that the number of dental hygienists working in the public health setting has increased since the Act passed, three participants indicated that they see more students in their schools wanting to go into public health. However, two of those shared that they cannot confirm that their students actually pursue public health work upon graduation, their doubts stemming from their knowledge of disparities in pay between public health and private clinics. One participant said that she is sure more students pursue public health now than before the Act:

> *"I think there are a lot more. Because of the awareness and that people know about the role of the public health hygienist, it is more appealing. My faculty discusses this role in their classes. It has opened up more opportunities beyond the traditional dental office."*

The remaining two dental hygiene school representatives said they have no idea if the numbers have increased.

Of the 22 dental hygienists interviewed, over half have been in the dental hygiene field for more than 20 years. The average number of years in the field is 20.9 and the median is 21. The least number of years

[8] The total number of public health administrators who provided information for this includes unique sites and ones that have at least one part-time hygienist.
[9] This number includes only those sites that participated in this study and indicated their clinics opened in 2008 or after.

spent in the field is two years and the highest number of years is the field is 47. Four of the 22 hygienists (18.1%) work in private practice in addition to their work in an LHD (no dental hygienists that participated in this study that work in an FQHC work in private practice).

The responses that dental hygienists provided when asked how they entered the public health field fell into four categories. They are:

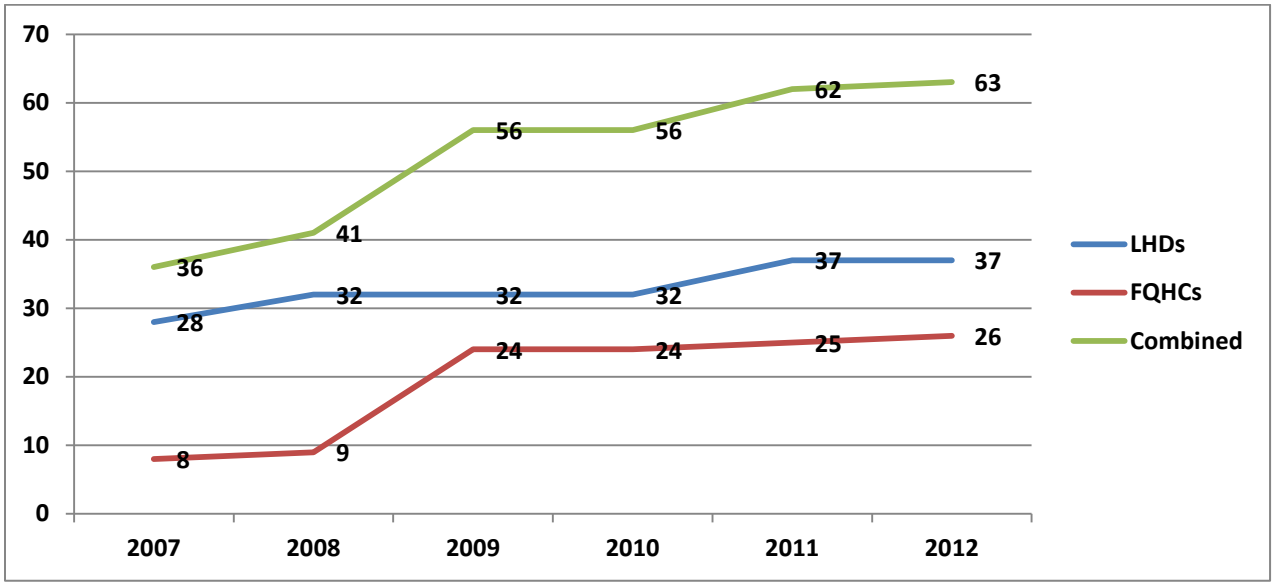
1. Accepted a job right out of dental hygiene school in public health (but applied to both private practices and public health positions);
2. Saw an ad online or in the paper while working in private practice and applied and were hired;
3. Someone referred them to the position while they worked in private practice; and
4. Learned about the public health field in school and only wanted to pursue this type of work.

A majority (77.2%) of the dental hygienists interviewed worked in private practice before accepting a position in the public health field.

2. To what extent, if any, has there been a change in the number of dentists working in public health facilities?

Public Health Administrators were asked for the number of dentists that worked in their clinics from 2007 (if clinics existed) to the present. This includes full- and part-time dentists that are either staff or are contracted. Chart 3 illustrates the number of dentists working in public health dental facilities over the last six years. The data are broken down by LHDs and FQHCs as well combined.

Chart 3: Number of Dentists Employed by Public Health Dental Facilities in Maryland from 2007-2012 (N=18)



The number of dentists employed or contracted by public health clinics over the past five years has increased, just as the number of hygienists increased. This correlates with the increase in the number of public health dental clinics operating in Maryland after 2008.[10]

In September 2007, only 12 of the 24 jurisdictions (23 counties and Baltimore City) had LHDs with clinical oral health services available on-site. Of these, only nine provided oral health care to Medicaid recipients. The Dental Action Committee (DAC) focused attention on these issues. This resulted in the 2007 Oral Health Safety Net legislation (SB 181/HB 30), which directed OOH to expand the oral health infrastructure through development and enhancement of local oral health programs. Since that time, efforts have been made to strengthen the oral health safety net in every jurisdiction, with a particular emphasis on counties without public oral health services. The majority of LHDs throughout Maryland receive annual grants from OOH to provide oral health services to children and adults. These services include clinical services, dental sealants, education, oral cancer screening, and fluoride treatments.

In Maryland, there are 16 FQHCs with 95 service delivery sites. About half of FQHCs provide oral health services to individuals enrolled in Medicaid, but these programs exist only in limited areas of the state. For instance, on the Eastern Shore, nine counties are served by only two FQHCs. The majority of the state's FQHCs are located in central Maryland, with one-third of the centers located in Baltimore City.[11]

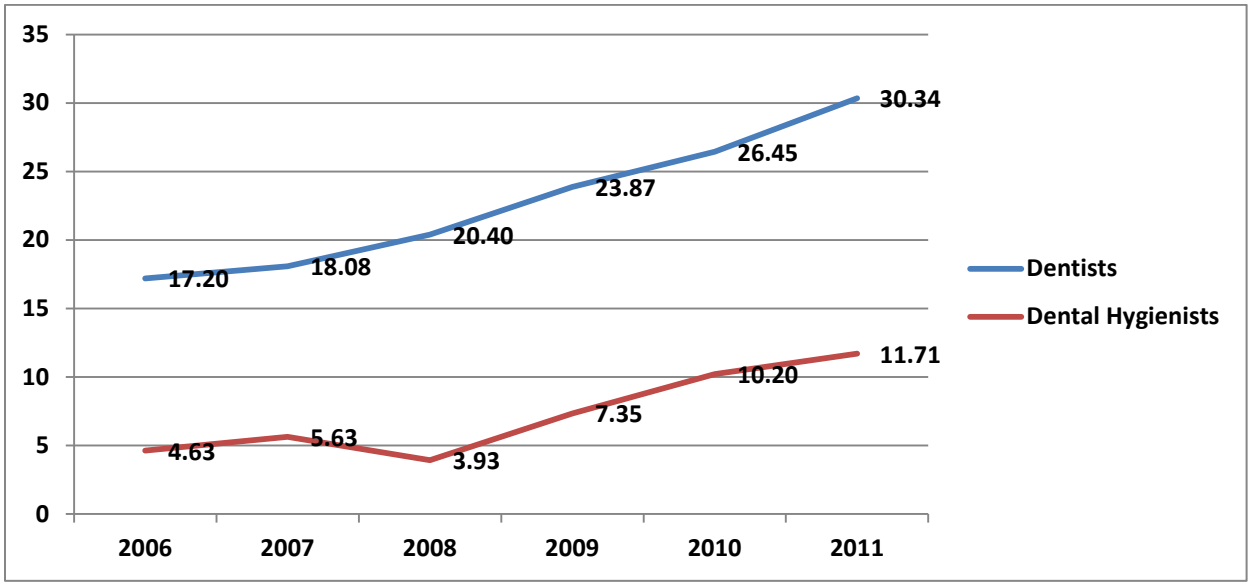
The HRSA Health Center Program tracks the number of full-time dental hygienists and dentists in FQHCs in states across the country.[12] Similar to the increases shown in Chart 2 and 3 above, Chart 4 shows an overall increase in the number of full-time dentists and dental hygienists working in FQHCs from 2006-2011. Surprisingly, there was a small drop in the number of full-time dental hygienists between 2007 and 2008. However, the number has since increased each subsequent year.

[10] Data for the number of public health dental clinics in Maryland between 2006-2011 were not available; however, because of HRSA funding received in 2005, OOH funds more LHDs than they did before receiving the grant.

[11] Maryland Oral Health Plan 2011-2015 Report

[12] http://bphc.hrsa.gov/healthcenterdatastatistics/StateData/2008/MD/2008_MD_TOT_Summary_Data.html

Chart 4: Number of Dentists and Dental Hygienists at FQHCs Each Year Between 2006-2011



In addition to these statistics, dentists that were interviewed also provided information on how they entered the public health field, the length of time they have been in the dental field, and whether or not they currently work in private practice in addition to at an LHD or FQHC. The mean number of years that the dentists have been in the field is 14 (five being the least number of years and 28 being the highest). The mean number of years the dentists have worked at their current location is 3.1 years. Only one said they currently also work in private practice. When asked how they entered the public health field, one dentist said that he/she answered an ad and was hired without considering what it meant to work in public health. The remaining eight dentists all provided responses related to helping people in need, paying back the community, and/or working with children.

3. How many and what proportion of children are receiving preventive services now vs. before the Act?

To examine if there was any change in the number and proportion of children in Maryland receiving preventive services before and after the Act passed, Medicaid's Early and Periodic Screening, Diagnosis, and Treatment (EPSDT) data were examined. [13] The EPSDT benefit provides comprehensive and preventive health care services for children under age 21 who are enrolled in Medicaid. EPSDT is key to ensuring that children and adolescents receive appropriate preventive, dental, mental health, and developmental, and specialty services.

As shown in Chart 5 and Table 3 below, the number and proportion of children receiving preventive services between 2006 and 2011 increased significantly. It is important to note that these numbers only include data from those children and young adults (ages 0-20) enrolled in Medicaid.

