Capstone Project Proposal

Development of a Calibration Session Manual for Dental Hygienists Involved in an Oral Health Survey of Michigan Nursing Homes

11/2/2009

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Submitted to the University of Michigan

ELearning Dental Hygiene Degree Completion Program

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Development of a Calibration Session Manual for Dental Hygienists Involved in an Oral Health Survey of Michigan Nursing Homes

Project Statement and Description

This Capstone project was to assist Michigan Department of Community Health (MDCH) in the development of a calibration session manual for dental hygienists involved in a Senior Smiles Survey to assess oral health needs in Michigan nursing homes. At the time, there was no scientific document to provide information on oral health needs of nursing home patients in Michigan. The project goal was to develop the calibration session manual for dental hygienists conducting the Senior Smiles survey. Calibration was a key component to the quality of the survey. Calibration was critical to produce the highest validity and reliability of the survey. The calibration session manual assisted the dental hygienists in using the standardized process of conducting the survey. The manual provided oral health professionals with a reference document.

Nursing home population is often neglected and underserved in terms of dental care. The project could reveal opportunities for oral health care improvement for Michigan nursing home patients based on the results of the Senior Smiles survey through educational programs. The intent of this project was that dental hygienists involved in the project would benefit from using the calibration session manual while assessing oral findings of nursing home patients. The utilization of the manual during the calibration sessions was intended to assist in producing valid survey findings by dental hygienists who used it. Ultimately, the goal was to develop a document called the Senior Smiles survey that will provide scientific evidence of the disease prevalence and increase awareness of the oral disease

of seniors in the state of Michigan. The final report will be published and the information included in the Michigan Burden of Disease Document.

The following organizational stakeholders were involved throughout the calibration manual and the Senior Smiles survey development: Michigan Coalition for Oral Health for the Aging (MCOH), the Michigan Oral Health Coalition (MOHC), and the Michigan Department of Community Health (Oral Health and Healthy Aging). Other project stakeholders were Dr. Sheila Vandenbush, an Oral Health Director (MDCH); Patti Ulrich, an Oral Health Consultant (MDCH); Dr. Mike Manz, an Association of State and Territorial Dental Directors (ASTDD) Consultant; and Wendy Kerschbaum and Anne Gwozdek, University of Michigan mentors and project advisors.

Implementation phase of the Capstone project included performing a pilot test of the manual and conducting the piloting calibration session for the dental hygienists. A pilot test of the manual includes feedback from three dental hygienists not involved in the project. The calibration session sites were geographically dispersed throughout the state. A pilot test of the calibration session was conducted on October 9, 2009, in Hudsonville, MI.

Review of the Literature

In 2007, nearly 1.2 million Michigan residents were aged 65 years and older.[1] They represent 12.7% of the total population in Michigan. The proportion of the elderly population in Michigan is expected to increase to 18.19% by 2025. On a national scale, the numbers of elderly Americans will more than double to 71 million by 2030; accounting for about 20% of the U.S. population.[2] As one ages, the incidence of chronic diseases increases, with almost 75% of the elderly having at least one chronic

illness.[3] About 50% have at least two chronic illnesses. The number of elderly Americans is rising which warrants increased attention to the health issues of these individuals.

Oral health is integral to general health. [4] Evidence-based research has established multiple linkages between oral and general health. Recently, the studies have been conducted to provide evidence of associations between oral infections (especially periodontal disease) and diabetes, cardiovascular disease, adverse pregnancy outcomes and certain pulmonary conditions.[4] Yet, elderly adults and institutionalized elders are among most underserved populations in terms of dental care in the United States. Dental care is one of the highest reported unmet needs amongst both elderly non-institutionalized and institutionalized populations.[5]

Dental diseases are highly prevalent in the American elderly population. In 2006, about 25 percent of adults 60 years and older were identified as edentulous.[6] Having missing teeth can negatively affect nutritional status of the elderly adults and lead to major health problems, as people with missing teeth prefer soft and easy to chew foods.[6] In addition, having missing teeth can negatively impact social life of elderly individuals due to the decreased self-confidence and comfort levels.