[13] http://mchb.hrsa.gov/epsdt/datamonitoring.html

Chart 5: Number of Children and Young Adults Ages 0-20 Enrolled in Medicaid who Received Oral Health Preventive Services

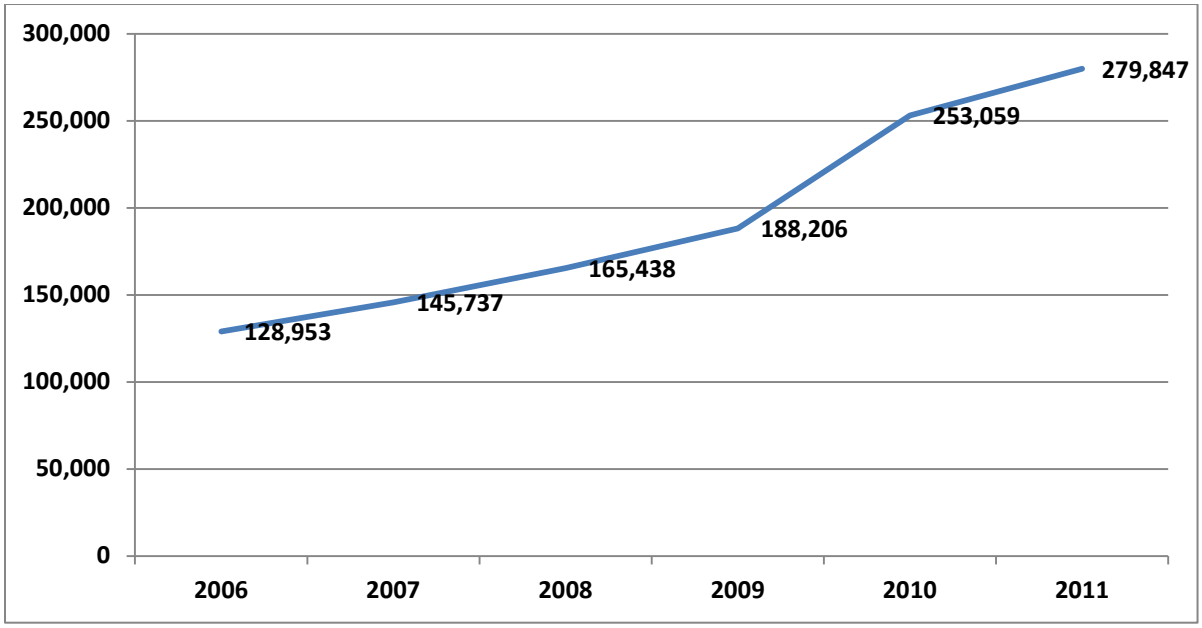


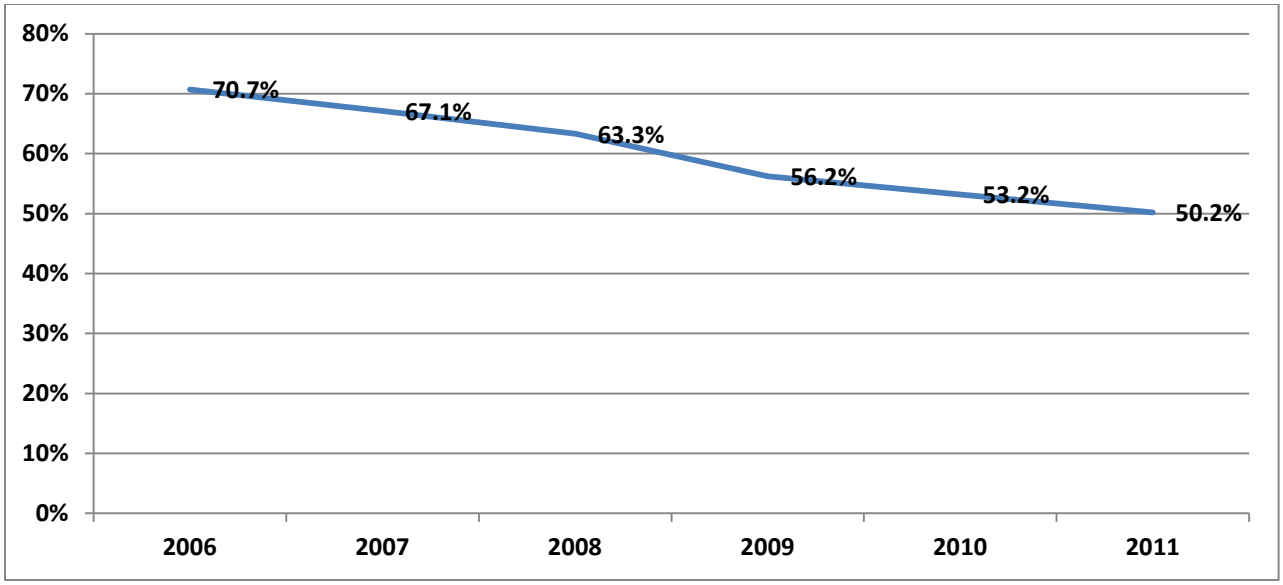
Table 3: Proportion of Children and Young Adults Ages 0-20 Receiving Preventive Oral Health Care versus the Total Number Eligible

Year	Total Individuals Eligible for EPDST	Total Eligible Individuals Receiving Preventive Treatment	Proportion That Received Preventive Treatment
2006	507,946	128,953	25.30%
2007	514,777	145,737	28.30%
2008	523,789	165,438	31.50%
2009	556,206	188,206	33.80%
2010	591,820	253,059	42.70%
2011	622,131	279,847	44.98%

According to the Annie E. Casey Foundation's KIDS COUNT Web Site[14], the percentage of children who do not receive annual dental care in Maryland has steadily decreased since 2006 (between 3% and 4%). After the Act passed in 2008, there was a sudden large decrease of 7.1%. However, after that the rate decreased to 3% for 2009-2010 and 2010-2011. Chart 6 displays the rate each year over time.

[14] http://datacenter.kidscount.org/?gclid=CMPGoN7E27QCFcuZ4Aod3hcAhA. Note that Kids Count's Maryland data came from the Maryland Dental Action Committee Report and the HealthChoice Dental Access CY2007 Report.

Chart 6: Number of Children Not Receiving Annual Dental Care in Maryland from 2006-2011 as Reported by the Annie E. Casey Foundation



Direct causality cannot be attributed to the Act. However, public health administrators whose clinics operate under general supervision commented on how the Act has affected the number of people they can treat each year:

- "We could not operate without the law passing. Our clinic operates much more efficiently now. There are a lot more kids now who have their teeth looked at."
- "We are reaching way more kids now and many are being matched to dental homes. Before the Act passed, things were way more restrictive. We could not help as many children. The dentist had to be at the schools and it slowed things down tremendously. Dentists need to be in the office doing restorative care. They don't need to be out in the community doing screenings."

4. Were there any factors that facilitated the implementation of the Act? Were there any barriers blocking the implementation of the Act? What different strategies have agencies used to overcome barriers?

To understand what factors came into play during the implementation of the Public Health Dental Hygiene Act, public health site administrators, dental hygienists, and dentists were asked a series of questions. First, they were asked, "Are you aware of, and/or what is your understanding of the Public Health Dental Hygiene Act?" If they answered yes, they were then asked to describe any changes they made or observed being made following the Act's implementation. If changes were described, a follow-up question asked them about barriers and enablers in implementing changes. If no changes were described, they were then asked why no changes were made, and if appropriate, if there were barriers that prevented implementation of the Act. Of the three groups (public health administrators, hygienists, and dentists), public health administrators, followed by hygienists, were most familiar with the Act and could describe its history and purpose. Dentists were least familiar with the Act, and three of them were

not familiar with it at all. Table 4 illustrates the number from each group who indicated familiarity with the Act and those who made or observed changes at their sites.

Table 4: Number of Public Health Administrators, Dental Hygienists, and Dentists Who are Familiar with the Act and Made/Did Not Make (or Observe) Changes

	#/% Who Heard of the Act	#/% Who Had Not Heard of the Act	#/% Who Made or Observed Changes	#/% Who Did Not Make or Observe Changes
Public Health Site Administrators	**27 96.4%**	**1 3.6%**	**12 42.8%**	**16 57.1%**
Dental Hygienists	**19 86.3%**	**3 13.6%**	**5[15] 22.7%**	**17 77.2%**
Dentists	**6 66.6%**	**3 33.3%**	**2 22.2%**	**7 77.7%**

Several public health administrators and hygienists spoke about the Dental Board of Examiners General Supervision Waiver and the fact that their sites were already operating under it and practicing under general supervision before the Act passed in 2008. In fact, three hygienists and two site administrators were not even sure of the differences between the Act and the Waiver, and therefore could not confidently say that their sites operated under the Act. One FQHC administrator commented, "The Public Health Dental Hygiene Act certainly allows us to see more kids quicker. My only confusion is with how the State Dental Board fits in. Why do we still need to have a waiver? I don't understand how they fit together and why the waiver is still a requirement." This comment is particularly interesting and important because it demonstrates the confusion that exists among public health administrators in Maryland. There are at least a few administrators who do not understand the Public Health Dental Hygiene Act and how it replaced the Waiver of On-Site Dental Hygiene Supervision process.

Of the administrators, hygienists, and dentists who were familiar with the Act and had made or observed changes, a few identified barriers they had encountered. Those mentioned at least twice included:

- Dentists who did not want to accept hygienists' new privileges;
- Dental hygienists did not feel comfortable working without a dentist on-site;
- Budget restrictions that prevented the hiring of a public health dental hygienist;
- Head Start laws that do not allow for general supervision;
- Explaining the Act to dentists and securing their buy-in;
- Finding a public health dental hygienist with the required years of experience and who wanted to work in public health for a smaller salary; and
- The site's current hygienist did not meet the Act's requirements and they were therefore unable to make changes unless they fired him/her.

[15] This small number is partially attributed to the number of dental hygienists who did not work in their clinics until after 2008.

One LHD site administrator mentioned an additional barrier. He/she said that given the fact that private dentists in his/her town offer reduced rates for low-income patients, it would cost his/her clinic more to operate under general supervision: "With fluoride varnish and sealants, we have the best dental encounter rate in the county. Our kids are getting them at private dental offices. If we had a dental hygienist going into the schools do the work instead, we would lose money because we would need to pay him or her. We would also hurt our relationships with the private dentists."

When asked about ways in which they handled the barriers they encountered, most public health site administrators said they did not really do much. Two who indicated that their dentists did not want to accept new changes and privileges allowed by the Act did not do anything and continued to operate just as they did before the Act. One said that he/she did not feel comfortable implementing new rules in the clinic due to the fact that their dentists offer much of their time pro bono; the other believed that the clinic was already running efficiently and that did not need to make any changes because they did not intend to send a hygienist to schools alone. The public health dental hygienists and dentists interviewed did not describe any additional barriers.

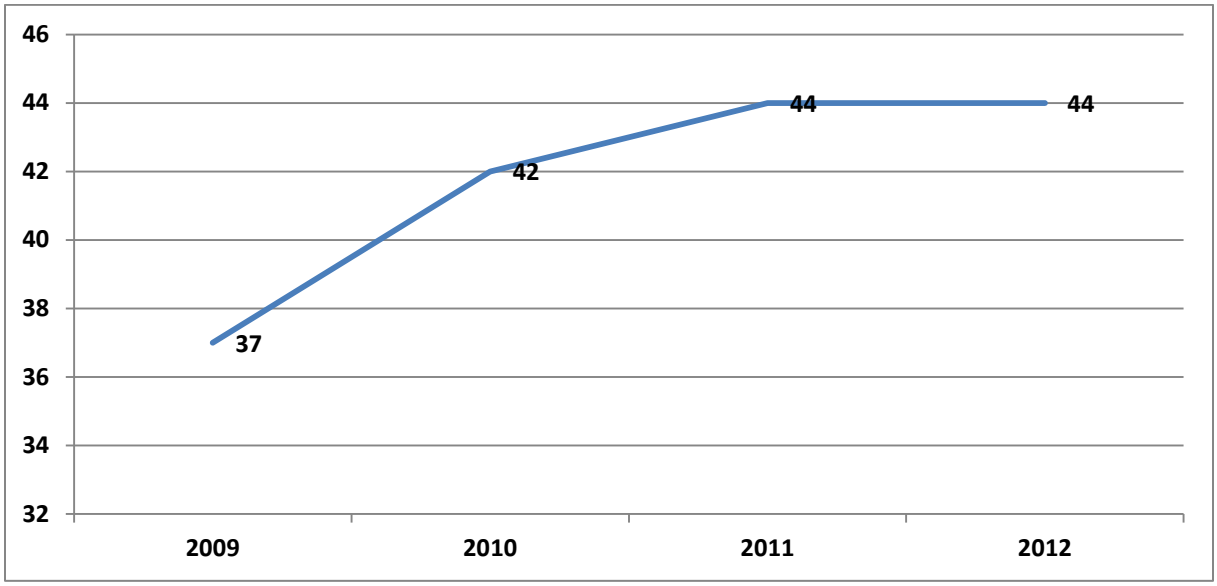
The remaining administrators, hygienists, and dentists who had observed or made changes at their site said that they had not encountered any barriers. One administrator described how the Act was something they were prepared for and were ready to "hit the ground running" with as soon as it passed.

When asked about factors that facilitated implementation and what sites already had in place to allow them to adapt to the Act, the most common response given was funding. Many public health site administrators expressed that they wanted to have dental hygienists in the clinic and also out in the community doing outreach and programming such as fluoride varnish and sealants. Ideally, if they had enough funding and resources to have hygienists full-time in the clinic and someone handling the work out of the office and in the community, they felt that they would be most effective and see more patients.. Other factors mentioned included already having dental hygienists on staff who met the requirements of the Act (see Appendix A for requirements under the Act) and were able to immediately operate under general supervision; having dentists who understood and were willing to work under the Act; and having schools that wanted to participate in fluoride varnish and sealant programs.

Aside from the interviews described above, data on facilities in Maryland that operate under general supervision from 2009-2012 were available from the Maryland State Board of Dental Examiners. Unfortunately, data years prior to the Act's implementation were not available. Chart 7 illustrates the number of sites[16] that operated under general supervision over the four year period.

[16] These numbers include public health clinics, health departments, Head Starts, and nursing homes.

Chart 7: Number of Facilities in Maryland that Operated Under General Supervision (2009 – 2012)



From 2009-2011, there was a steady jump in the number of clinics operating under general supervision. In 2012, however, the number remained the same.

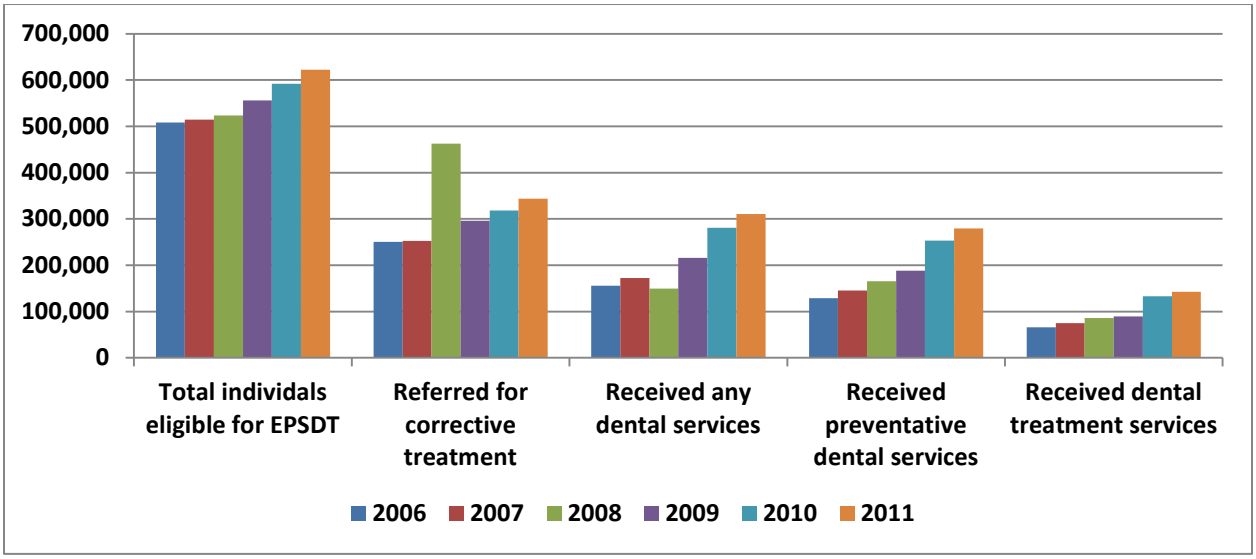
5. To what extent, if any, has there been a change in the number of patients seen by dentists in public health facilities (including the number of youths seen, the number of youths that had dental visits, and number of exams as a result of not having to accompany hygienists to site visits)?

Approximately one-quarter of public health dental facilities were able to provide data on the number of patients seen in their clinics by dentists and dental hygienists (both children and adults). Unfortunately, much of these data were collected and reported in different ways, making it impossible to aggregate and report on them as a whole. Instead this study examined EPSDT data for the total eligible Medicaid population of children and young adults (0-20), along with those that were referred for corrective treatment or received any dental services, preventive dental services, and dental treatment services each year from 2006-2010 and HRSA data. Table 5 shows the number of total eligible each year for EPSDT, and Chart 8 displays the percentage of children eligible for EPSDT services that received different services each year over the five year period.

Table 5: Number of total Eligible Children for EPSDT (Ages 0-20) 2006-2010

	2006	2007	2008	2009	2010
Total number of children eligible for EPSDT	**507,946**	**514,777**	**523,789**	**556,206**	**591,820**

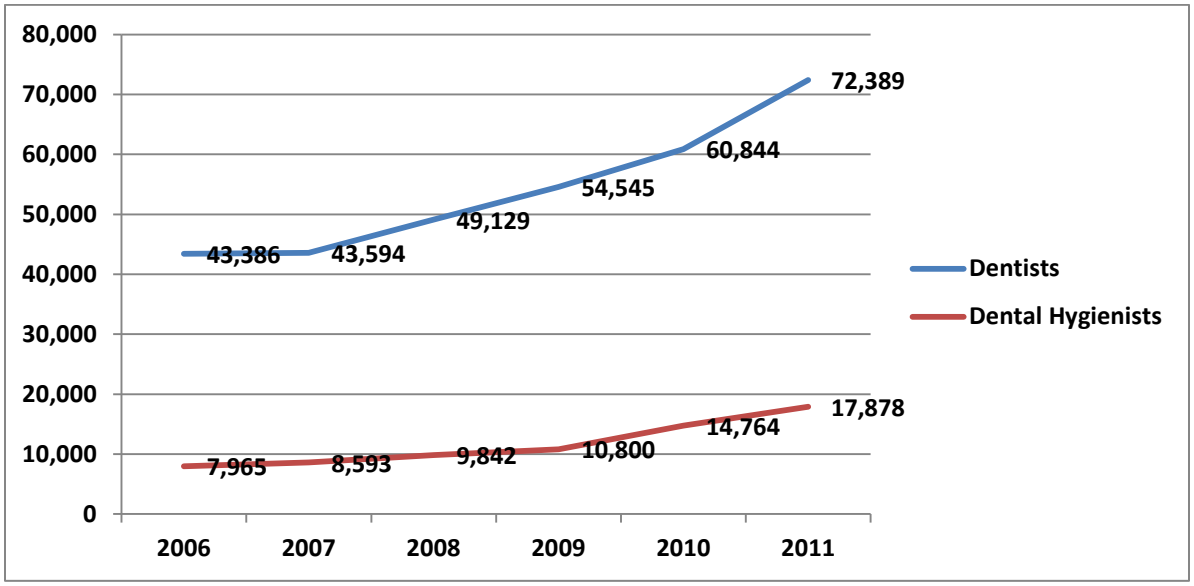
Chart 8: Proportion of Eligible EPSDT Children (Ages 0-20) Who Received Services Each Year from 2006-2011



As shown in Chart 8, 2008 was an interesting outlier for the percentage of eligible EPSDT children who were referred for corrective treatment. The Act passed in October 2008; therefore, it most likely did not have a large impact on that year's referrals. However, Deamonte Driver's death may have played some role. Otherwise, there was a steady increase in the percentages for all services from 2006-2011.

HRSA's data on FQHCs also showed an increase in the number of Maryland residents receiving services from public health dentists and dental hygienists. As shown in Chart 9, more children had clinic visits with dentists and dental hygienists each year from 2006-2011; the number increased even more after the Public Health Dental Hygiene Act passed. Interestingly, there was a huge jump in the number of dentist visits between 2010 and 2011.

Chart 9: Number of Patient Visits in Maryland FQHCs Each Year from 2006-2011



Lastly, another data source that demonstrates an increase in the number of children who are examined by a dentist each year is OOH's reporting of utilization rates of children on Medicaid.[17] Table 6 shows these data.

Table 6: Percentage of Children Who Had at Least One Dental Encounter by Age Group, Enrolled for Any Period

Age Group	CY 2006	CY 2007	CY 2008	CY 2009	CY 2010
0-3	7.9%	10.0%	12.3%	18.6%	22.5%
4-5	37.2%	42.4%	47.7%	56.0%	59.8%
6-9	42.3%	47.6%	53.1%	60.7%	63.6%
10-14	39.5%	44.2%	48.8%	56.4%	58.7%
15-18	32.3%	35.8%	39.5%	46.0%	48.2%
19-20	18.4%	20.1%	23.4%	30.1%	30.3%
TOTAL	**29.3%**	**32.9%**	**36.7%**	**43.8%**	**46.8%**

*Most newborns and infants are not expected to use dental services. As a result, the dental service rate for the 0-3 age group should be interpreted with caution.

As shown in Table 6, the utilization rates of children with any period of enrollment have significantly increased over the five year period for all age groups. It is important to note that the rates increased steadily over the five years before and after the passing of the Public Health Dental Hygiene Act.

[17] 2011 Annual Oral Health Legislative Report Submitted to Governor Martin O'Malley

6. What policies related to the Act do public health facilities have in place?

Four public health site administrators indicated they have written polices related to the Act or to general supervision. One administrator said that all hygienists are required to read and sign the policy upon hiring. One additional administrator said they do not have official written policies, but that everyone knows and understands hygienists are still able to see patients even if the dentist is not on-site.