Approximately 23 percent of the elderly population ages 65 to 74-year old display severe periodontal disease. Research has shown a positive association between oral diseases and systemic conditions in vulnerable elderly population, delivering a message of special importance to the oral health needs of the elderly population. [4]

The majority of older adults live independently. However, approximately 5-10% of elders are functionally impaired and require long-term care.[7] Long-term care is a variety of services that include medical and non-medical care to people who have a chronic illness or disability.[8] In 2004, approximately

1.5 million elders lived in nursing homes in the U. S.[9] Eighty- eight percent of the nursing home residents are 65 years and older. Of this group, 45% were 85 years and older. In 2004, 66% of nursing residents ages 65 to 84 year old were female and 34% male; whereas 82% of residents aged 85 and older were female and 18% male.

Nursing home residents suffer from a myriad of chronic health conditions and diseases that negatively affect their well-being and level of functioning. Some of the chronic conditions include hypertension, arthritis, heart disease, and cancer. [10-11] Other conditions, such as dementia, impair mental well-being of nursing home patients. In 2005, almost 50% of patients had dementia and more than half were confined to a bed or wheelchair.[9] Approximately 80% of nursing home patients require assistance with daily activities, including oral hygiene procedures, from certified nursing assistants (CNAs) or nurse's aides. Therefore, CNAs and nurse's aides become key individuals who need to be educated on oral health importance, needs, and procedures for disabled nursing home patients. Coleman and Watson identified nursing home residents as population with the worst oral health status in the United States.[12] In the institutionalized population, most clinical studies report poor oral hygiene and associated dental and systemic diseases.[13] Research suggests strong links between poor oral health and systemic diseases, such as aspiration pneumonia (AP) in institutionalized older adults.[14-17] Multiple studies have indicated that improved professional oral health care (POHC) may prevent aspiration pneumonia in institutionalized patients.[14-18]

A nonequivalent control group study conducted by Abe, Ishihara, and Okuda revealed that professional oral health care was effective in reducing *C. Albicans* respiratory pathogens in nursing home patients. [14] A follow-up study of 141 nursing home patients was conducted by Adachi, et al., to evaluate the effectiveness of POHC on the reduction of fevers and fatal aspiration pneumonia in nursing home

patients over 24 months.[15] As a result, the prevalence of fevers, the ratio of fatal aspiration pneumonia and the numbers of *C. Albicans* were all significantly lower in the POHC group, compared to the non-POHC group ($P<.05$, $P<.05$, and $P<.01$, respectively). In 2002, Yoneyama, et al., conducted a two-year study of 366 nursing home patients to investigate pneumonia in 11 nursing homes in Japan.[16] Results indicated improvement in cognitive functions and activities of daily living in the group with oral care. Also, there was a significant decrease in pneumonia, febrile days, and death from pneumonia in the oral care group. Yoneyama and associates came to the conclusion in their investigation that oral care in nursing home residents may prevent pneumonia. Arpin evaluated available literature that studied oral hygiene and associated pneumonia or respiratory tract infection in elderly people.[17] Results from reviewed randomized controlled trials suggested that mechanical oral hygiene decreases mortality risk from pneumonia. Mechanical oral hygiene may prevent approximately 1 in 10 cases of death from AP in dependent elderly people. Scannapieco, et al., conducted a meta-analysis of the five intervention studies to determine the relationship between oral hygiene intervention and the rate of pneumonia in institutionalized patients.[18] They found a moderate level of evidence for the relationship between nosocomial, or hospital acquired pneumonia and the improvement of oral health care in nursing home patients. The researchers concluded that routine nursing practice needs to include more rigorous oral health care protocols.

In addition to the established oral-aspiration pneumonia link, there are other oral-systemic connections identified in nursing home patients. According to the study released at the annual American Geriatrics Society meeting, patients with Alzheimer's or other forms of dementia and people who have limited dexterity were at increased risk to develop dental problems.[19] Also, patients who had

a stroke or chronic obstructive pulmonary disease or patients who needed help eating were predisposed to developing oral disease or condition.

As a result of poor oral hygiene and associated high plaque indices, dental caries prevalence is high among the nursing home population. A study of Canadian nursing home patients reported that more than 78% of long-term care residents had at least one carious lesion, 50% had coronal decay, and 68% had root caries.[20-21] Xerostomia is another contributing factor to high dental caries prevalence among nursing home patients. Xerostomia is a common side-effect of multiple medications prescribed for treatment of chronic diseases in elders. Reduction in saliva increases not only the risk of caries, but also the risk of periodontal disease and oral candidiasis in nursing home populations.[22]

With all existing evidence-based research to indicate the importance of dental care for the institutionalized elders, many studies showed, however, that a knowledge gap existed amongst nursing staff, certified nursing assistants, and nurse's aides pertaining to oral health care provision for this population.[4, 7,23-25] In 2008, a study was conducted by the University of Michigan School of Dentistry to determine practices and perceived access barriers related to oral health by surveying directors of nursing (DONs) in Michigan nursing homes. [24] With the response rate of 32%, it was reported that 63% of facilities had a written dental care plan. Thirty-eight percent stated an examination by a dentist was provided to new residents. Over 50% of DONs were satisfied with how oral hygiene needs were met in their facilities. The greatest perceived barriers to dental care were willingness of dentists to treat nursing residents, as well as patients' financial concerns. The study concluded that even though oral health policies and practices vary in Michigan nursing homes, dental involvement in policy creation, consultation and service is limited. Dolan, et al., identified other common barriers to dental care for the institutionalized elders such as cost, lack of perceived need, transportation difficulties, education, and

attitudes of health care providers.[7] Dharamsi, et. al., conducted a study to examine the general impact of the education initiative at a long-term care facility in Vancouver.[25] The study reported that a knowledge gap was evident in some key areas pertaining to prevention of dental diseases. The results further suggested that the impact of educational interventions was affected by the quality of in-service education, an absence of identified enabling factors, and a strong commitment among long-term care facility staff to the provision of daily mouth care for the institutionalized elders.

As it is anticipated that 20% of individuals will be institutionalized by the age of 85, it is crucial that lack of knowledge and skill to provide adequate oral care gets addressed through educational programs targeted towards the primary healthcare workers responsible for daily oral care of the residents at the nursing homes and long-term care facilities.[23] At this point, the studies to document oral hygiene services for nursing home residents and to measure oral health knowledge of nursing staff are limited. There are very few documents available to indicate how much training certified nursing assistants and nurse's aides receive in oral health care provision for elderly. Other knowledge gaps include gaps for responding to the unmet oral health needs of older adults.

The literature related to the proposed Capstone project suggests that an oral health needs survey of Michigan nursing homes is much needed and will address identified research gaps on a state level. This survey is in the developmental stage and is called the Senior Smiles survey. Once the survey is developed, it will be distributed to Michigan nursing homes and the results will be analyzed and published. The survey development was accompanied by the development of a calibration session manual to assist dental hygienists who were conducting the survey. It provided dental hygienists with screening guidelines and protocol to follow throughout the process.

The process will include the following components: the resident interview, an open-mouth screening, and an alternative long term care facility (ALTCF) manager survey. The resident interview will be conducted to develop rapport with the resident and gain the widest range of data (Appendix A, pages 82-85). An open-mouth screening will collect the oral health data of the nursing home patients, as indicated on the Survey Adult Oral Health Screening form (Appendix A, pages 78-81). The ALTCF Manager Survey purpose is to assist in understanding of the perception that managers hold of oral health of the residents at the alternative long term care facilities (Appendix A, pages 54-63). The ALTCF Manager Survey will be completed by the managers at a suitable time and mailed back to MDCH.