Two administrators provided copies of their general supervision policies. One clinic's policy was written in 2007 after their clinic applied for the Waiver of On-Site Dental Hygiene Supervision. Interestingly, the policy was revised in 2010 -- after the Act passed -- and it still includes rules that applied before its passing. The policy states that "This waiver expires on 2/17/2015. . . Renewal will require the submission of the following documents within 60 days in advance to the Board of Examiners. . ." The administrator indicated that the wording comes directly from the Code of Maryland Regulations (COMAR). The second policy that was shared says, "As a Federally Qualified Health Center under Maryland law providing medical and dental care to poor, elderly, or handicapped, a licensed hygienist may provide dental care under general supervision of the licensed dentist employed by [site name] that meets the following criteria. . ." Their patients are also required to sign a form that says, "I understand that the dental hygienist will be providing services prescribed by a dentist who will not be on the premises during the appointment, and I consent to receiving the dental hygiene services. I understand that the treatment I receive from the dental hygienist is limited in scope. It does not take the place of a regular dental exam or treatment from a licensed dentist, and I must return to the dental practice for an exam." All signed documents are scanned into patients' electronic dental records.

7. To what extent, if any, are dental hygienists used differently now than before the legislation? If there have been changes, how has this impacted the work dentists perform?

LHDs and FQHCs that changed the way they do their work as a result of the Act now use dental hygienists differently than they did in the past. The most common change described by site administrators was that their hygienists now oversee school programs (screenings, sealants, and fluoride varnish) independently. Prior to the Act, dentists were required to go to the schools, conduct initial screenings, and identify which teeth needed sealants. Eliminating this requirement now allows the dentists to spend more time in the clinic. Several administrators indicated that more children are now seen in the schools because students who were absent from school on the day of the dentist's site visit lost the opportunity for a free dental screening. Now, however, the hygienists are on-site at the schools more frequently and can see children who missed that first screening. Other examples of ways in which hygienists are used differently were provided. One site administrator said "Our hygienists now do more administrative work and are also more holistically involved. They try and get more children to dental homes and access to other resources." Another said, "Our hygienist is more involved in outreach and education, but also still does important clinical work."

Dental hygienists and public health site administrators were asked which oral health-related programs their facilities offer to the public and which of them utilize the services of a public health dental hygienist. They also identified those that existed prior to 2008 and whether the law had any impact on

the programs. Of the 28 administrators interviewed, all but one said they have programs within the school systems to do fluoride treatments, dental screenings and exams, and/or sealants. The majority of the sites had at least one program in operation before the Act passed. All twelve administrators who indicated making changes to their sites because of the Act said that the Act has impacted their programs. The main impact cited revolved around the amount of outreach hygienists can now do in the community and in the schools. Several administrators and hygienists emphasized the enormous increase in the number of children they are able to assess and provide sealants and varnish to in the school system merely because a dentist does not need to examine the children first. The same applies to adults and conducting oral cancer screenings. Prior to the Act, public health clinics were required to have a dentist perform the screenings; now a hygienist is allowed to fill this role. One administrator commented, "We recognize now that our public health hygienist sees patients -- both kids and adults -- that no one else wants to. She spends time with the most suffering populations and does so much preventive work with them. Because of her, our dentists work exclusively in the clinic and have more time to do restorative work."

Because of these changes, 81.8% (18) of the dental hygienists interviewed said that they feel that their roles in the oral health field have more importance and worth, and that they feel more valued on the job. For example, one hygienist said, "I feel like the capabilities of a hygienist are being acknowledged whereas before it was not. The community service aspect and being able to go out in the community and help is empowering. The Act has allowed us to spotlight dental hygiene as a more visible career choice." Another hygienist said, "I absolutely feel more valued. I am more accessible and impactful. I am able to see more children now than I used to. This is in the clinic and outside in the community."

Overall, public health clinics that provide oral health services and operate under general supervision have observed some changes in the work that dentists perform. For example, because public health hygienists are able to screen children in the school system and in the clinics themselves, dentists have more time to perform restorative care. One dentist said, "Before the Act passed, I was never as far out booked as I am now. Right now I have a three month wait, and all of those appointments are for restorative work."

8. To what extent, if any, are dental hygienists working within the full scope of practice in public health facilities?

"They do everything and more. They do all of the work they would do in a private practice plus they participate in all our community initiatives. Really, they do God's work."- FQHC Administrator

Both dental hygienists and public health site administrators report that hygienists in public health facilities generally work within the full scope of practice permitted under the Act. When asked about the services they provide, most dental hygienists and administrators listed all activities allowed by the State of Maryland including: oral health education; dental screenings; and prevention services (dental sealants, fluoride varnish, tooth brushing with fluoride toothpaste, prophylaxis, and x-rays). Three hygienists indicated that the only service they do not provide are x-rays. Two attributed this to their lack

of training and not having the technology in the clinic; one said he/she wasn't sure why he/she was not permitted to take x-rays in the clinic.

Although dental hygienists are working within the full scope of practice in the facilities where they are employed, a large number do not practice under general supervision. As mentioned earlier, only five (26.3%) of the 19 dental hygienists interviewed are able to do their work without a dentist on-site and having pre-screened their patients.

9. Who is receiving referrals (FQHCs, LHDs, private dentists)? What is the process for determining to whom the referrals are made?

To understand how public health clinics received referrals and whether or not they provided referrals, dentists and administrators were asked how people generally find out about their clinics. They were also asked if they ever need to refer patients to other clinics or private dentists. Most interviewees reported that clients found out about their clinics by word of mouth. Additional methods cited included:

- Television commercials;
- Billboards;
- Information sent home with children at the beginning of the school year;
- Community outreach at health fairs; and
- Flyers left at the health department or stores frequented by likely clients.

Many public health clinics also receive referrals from other public health agencies, school administrators, and private dentists and doctors.

All of the public health administrators indicated there are times when they need to refer patients to someone else for services. Most of the time this is for specialty work that they are not equipped to perform on-site such as endodontics, orthodontics, and oral surgery. Also, some patients' problems are so severe that they require a hospital visit. A few LHD public administrators said that they are at times so overbooked that they need to refer people to a FQHC.

When asked to describe the process used for making referrals, administrators and dentists as a whole said that it was usually apparent what type of additional services a patient needed and that patients were referred to a list of clinics and specialists they maintained in the office based on those needs. Many concluded by saying that their dentist(s) consult with fellow colleagues when questions about to whom a patient should be referred arise.

10. Are there other populations that are being seen by dentists and dental hygienists more often than before the Act?

Interestingly, all public health administrators, dental hygienists, and dentists from clinics that **do not** operate under general supervision indicated that they see the same populations now as they did prior to 2008. In fact, one person questioned how a law could change the populations seen at a clinic: "I don't think that would be possible. The Act did not cause anyone to go set up a clinic and help different people." Some of the interviewees mentioned that they have seen an increase in the number of people

that come to their clinics, but that these patients do not necessarily come from different populations. They all attributed this increase to the poor economy and higher unemployment rates.

Public health administrators, dental hygienists, and dentists from clinics that currently **do** operate under general supervision provided more diverse answers and all identified new populations they now see more frequently. Those mentioned are:

- Children under the age of five;
- School-age children;
- People who for whatever reason have lost their insurance;
- Seniors;
- Migrant population;
- Nursing home residents; and
- State-insured.

Overall, interviewees unanimously agreed that the number of patients seen in clinics has increased over the past five years. Many noted that their clinics have waiting lists for new patients and that they at times need to refer patients requiring immediate attention to other public health clinics or hospitals.

11. How do stakeholders define public health dental facilities?

Public health site administrators and representatives from dental hygiene schools were asked to provide a definition for "public health dental facility." Most provided similar definitions; however the fact that there is not a standard accepted definition in Maryland was brought up several times. Not only did public health site administrators and representatives from dental hygiene schools comment on this, they also said that they are surprised there isn't a state-wide accepted definition.

The word cloud[18] below illustrates terms that were used by at least two individuals in their definitions.

[18] Word clouds give greater prominence to words that appear more frequently in text.

Figure 1: Word Cloud Using Terms Cited in Stakeholder Definitions of "Public Health Dental Facility."

Most people used the following terms in their definitions: *underserved, underinsured, uninsured*, and *low-income*. Some examples include:

- "A non-profit organization that provides care to those who are underinsured or uninsured."
- "It is a facility that promotes oral health and provides a dental safety net for those from low-income families."
- "It is a facility that meets the needs of the community and sees a wide range of people."
- "Provides basic health care to those that need it most (those who fall under the federal poverty guidelines). They try and facilitate resources and make connections. They are accessible to anyone who wants the help."

12. How are public health facilities funded?

FQHCs and LHDs are funded in different ways. As federal agencies, FQHCs have Health Resources and Services Administration (HRSA) funding and LHDs have state funding from the OOH. Additionally, all but one FQHC site administrator said that their centers receive additional funding aside from their HRSA dollars. Examples provided are:

- Billing private and state insurance;
- Ryan White via HRSA; and
- Grants (United Way, Gaming Foundation, Health Care Foundations, Delta Dental).

LHDs' funding streams are more diverse, both in quantity and type. All LHDs have state funding and most have additional non-profit grant funding. Some engage in private fundraising and also generate funding from patient fees.

The ways in which administrators, dental hygienists, and dentists are paid by their clinics vary widely. For example, one LHD administrator said that her salary is paid by the organization that employs her, but much of her staff are paid through grants, including two who are contractual. Other administrators said some of their staff are state employees. Still others indicated that everyone but themselves were contractual. Overall, there was no consistency among the ways in which LHD employees were paid.

Conclusions

This study indicates that a majority of public health dental facilities in Maryland did not change their general supervision procedures as a result of the Public Health Dental Hygiene Act. Of the 35 LHDs and FQHCs represented in this study (85.3% of the total), 16 (or slightly less than half) now operate under the law of general supervision. Of those 16, approximately five already had Waivers of Supervision prior to 2008. It is important for stakeholders to question why more facilities did not make changes after 2008. Interviewees shared some explanations and opinions, a major one being that not many people (including those in the public health dental field) are aware of the Act and what it actually means. Looking only at the sample for this study, 87.6% (57) of the 65 people interviewed had heard about the Act. However, several of them (most frequently dentists and dental hygienists) were not familiar with the specific details of the Act or its intentions. Some interviewees indicated that public health dental clinics do not operate under the Act due to the fact that their dental hygienists do not feel comfortable seeing patients without a dentist on-site. Others attributed their incompliance to lack of funding for a hygienist to do community outreach; dentists who don't support the Act; having volunteer dentists who are not willing to administer screenings and other procedures in the schools; and lack of interest or feeling like "what we are doing now works okay, so why change things?". That said, lack of knowledge about the Act appears to be the most prevalent reason why public health dental clinics have not changed the way they operate.

Although many public health facilities do not operate under general supervision, those that do unanimously expressed its positive outcomes:

- Increase in the number of children screened in schools;
- Increase in the number of children in schools who receive sealants and/or fluoride varnish;
- Increased sense of value felt by dental hygienists;
- Increased value placed on dental hygienists by dentists, administrators, and the general public;
- Increased restorative care services provided by dentists;
- Increased number of oral cancer screenings conducted for seniors;
- Decreased spending on services that a hygienist can now do that used to have to be done by dentists; and
- Increased number of patients (of all ages) seen.

The facilities that operate under general supervision only had positive things to say about it. In sum, the data demonstrates that access to care has increased in communities where sites have adopted the Public Health Dental Hygiene Act and that these sites are serving more children than they did prior to

2008. Awareness of this Act among the Maryland public health dental administrators led to over 40% of them implementing related programmatic changes that ultimately led to more children served by these programs gaining access to oral health care services.,

Recommendations

Based on findings from this study, we recommend that OOH and stakeholders of the Public Health Dental Hygiene Act take the following actions:

1. Increase publicity about the Act to the public health dental community, especially to dentists and hygienists.
   Approximately 20% of the dentists and dental hygienists interviewed had never heard of the Public Health Dental Hygiene Act, and most of them were not aware that practicing under general supervision was even an option in Maryland.

2. OOH and/or the Board of Dental Examiners should clarify differences between the Waiver of Supervision that existed prior to the Act and the current requirements needed to practice under general supervision.
   Several interviewees (primarily public health site administrators) mentioned the Waiver of Supervision. It was most frequently discussed in the context of waivers that were in place prior to 2008 and the fact that they did not understand how the Act was supposed to help them. These same interviewees also thought that they would lose their privileges if they did not renew their waivers before they expired. Even sites that renewed their waivers after 2008 following the same guidelines they had to when they originally applied were still treated as if the requirements still existed. They were not aware that they only needed to submit a letter stating their intentions to practice under general supervision, who their hygienists and dentists were, etc.

3. Develop a formal definition for “public health dental hygienist” and make it known in the public health dental community in Maryland.
   Although public health site administrators provided definitions of what they see as the role of a public health dental hygienist, many mentioned that they did not think it was an actual term that had widespread acceptance within the community. Definitions provided generally fell into two categories: 1) those who think that hygienists who work in a public health clinic are the same as those who work in private practice; and 2) those who think they perform the same duties as private practice hygienists, but also focus on education, outreach, and providing greater access to care. Establishing an accepted, universal definition would make those working in the dental community more knowledgeable of this important role. It would also benefit dental hygiene schools' promotion of alternative career choices for hygienists.

4. Develop a formal definition and description of what constitutes a "public health dental facility" in Maryland.
   Although many interviewees used similar terms when describing what they think a public health dental facility is, it brought up the issue that there isn't a formal definition known and accepted in the public health community in Maryland. OOH and its partners should convene a meeting of relevant stakeholders in the state to identify and establish an accepted, universal definition of what constitutes a "public health dental facility" in Maryland.

5. Develop a "how to" guide for public health dental clinics that discusses ways in which they can benefit from the law and how they can change their practices to adapt to it. This guide might include case studies highlighting the successes of dental clinics that made changes to their general supervision practices after the Act passed.
   As this study shows, many public health dental clinics in Maryland do not operate under general supervision. Their reasons for not doing so vary. However, the qualitative data show that some simply do not know how to make the changes needed to operate within this framework. Some have dental hygienists that meet the criteria, but who are uncomfortable working without a dentist on-site. This may very well come down to education and the need to see first-hand how other clinics have successfully made changes to their operation procedures. A guide such as this might motivate more public health dental clinics to operate under general supervision, increasing access to dental care for an even greater population.

Appendix A- Most Recent Version of the Public Health Dental Hygiene Act

Title 10
DEPARTMENT OF HEALTH AND MENTAL HYGIENE

Subtitle 44 BOARD OF DENTAL EXAMINERS

Chapter 21 Practice of Dental Hygiene Under General Supervision in a Facility or Long-Term Care Facility

Authority: Health Occupations Article, §4-308, Annotated Code of Maryland;
Ch. 221, Acts of 2003; Ch. 164 and 165, Acts of 2007; Ch. 733, Acts of 2010

.01 Scope.

This chapter governs the practice of dental hygiene in a facility and in a long-term care facility. The practice of dental hygiene in long-term care facilities is specifically governed in Regulation .10 of this chapter. The practice of dental hygiene in a private dental office is governed by COMAR 10.44.27.

.02 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) “Assisted living program” has the meaning stated in Health Occupations Article, §19-1801, Annotated Code of Maryland.

(2) "Contractual employee" means a dental hygienist who has an annual contract to practice dental hygiene an average of at least 8 hours per week in a facility identified in Regulation .09A of this chapter.

(3) "Facility" as used in Regulation .09 of this chapter includes a program operated within a facility that is specified under Regulation .09 of this chapter, but excludes “long-term care facilities” which are regulated in Regulation .10 of this chapter.

(4) "Federally qualified health center" has the meaning stated in 42 U.S.C. §254b(a).

(5) "Federally qualified health center look-alike" has the meaning stated in 42 U.S.C. §1396d(l)(2)(B).

(6) "General supervision" means the supervision of a dental hygienist by a dentist where the dentist may or may not be present when the dental hygienist performs the dental hygiene procedures.

(7) ”Long-term care facility” means:

(a) A nursing home; or

(b) An assisted living program.

(8) “Nursing home” has the meaning stated in Health Occupations Article, §19-1401, Annotated Code of Maryland.

(9) "On-site supervision" means the supervision of a dental hygienist by a dentist who is physically present on the premises and may or may not be present in the operatory when the dental hygiene services are provided.

(10) "Waiver of on-site supervision" means that a facility has been approved by the Board to enable a licensed dental hygienist to provide dental hygiene services under general supervision.

.03 Supervision Requirements in a Facility.

Unless a facility is operating pursuant to this chapter, a general license to practice dental hygiene in a facility authorizes the licensee to practice dental hygiene only under the on-site supervision of a licensed dentist.

.04 Qualification for Practice Under General Supervision by Report to the Board.

A. With the exception of those facilities identified in Regulations .09A and .10 of this chapter, a facility is qualified to permit a dental hygienist to practice under general supervision if the facility has filed a report with the Board and the facility is owned or operated by:

(1) The federal government;

(2) The State government;

(3) A county or local government; or

(4) A public health department of the federal, State, or local government.

B. A facility shall include in the report to the Board:

(1) The name of the federal, State, or local government agency which owns or operates the facility;

(2) The location of the facility and all other sites where dental hygiene services will be provided;

(3) The name of the supervising dentist affiliated with the facility who will be responsible for carrying out the requirements necessary for the facility to operate under general supervision; and

(4) The names of the dental hygienists who will provide dental hygiene services under general supervision.

C. A facility which is qualified for practice under general supervision by report to the Board may do so on receipt of the report by the Board.

.05 Waiver of On-Site Supervision by Application to the Board.

A. With the exception of those facilities identified in Regulations .09A and .10 of this chapter, the Board may grant on a case-by-case basis a waiver of on-site supervision qualifying a facility to permit the practice of dental hygiene under general supervision, after the facility has made application to the Board, if the facility is a health facility that is licensed by the Department of Health and Mental Hygiene and:

(1) Provides medical care to the poor, elderly, or handicapped;

(2) Is owned or operated by a charitable institution;

(3) Is a federal-qualified or State-qualified community health care program; or

(4) Is a setting otherwise authorized by the Board to provide dental hygiene services.

B. The facility shall include in the application for a waiver of on-site supervision the following:

(1) The name of the facility;

(2) The location of the facility;

(3) The name and signature of each supervising dentist responsible for carrying out the requirements necessary for the facility to operate under a waiver of on-site supervision affirming that the dentist understands and accepts those responsibilities;

(4) The name and signature of each dental hygienist who will provide dental hygiene services at the facility under a waiver of on-site supervision affirming that the dental hygienist understands and accepts the terms of the waiver of on-site supervision;

(5) The supervisory responsibilities of the supervising dentist or dentists;

(6) A description of the program and how the program will operate and be administered;

(7) A description of a medical emergency plan of action; and

(8) A description of the facility that demonstrates that it has adequate equipment for the delivery of dental hygiene services, unless the dental hygiene services that are provided are limited to fluoride rinse programs.

C. The Board shall grant or deny an application for waiver of on-site supervision:

(1) Within 60 calendar days after receipt of the application by the Board; or

(2) Within 90 calendar days after receipt of the application by the Board, if the Board notifies the applicant that extraordinary circumstances exist.

D. If the Board fails to grant or deny an application within the appropriate time, the Board shall consider the application granted.

E. The Board may, on written request or its own motion, conduct a public informational hearing on the granting or denial of a waiver of on-site supervision.

.06 Term and Renewal of Qualification of a Facility To Operate Under General Supervision.

A. A report or waiver issued by the Board under this chapter is effective for a 5-year term.

B. At least 90 days before the expiration of the 5-year term, the Board shall notify the facility of the expiration of the report or waiver and send to the facility an application for renewal of the waiver.

C. A facility seeking to renew a report to qualify for practice under general supervision shall file a new report with the Board not later than 60 days before the expiration of the existing 5-year term.

D. A facility seeking to renew a waiver of on-site supervision shall file the application with the Board not later than 60 days before the expiration of the existing waiver.

.07 Requirements for Dentists and Dental Hygienists to Operate Under General Supervision in a Facility.

A. Each supervising dentist responsible for carrying out the requirements necessary for the facility to operate under general supervision shall:

(1) Hold an active license to practice dentistry in this State;

(2) Hold a current certificate of Health Care Provider Level C Proficiency, or its equivalent, in Cardiopulmonary Resuscitation; and

(3) Have at least 2 years experience in providing direct patient care in the active clinical practice of dentistry.

B. Each dental hygienist providing dental hygiene services under general supervision shall:

(1) Hold an active license to practice dental hygiene in this State;

(2) Hold a current certificate of Health Care Provider Level C Proficiency, or its equivalent, in Cardiopulmonary Resuscitation; and

(3) Have at least 2 years experience in direct patient care in the active clinical practice of dental hygiene.

C. Within 30 days after there has been a change in either the supervising dentist or the dental hygienist, a facility shall notify the Board in writing of the following:

(1) The name of the new supervising dentist or the new dental hygienist;

(2) The date of the change in personnel; and

(3) A statement affirming that all personnel meet the criteria established in this regulation for practice under general supervision.

.08 Guidelines for Operating Under General Supervision in a Facility.

A. A facility shall provide adequate facilities and equipment for the delivery of dental hygiene services;

B. Each time a patient receives dental hygiene services under general supervision, the dental hygienist shall determine, before initiation of treatment, that there has been no change in the patient's medical history;

C. If there is a change in the medical history of the patient, the dental hygienist shall consult with the supervising dentist, the patient's own dentist, the facility's dental consultant, or the patient's treating physician before providing dental hygiene services; and

D. All recall patients seen by a dental hygienist working under general supervision shall be scheduled for an oral examination with a dentist every 6 months or as otherwise recommended by the supervising dentist.

.09 Exceptions.

A. This regulation applies to the following facilities:

(1) A dental facility owned and operated by:

(a) The federal government;

(b) The State government; or

(c) A county or local government;

(2) A public health department of:

(a) The State; or

(b) A county or local government;

(3) A public school of:

(a) The State; or

(b) A county or local government;

(4) A facility in which a program licensed by the Department of Health and Mental Hygiene is operating;

(5) A facility owned and operated by the Department of Juvenile Services;

(6) A facility owned and operated by the State, county, or local government that provides medical care to the poor, elderly, or handicapped;

(7) A facility in which a federally qualified health center or a federally qualified health center look-alike is located; or

(8) A facility in which a State-licensed Head Start Program or Early Head Start Program operates.

B. A general license to practice dental hygiene authorizes the licensee to practice dental hygiene under general supervision in a facility identified in §A of this regulation and apply:

(1) Sealants;

(2) Fluoride agents, such as professional topical fluoride agents;

(3) Mouth wash; or

(4) Varnish.

C. The Board may not require a facility identified in §A of this regulation to obtain a waiver in order to practice in accordance with §B of this regulation.

D. Before a facility may allow a dental hygienist to practice dental hygiene in a facility identified in §A of this regulation, the facility shall report to the Board:

(1) That the facility is operating under general supervision;

(2) The identity of each hygienist employed by the facility; and

(3) The identity of each supervising dentist.

E. A facility that authorizes a dental hygienist to practice dental hygiene in a facility identified in §A of this regulation shall insure that the supervising dentist for the facility:

(1) Holds an active general license to practice dentistry in the State;

(2) Holds a current certificate evidencing Health Care Provider Level C Proficiency, or its equivalent, in Cardiopulmonary Resuscitation; and

(3) Has at least 2 years of active clinical practice in direct patient care.

F. A facility that authorizes a dental hygienist to practice dental hygiene in a facility identified in §A of this regulation shall insure that the dental hygienist:

(1) Holds an active general license to practice dental hygiene in the State;

(2) Holds a current certificate evidencing Health Care Provider Level C Proficiency, or its equivalent, in Cardiopulmonary Resuscitation;

(3) Has at least 2 years of active clinical practice in direct patient care; and

(4) Is a permanent or contractual employee of:

(a) The federal government;

(b) A state government;

(c) A county or local government; or

(d) A federally qualified health center.

G. A facility that authorizes a dental hygienist to practice dental hygiene in a facility identified in §A of this regulation shall insure that:

(1) The facility has a medical emergency plan;

(2) Adequate equipment, including portable equipment where appropriate and appropriate armamentarium, is available for the appropriate delivery of dental hygiene services; and

(3) Adequate safeguards are present to protect the patient's health and safety.

.10 Long-Term Care Facilities.

A. A dental hygienist may practice dental hygiene under the general supervision of a dentist in a long-term care facility in accordance with this regulation.

B. Initial Appointment. A dental hygienist practicing under the general supervision of a licensed dentist in a long-term care facility and performing an authorized dental hygiene service for a patient's initial appointment shall:

(1) Have a written agreement between the supervising dentist and the dental hygienist that clearly sets forth the terms and conditions under which the dental hygienist may practice, including a statement that the dental hygienist may provide dental hygiene services without the dentist on the premises; and

(2) Ensure that the supervising dentist is available for consultation with the dental hygienist:

(a) In person;

(b) By telephone; or

(c) Electronically.

C. A dental hygienist working under general supervision in a long-term care facility shall:

(1) Consult with the supervising dentist or a treating physician before proceeding with initial treatment if there has been a change in a recall patient's medical history;

(2) Assess the appropriate recall interval based on the individual needs of the patient or as otherwise recommended by the supervising dentist;

(3) Limit dental hygiene tasks and procedures to:

(a) Toothbrush prophylaxis;

(b) Application of fluoride;

(c) Dental hygiene instruction; and

(d) Other duties as may be delegated, verbally or in writing, by the supervising dentist.

D. A dental hygienist shall:

(1) Assess the patient's apparent need for further evaluation by a dentist in order to diagnose the presence of dental disease; and

(2) Submit the findings of the initial assessment to the supervising dentist for a determination of future treatment.

E. A dental hygienist may perform subsequent authorized dental hygiene services without the supervising dentist on the premises only if:

(1) The supervising dentist examines the patient and authorizes in the patient's record a prescription of specific treatment to be provided by the dental hygienist; and

(2) An authorized treatment is provided by the dental hygienist as soon as possible, but no later than 7 months from the date the patient was examined by the supervising dentist.

F. Upon expiration of a prescribed treatment, the supervising dentist is responsible for determining future protocols for the treatment of the patient.

G. Qualifications of a Dental Hygienist. Before a dental hygienist is authorized to practice dental hygiene under general supervision in a long-term care facility, the dental hygienist shall:

(1) Hold an active license to practice dental hygiene in the State;

(2) Hold a current certificate evidencing Health Care Provider Level C Proficiency, or its equivalent, in cardiopulmonary resuscitation;

(3) Have at least 2 years of active clinical practice in direct patient care; and

(4) Ensure that the long-term care facility where the dental hygienist will practice under general supervision has:

(a) A written medical emergency plan in place;

(b) Adequate equipment, including portable equipment and appropriate armamentarium, available for the appropriate delivery of dental hygiene services; and

(c) Adequate safeguards to protect the patient's health and safety.

H. Qualifications of a Dentist. Before a dental hygienist is authorized to practice dental hygiene under general supervision in a long-term care facility, the supervising dentist shall:

(1) Hold an active general license to practice dentistry in the State;

(2) Hold a current certificate evidencing Health Care Provider Level C Proficiency, or its equivalent, in cardiopulmonary resuscitation; and

(3) Have at least 2 years of active clinical practice in direct patient care.

I. This regulation may not be construed to:

(1) Authorize a dental hygienist to practice dental hygiene independent of a supervising dentist;

(2) Prohibit a dentist from being available for personal consultation or on the premises where a dental hygienist is practicing; or

(3) Prohibit a dental hygienist, without the supervision of a dentist, from performing a preliminary dental examination with a subsequent referral to a dentist.

J. Long-term care facilities are not required to obtain a waiver from the Board pursuant to Health Occupations Article, §4-308(e), Annotated Code of Maryland.

.11 Penalties.

A. A violation of this chapter by a dentist or dental hygienist shall constitute unprofessional conduct.

B. A violation of this chapter may result in revocation of the facility's right to operate under a waiver of on-site supervision.

Administrative History

Effective date:

Regulations .01—.09 adopted as an emergency provision effective April 11, 1994 (21:9 Md. R. 747); emergency status expired October 7, 1994

Regulations .01—.09 adopted effective October 10, 1994 (21:20 Md. R. 1733)

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Chapter, Waiver of Supervision Requirements for Dental Hygienists, repealed and new chapter, Practice of Dental Hygiene Under General Supervision, adopted effective October 4, 1999 (26:20 Md. R. 1546)

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Chapter revised effective December 11, 2003 (30:24 Md. R. 1743)

Regulation .02B amended effective January 26, 2009 (36:2 Md. R. 101)

Regulation .04A amended effective January 26, 2009 (36:2 Md. R. 101)

Regulation .05A amended effective January 26, 2009 (36:2 Md. R. 101)

Regulation .05B amended effective March 14, 2005 (32:5 Md. R. 580)

Regulation .07 amended effective January 26, 2009 (36:2 Md. R. 101)

Regulation .08 amended effective October 22, 2007 (34:21 Md. R. 1916); January 26, 2009 (36:2 Md. R. 101)

Regulation .09 recodified to be Regulation .10 and new Regulation .09 adopted effective October 22, 2007 (34:21 Md. R. 1916)

Regulation .09 repealed and new Regulation .09 adopted effective January 26, 2009 (36:2 Md. R. 101)

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Chapter revised effective December 12, 2011 (38:25 Md. R. 1581)

Appendix B- Logic Model

Maryland Public Health Dental Hygiene Act **Logic Model (2008-2012)**			
Goal: To provide all Maryland children with a dental home by increasing oral health prevention and education services to low-income populations and to reduce healthcare disparities for the underserved.			
Inputs	**Strategies**	**Outputs**	**Outcomes**
Office of Oral Health (OOH) Maryland Oral Health Association Maryland State Dental Association and component societies Maryland Dental Hygienists' Association Maryland Dental Society Maryland State Department of Education County School Superintendents Maryland Primary Care Associations Public Health Agencies including:	Agencies hire public health dental hygienists Without a dentist on-site, hygienists who work in public health settings will provide all services within their scope of practice including: a. Oral health education b. Dental screenings c. Prophylaxis d. Prevention services including: i. Dental Sealants ii. Fluoride varnish iii. Toothbrushing w/fluoride toothpaste iv. Other	# of public health agencies (as defined by law) who hire public health dental hygienists # of schools who utilize public health dental hygienists # of WIC centers who utilize public health dental hygienists # of Early and Head Start centers who utilize public health dental hygienists # of Judy Centers who utilize public health dental hygienists # of long-term care institutions	**Youth/ Adults** • **Short-term:** Increased number of oral health education, prevention, and treatment programs for MD youth and adults • **Intermediate:** Increased # of patients that hygienists recommend/refer to a dental home • **Intermediate:** Improved and increased oral health awareness for MD youth • **Intermediate:** Increased # of children and adults in MD with access to oral health services • **Intermediate:** Increased # of children and adults in MD with access to education and prevention oral health services • **Proximal Long-term:** Increased # of MD children that have a dental home • **Distal Long-term:** Reduction in dental caries experience in children • **Distal Long-term:** Reduction in untreated dental decay in children and adults **Dentist** • **Short-term/Intermediate:** Increased ability of dentists to concentrate on performing treatment (restorative) care • **Intermediate:** Increased patient load • **Long-term:** Increase in the # of dentists in the dental health public workforce **Dental Hygienist** • **Short-term:** Increased feeling of value among hygienists in public health settings

• Dental facilities owned and operated by federal, state, or local governments • Public health departments of schools • Health facilities licensed by the public health department Maryland Women, Infants, and Children (WIC) program Maryland Judy Centers Maryland Head Start State Collaboration Office State-licensed Head Start or Early Head Start programs Maryland Dental Action Coalition Long-term care institutions Adult day care centers	e. Radiographs f. Other	who utilize public health dental hygienists # of Adult Daycare centers who utilize public health dental hygienists # of public health dental hygienists hired after the act was passed # of hygienists who perform a – f (see strategies) # of patients who received **a-f** from a public health dental hygienist # of **a-f** services done by dental hygienists under new law	• **Long-term:** Increase in the # of hygienists working in public health facilities **<u>Agency/Community-Wide</u>** • **Short-term:** Increased awareness of the presence and utilization of public health dental hygienists • **Short-term:** Increased number of public health settings (e.g., schools, Early/Head Start programs, WIC centers, Judy Centers, long-term care institutions and adult day care centers) who utilize public health dental hygienists • **Short-term:** Increased number of public health facilities utilizing public health dental hygienists • **Long-term:** Continued increased awareness of HB1280 by the community. • **Long-term:** Continued increased number of schools, Early/Head Start programs, WIC centers, Judy Centers, long-term care institutions and adult day care centers who utilize public health dental hygienists

Appendix C: Evaluation Plan

Maryland Public Health Dental Hygiene Act

Final Evaluation Plan

Introduction

The Maryland Office of Oral Heath (OOH) was awarded funding from the American Public Health Association (APHA) to evaluate the impact of the Public Health Dental Hygiene Act, enacted in 2008, in the wake of a young African-American Maryland child dying from an untreated dental infection. This tragedy incited an emotional reaction by administrators, legislators, and the public who vowed to never allow such a preventable tragedy to occur again. A health department committee (Dental Action Committee) was immediately convened which released a series of recommendations aimed at improving the oral health care delivery system in Maryland with the goal that every Maryland child would have a dental home. With the implementation of these recommendations came the passage of the Public Health Dental Hygiene Act in 2008 which allows for public health dental hygienists to provide any procedure allowed under the scope of practice for dental hygienists established by the Maryland State Board of Dental Examiners (see COMAR 10.44.04) in public health settings without a dentist on-site and having had to evaluate the patient beforehand.

This evaluation will look at the impact that the law has had in Maryland in achieving its original goals (to increase oral health prevention and education services to low-income populations and to increase access to care for underserved populations in Maryland). This document explains the approach of the evaluation and includes a detailed methodology.

Methodology

OOH and its stakeholders seek answers to the following questions that will guide the evaluation:

1. To what extent, if any, has there been a change in the number of dental hygienists working in public health facilities[19] (one year prior to the bill and three years after the bill)?
2. To what extent, if any, has there been a change in the number of dentists working in public health facilities (one year prior to the bill and three years after the bill)?
3. How many (number and proportion) children are receiving preventive services now vs. before the act (one year prior to the bill and three years after the bill)?
4. Were there any enablers facilitating the implementation of the act? Were there any barriers blocking the implementation of the act?
    a. If so, what?
    b. What are different strategies agencies have used to overcome barriers?
5. To what extent, if any, has there been a change in the number of patients seen by dentists in public health facilities, including the number of youth seen, the number of youth that had dental visits, number of exams (broken down by dental treatment) as a result of not having to accompany hygienists to site visits?
6. What policies do public health facilities have in place related to the act?

[19] Includes a dental facility owned and operated by federal, state, or local government, a health facility licensed by the Department of Health and Mental Hygiene, a facility providing medical care to the poor, elderly, or handicapped that is owned and operated by the state or a local government, or a bona fide charitable organization; or any other setting authorized under regulations adopted by the Board.

7. To what extent, if any, are dental hygienists used differently now than before the legislation?
8. To what extent, if any, are dental hygienists working within their full scope of practice in public health facilities?
9. Who is receiving referrals (FQHCs, LHDs, private dentists)? What is the process for determining to whom the referrals are made?
10. Are there other populations that are being seen by dentists and dental hygienists more often than before the act (adults, low-income/underserved, etc.)?
11. How do stakeholders of the act define public health dental facilities?
12. How are services being paid for at public health facilities?

To provide answers to these questions, a process and impact evaluation will be conducted. The evaluation will use a mixed methods strategy to collect qualitative and quantitative data that will help answer the questions listed above. The primary data collection methods that will be used are:

- Analysis of existing public health data (Eastern Shore Case Management database, WIC, Head Start Program Information Reports (PIR), OOH Program Reports, and Medicaid);

- Site visits comprised of in-person or telephone interviews with public health dental hygienists, dentists, and agency administrators who are employed by public health facilities (i.e., local health departments (LHDs), federally qualified health centers (FQHCs), others);[20]

- Telephone and/or in-person interviews with representatives from dental organizations including: the Maryland Dental Action Coalition (MDAC), Maryland Dental Hygienists Association (MDHA), Community Health Integrated Partnerships (CHIP), Children's Regional Oral Health Consortium (CROC), and the Maryland Oral Health Association (MOHA).

Implementation Evaluation

Implementation evaluation is important for this project to help understand how, and if, public health agencies changed their practices and polices once the act was passed. Also, it is imperative to understand how various outputs (the direct results of activities that occurred because of the act passing) changed from one year prior to the act compared to three years afterwards (2011). Specifically, the evaluation will measure the outputs shown in the left column of the chart below using the data collection methods listed in the column on the right:

[20] For people who are unavailable for in-person or telephone interviews, an electronic survey in Survey Monkey will be sent to them.

Outputs	Data Collection Methods
# of public health facilities (as defined by law) who hire public health dental hygienists	• Interviews with public health facility administrators • StateStat
# of schools who utilize public health dental hygienists	• Interviews with Sue Camardese, Chase Brexton (FQHC), Howard County
# of WIC centers who utilize public health dental hygienists	• WIC data (through Colleen and Jackie at the State) • Virtual Data Unit
# of Head Start centers who utilize public health dental hygienists	• Interviews with public health facility administrators (LHDs, FQHCs), Head Start Centers
# of Judy Centers who utilize public health dental hygienists	• Interviews with public health facility administrators • Interview with Linda Zang
# of public health dental hygienists hired after the act was passed	• Interviews with public health facility administrators (LHDs, FQHCs), (Daphene/Teresa B.)
# of public health dental hygienists who perform all services within their scope of dental hygiene practice under this bill	• Interviews with Public Health Dental Hygienists
# of patients who received from a public health dental hygienist all services within their scope of dental hygiene practice	• Interviews with public health facility administrators • Interviews with public health agency administrators • Existing Public Health Agency data (e.g., billing records) • GAMS
# of patients who received the following services from a public health dental hygienist: oral health education; dental screenings; prevention services (dental sealants, fluoride varnish, toothbrushing w/fluoride toothpaste); and other services.	• Interviews with public health agency administrators

Outcomes Evaluation

The outcomes evaluation plan that follows shows the expected outcomes that the passage of the Public Health Dental Hygiene Act has had on five primary stakeholders groups: youth/adults, dentists, hygienists, public health agencies, and communities where public health agencies are located and serve. In the middle column are corresponding indicators which, when measured, will demonstrate whether the outcomes occurred. Finally, the last column lists the different data collection methods that will be used to measure the indicators and outcomes.

Maryland Public Health Dental Hygiene Act Outcomes Evaluation Plan		
Outcomes	**Indicators**	**Data Collection Tool(s)**
Youth/ Adults • **Short-term:** Increased number of oral health education, prevention, and treatment programs for MD youth and adults • **Intermediate:** Increased # of patients that hygienists recommend/refer to a dental home • **Intermediate:** Improved and increased oral health awareness for MD youth • **Intermediate:** Increased # of children and adults in MD with access to oral health services • **Intermediate:** Increased # of children and adults in MD with access to education and prevention oral health services • **Proximal Long-term:** Increased # of MD children that have a dental home • **Distal Long-term:** Reduction in dental caries experience in children • **Distal Long-term:** Reduction in untreated dental decay in children and adults	• #/% of oral health programs for MD youth and adults compared to before the law passed • #/% of children and adults receiving education, preventive, and treatment services for oral health (now and before the act if possible) • #/% additional new programs as of 2008 that utilize public health dental hygienists • #/% of MD (or Medicaid population if MD data not available) children that have dental homes now compared to before the act was passed	• Interviews with public health facility administrators • Interviews with dental hygienists • Billing records/administrative data from public health programs • OOH data (and Medicaid/DentaQuest) • Schoolchildren Survey 2005-2006 and 2011-2012 (available Fall 2012)

Dentist • **Short-term/Intermediate:** Increased ability of dentists to concentrate on performing treatment (restorative) care • **Intermediate:** Increased patient load • **Long-term:** Increase in the # of dentists in the dental health public workforce	• #/% of public health dentists that indicate they are able to concentrate more on performing restorative care now than they did before the act passed • #/% of patients that dentists see in public health settings for restorative care now compared to before the act passed • #/% of public health dentists that indicate they have a larger patient load now than they did before the act passed • # of patients seen per year in public health settings now compared to before the act • #/% of dentists in the public health workforce now compared to before the act passed	• Interviews with dentists working for public health facilities • Public agency data • OOH Data
Dental Hygienist • **Short-term:** Increased feeling of value among hygienists in public health settings • **Long-term**: Increase in the # of hygienists working in public health facilities	• #/% of public health dental hygienists that indicate they feel more valued now than before the act passed in their workplace • #/% of public health dental hygienists in the public health workforce now compared to before the act passed • Public health dental hygienists believe that since the act passed, they have been more able to recommend patients to a dental home	• Interviews with dental hygienists • Public agency data • OOH Data, Medicaid/DentaQuest

Agency/Community-Wide • **Short-term:** Increased awareness of the presence and utilization of public health dental hygienists • **Short-term:** Increased number of public health settings (e.g., schools, Early/Head Start programs, WIC centers, Judy Centers, long-term care institutions and adult day care centers) who utilize public health dental hygienists • **Short-term:** Increased number of public health facilities utilizing public health dental hygienists • **Long-term:** Continued increased awareness of HB1280 by the community **Long-term:** Continued increased number of schools, Early/Head Start programs, WIC centers, Judy Centers, long-term care institutions and adult day care centers who utilize public health dental hygienists	• #/% of public health agency administrators, dental hygienists, and dentists that indicate increase awareness of public health dental hygienists [2008 to present] • #/% of public health facilities utilizing public health dental hygienists since the act was passed • #/% of public health agency administrators, dental hygienists, and dentists who report an increase in utilization of public health dental hygienists • #/% schools, Early/Head Start programs, WIC Centers, Judy Centers, long-term care institutions and adult day care centers who utilize public health dental hygienists prior to the passage of the act and after • #/% of public health agency administrators that indicate their agencies run more efficiently due to the changes made after the act passed • #/% of services provided to children and adults by hygienists now compared to before the act passed in: oral health education, dental screenings, prophylaxis, prevention services including: dental sealants, fluoride varnish, toothbrushing w/fluoride toothpaste, and radiographs, and anything else identified	• Interviews with public health facility administrators • Billing records/administrative data from public health programs including schools, Early/Head Start programs, WIC centers, Judy Centers, long-term care institutions and adult day care centers that utilize public health dental hygienists • OOH data

Limitations

While we hope to yield high quality data that will help OOH and its stakeholders understand more about the impact of the Public Health Dental Hygiene Act, there are some inherent limitations in this study. One limitation is that the overall number of public health facilities in Maryland is relatively small so if an adequate response rate from hygienists, dentists, and public health administrators is not obtained, the results may not be statistically relevant. We believe, however, that because OOH has communicated the importance of the study to the public health community and public health professionals have a vested interest in the findings, participants will be prepared to receive their survey and complete it as well as take part in interviews and/or site visits. Further, while a low response rate among dentists, hygienists, and/or public health administrators would produce findings that are not generalizable to the full population in Maryland, it may still contain useful feedback for stakeholders.

Two other limitations that occur with surveys and interviews are *purposeful misrepresentation* and *social desirability.* In these cases, it is possible that respondents intentionally distort their responses or answer them in ways they feel are more desirable. To address these threats, our surveys and interview protocols will include an introduction explaining the confidentiality of the information they share along with why it is important for them to be honest with their responses.

Next Steps

The next steps once the evaluation plan is finalized are to begin creating the data collection instruments for the study. Once these are completed, approved, and tested, data collection will begin. Afterwards, the data will be analyzed and a final report developed. The entire study and final report will be completed by January 2013. A timeline for the remainder of the project is below.

Tasks	**Timeframe**
Finalize evaluation plan	Mid to late August 2012
Develop data collection instruments	By August 31 2012
Data collection	September-November 2012
Data analysis and reporting	December 2012/January 2013

Appendix D: Data Collection Instruments

Public Health Facility Administrator Interview Guide

Thank you taking the time to meet with me today. As you know, I am Deborah Levy an independent consultant who was hired by the Maryland Office of Oral Health to conduct an evaluation of the Public Health Dental Hygiene Act. Since the bill passed in 2008, there have not been any studies done on its impact. This is the purpose of my evaluation, as well as looking at the implementation of the law in public health facilities across the state.

The evaluation includes conducting interviews with different stakeholder groups such as public health facility administrators like you, public health dentists, dental hygienists, and representatives from dental organizations in Maryland. All of the information I collect will be reported in the aggregate and no names will be attached to individual comments.

If it is okay with you, I would like to record our conversation. Please know that it is only for note taking purposes. If you do not feel comfortable with it, I will not record this conversation. Is it OK to record the conversation? Do you have any other questions before I begin?

For the interviewer to complete:

- **Interviewee name and job title: _____**
- **Date/time of interview:_____**
- **Type of public health facility (FQHC, LHD, etc.):_____**

1. How do you define a "public health dental facility/site" in Maryland?
    a. How about the definition of a "public health dental hygienist?"

2. Are you aware of, or what is your understanding of the Public Health Dental Hygiene Act?
    a. If yes, provide explanation if interviewee does not know much about it. Also for in-person interviews, have a one page document in hand which explains it.
    b. Were there any barriers you observed that were encountered in making the change(s) you described?

3. To what extent, if any, have you noticed a change in the efficiency of how your facility/site is run since the act?

4. Do you have any policies and/or procedures within your facility/site that are related to the act? Are they formally in writing? *[If yes]* Can I please have a copy?

5. Please give me an overview of the extent to which your facility/site currently uses dental hygienists.

   a. Looking back to 2007 (one year before the law passed), how, if at all, did you use dental hygienists?
   b. How many dental hygienists have you hired since the law passed in 2008? Can you break that down by year? How many are currently employed?
   c. How many have been retained?
   d. How many dentists have you hired since the law passed in 2008? Can you break that down by year?

6. In what capacity does your facility/site use dental hygienists? For example, what is their scope of practice in the facility?
   a. Can you please describe the demographics of the patient population your facility sees, and the types of services they receive from dental hygienists?
   b. How about by dentists?

7. Please explain how people find out about your facility for oral health care?
   a. Do you receive many referrals? From who/where do they come from?
   b. Does your facility refer patients to other public health facilities that provide oral health care?
   c. How about to private dentists?

8. Do you have records for how many patients received services from a dental hygienist (those covered within their scope of practice)? *May include: oral health education; dental screenings; (dental sealants, fluoride varnish, toothbrushing w/fluoride toothpaste, prophylaxis, x-rays); and etc.*

9. What oral health-related programs does your facility/site offer to the public? Please describe them and indicate whether or not each one includes the use of public health dental hygienist(s).
   a. Did these program(s) you described exist prior to the law passing in 2008?
   b. Has the passing of the law impacted this/these (program(s) in anyway?

10. Do you collect data on how many children and/or adults have received education through the program(s) we just talked about? If yes, can you please share those data?

11. Since the law passed in 2008, do you think there is greater awareness among your local community about the new use of dental hygienists?
   a. How about among the local public health community?

12. Are there other populations you have noticed that are being seen by dentists and dental hygienists more often than before the act?

13. Please describe how your facility/site is funded? (Probe how different employee's salaries are paid)

14. Do you have any additional comments or ideas to share with me regarding the Public Health Dental Hygiene Act?

Interview Guide for Dentists

Thank you taking the time to meet with me today. As you know, I am Deborah Levy, an independent consultant who was hired by the Maryland Office of Oral Health to conduct an evaluation of the Public Health Dental Hygiene Act. Since the bill passed in 2008, there have not been any studies done on its impact. This is the purpose of my evaluation, as well as looking at the implementation of the law in public health facilities across the state.

The evaluation includes conducting interviews with different stakeholder groups such as dentists that practice in public health settings like you, public health dental hygienists, public health facility administrators, and representatives from dental organizations in Maryland. All of the information I collect will be reported in the aggregate and no names will be attached to individual comments.

If it is okay with you, I would like to record our conversation. Please know that it is only for note taking purposes. If you do not feel comfortable with it, I will not record this conversation. Is it OK to record the conversation? Do you have any other questions before I begin?

For the interviewer to complete:

- **Interviewee name and job title: _____**
- **Date/time of interview:_____**
- **Type of public health facility (FQHC, LHD, etc.):_____**

1. How long have you been practicing dentistry?
    a. How long have you been working at this facility/site?
    b. Do you practice anywhere else? (public or private)

2. How did you begin working in the dental public health field?

3. Are you aware of, or what is your understanding of the Public Health Dental Hygiene Act?
    a. If yes, provide explanation if interviewee does not know much about it. Also for in-person interviews, have a one page document in hand which explains it. Then proceed to question 4.

4. How and when did you find out the Public Health Dental Hygiene Act passed?
    a. Upon learning that the law passed, to what extent, if any, were changes to your practices in the facility/facilities or sites you work in made? Please describe these changes.
    b. Were there any barriers you observed that were encountered in making the change(s) you described?

5. To what extent do you think the value that the dental public health field places on dental hygienists has changed since the act passed in 2008? Please explain your answer.

6. Thinking about before the act passed (pre 2008) vs. immediately afterwards and now, to what extent has the scope of your work changed in the facility/facilities or sites you work in? (*Use only if interviewee is stuck or needs clarification- For example, do you concentrate more on performing restorative care now than you did before the act passed?)*
    a. To what extent do you provide any more restorative work, if any?

7. To what extent, if any, has the number of patients seen every day in the facility/facilities or sites you work in changed since the act passed?
    a. To what extent, if any, has the number of patients seen for restorative care in the facility/facilities you work in increased since the act passed?

8. Please explain how people find out about the facility/facilities or sites you work in for oral health care?
    a. Do you receive many referrals? From who/where do they come from?
    b. Do the facility/facilities or sites refer patients to other public health facilities that provide oral health care?
    c. How about from private dentists?

9. Since the law passed in 2008, to what extent, if any do you think there is greater awareness in your county about the new use of dental hygienists?
    a. How about among the local public health community?

10. Are there other populations you have noticed that are being seen by dentists and dental hygienists either more often or less often than before the act?

11. Do you have any additional comments or ideas to share with me regarding the Public Health Dental Hygiene Act?

Interview Guide for Dental Hygienists

Thank you taking the time to meet with me today. As you know, I am Deborah Levy, an independent consultant who was hired by the Maryland Office of Oral Health to conduct an evaluation of the Public Health Dental Hygiene Act. Since the bill passed in 2008, there have not been any studies done on its impact. This is the purpose of my evaluation, as well as looking at the implementation of the law in public health facilities across the state.

The evaluation includes conducting interviews with different stakeholder groups such as public health dental hygienists like you, public health dentists, public health facility administrators, and representatives from dental organizations in Maryland. All of the information I collect will be reported in the aggregate and no names will be attached to individual comments.

If it is okay with you, I would like to record our conversation. Please know that it is only for note taking purposes. If you do not feel comfortable with it, I will not record this conversation. Is it OK to record the conversation? Do you have any other questions before I begin?

For the interviewer to complete:

- **Interviewee name and job title: _____**
- **Date/time of interview:_____**
- **Type of public health facility (FQHC, LHD, etc.):_____**

1. How long have you been practicing as a dental hygienist?
    a. How long have you been working at this facility?
    b. Do you work anywhere else as a dental hygienist? (public or private)
2. How did you begin working in the dental public health field?

3. Are you aware of, or what is your understanding of the Public Health Dental Hygiene Act?
    a. *If yes, provide explanation if interviewee does not know much about it. Also for in-person interviews, have a one page document in hand which explains it. Then proceed to question 4.*

4. How and when did you find out the Public Health Dental Hygiene Act passed?
    a. Upon learning that the law passed, to what extent, if any, were changes to your practices in the facility/facilities or sites you work in made? Please describe these changes.
    b. Were there any barriers you observed that were encountered in making the change(s) you described?

5. Please give me an overview of the extent to which the facility/facilities or sites you work in currently use dental hygienists.

   a. Looking back to 2007 (one year before the law passed), how, if at all, were dental hygienists used differently in the same facilities/sites?

6. Thinking back before the act passed (pre 2008) vs. immediately afterwards and now, to what extent has the scope of your work changed in the facility/facilities or sites you work in?

7. Do you currently perform all the services within your scope of dental hygiene practice that is permitted under this bill (oral health education; dental screenings; dental sealants, fluoride varnish, toothbrushing w/fluoride toothpaste, prophylaxis, and x-rays) at the facility/facilities or sites you work at?

8. To what extent do you feel valued as a result of the expanded opportunities to practice new scope of practices allowed under the act? In other words, has the extent to which you feel valued in your workplace(s) changed since the act passed?

9. What, if any oral health-related programs does the facility/facilities you work in offer to the public? Please describe them and indicate whether or not each one includes the use of public health dental hygienist(s).
   - Did these program(s) exist prior to the law passing in 2008?
   - Would you say the passing of the law impacted the development of these program(s)?

10. Since the act passed in 2008, to what extent have you been able to recommend patients you see in off-site locations to a dental home? Is there a difference now vs. before the act passed in the number of people you recommend to a dental home?

11. Are there other populations you have noticed that are being seen by dentists and dental hygienists more often than before the act?

12. Do you have any additional comments or ideas to share with me regarding the Public Health Dental Hygiene Act?

Interview Guide for Representatives from Dental Health Organizations

Thank you taking the time to meet with me today. As you know, I am Deborah Levy, an independent consultant who was hired by the Maryland Office of Oral Health to conduct an evaluation of the Public Health Dental Hygiene Act. Since the bill passed in 2008, there have not been any studies done on its impact. This is the purpose of my evaluation, as well as looking at the implementation of the law in public health facilities across the state. The evaluation includes conducting interviews with different stakeholder groups such as public health facility administrators, public health dentists, dental hygienists, and representatives from dental organizations in Maryland like you. All of the information I collect will be reported in the aggregate and no names will be attached to individual comments. If it is okay with you, I would like to record our conversation. Please know that it is only for note taking purposes. If you do not feel comfortable with it, I will not record this conversation. Is it OK to record the conversation? Do you have any other questions before I begin?

For the interviewer to complete:

Interviewee name and job title: _____

Date/time of interview: _____

Organization Name: _____

1. How do you define a "public health dental facility" in Maryland?
    a. How about the definition of a "public health dental hygienist?"

2. Are you aware of, or what is your understanding of the Public Health Dental Hygiene Act?
    a. If yes, provide explanation if interviewee does not know much about it. Also for in-person interviews, have a one page document in hand which explains it.
    b. Were there any barriers you observed that were encountered in making the change(s) you described?

3. Has there been any impact on your organization? What are your thoughts on this?
    a. Have you received any feedback from dentists/hygienists/members?

4. To what extent, if any have you noticed a change in the efficiency of public health facilities and how they function since the act?

5. To what extent, if any, do you think there are more dental hygienists working in public health settings now than before the act?

6. Do you have any additional comments or ideas to share with me regarding the Public Health Dental Hygiene Act?

Martin O'Malley, Governor ▪ Anthony G. Brown, Lt. Governor ▪ Joshua M. Sharfstein M.D., Secretary

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