The Senior Smiles survey will document oral health needs of nursing home and long-term care facility populations. The survey results will also establish the need for educational programs to increase oral health knowledge among nursing administrators and staff employed at the nursing home and long-term care facilities. Furthermore, it may open employment opportunities for dental hygienists as oral health directors to ensure quality of oral health care provision for vulnerable elderly population.

As some states have already conducted surveys similar to the proposed Senior Smiles Survey, agency responsible for conducting the survey reviewed existent surveys and developed one for the state of Michigan. Currently, its implementation is planned for January-February, 2010. The conducting of the resident interview and open-mouth screenings will be managed by the dental hygienists on a volunteer basis, requiring calibration of the volunteer efforts through a calibration session manual, which was undertaken in this Capstone project.

Rationale and Objectives

Rationale

The reason for selecting this project was that it assisted dental hygienists in collecting calibrated oral health data while performing the Senior Smiles survey. The information obtained from the survey may ultimately result in raising awareness and contributing to the improvement of oral health status of nursing home population through advocacy and educational efforts.

In addition, the rationale for the Capstone project relates to the *Healthy People 2010* objectives: to increase the proportion of long-term care residents who use the oral health care system each year (from baseline of 19 percent in 1997 to 32 percent in 2010).[26] The rationale and the outcomes of the Capstone project are based on the goals of *Michigan Oral Health Plan*:

Goal 1: To develop a statewide oral health surveillance system to provide a routine source of actionable data.

Goal 5: Develop a statewide education program aimed at increasing knowledge about the relationship between oral health and systemic health.

Goal 7: Increase the education of non-dental health care providers on the importance of oral health.[27]

In developing this project, personal gains included enhancement of skills in advancing an initiative, team building and project management, while collaborating with other professionals. Professional gains included improvement of professional networking skills while working with dedicated

dental hygienists in Michigan. Other professional gains were acquiring skills in program development, implementation and evaluation, as well as increasing skills in conducting calibration activities. Conducting a pilot test was a solid professional benefit as well.

Objectives

1. By the completion of the developmental phase, a calibration session manual for volunteer dental hygienists involved in the project will be developed.

2. By the completion of the developmental phase, a pilot test of a calibration session manual for volunteer dental hygienists will be conducted.

3. Upon completion of the project, a pilot test of the calibration session utilizing the manual will increase dental hygienists' understanding of the Senior Smiles survey screening guidelines and protocol.

4. Upon completion of the project, implement and evaluate a pilot test of the calibration session at a determined site, using developed manual as a reference.

Objectives 3 and 4 were altered as a result of the Senior Smiles project postponement on a state level. A pilot test of the calibration session was conducted on October 9, 2009. These objectives were evaluated based on the pilot test outcomes.

Project Design

The Senior Smiles survey will result in documentation providing evidence of the disease prevalence and increase awareness of the oral disease of seniors in Michigan nursing homes. The Senior

Smiles survey will consist of the interview with residents, an open-mouth screening, and the ALTCF manager survey. Dental hygienists will perform oral screenings and conduct interview as a part of the oral screening process. The resident interview will be conducted first to establish a patient rapport. An open mouth screening will follow to assess oral conditions and record them. Both interview and an open- mouth screenings will be conducted by the volunteer dental hygienists. The managers of the ALTCF will be asked to complete the ALTCF survey and return it to MDCH in a timely manner. The Capstone project was designed to develop the Senior Smiles survey calibration manual for volunteer dental hygienists participating in a calibration session.

The manual assisted in the calibration of the dental hygienists throughout the entire screening process and served as a reference document during a pilot test of the calibration session. The manual development involved reviewing senior oral health surveys conducted by other states, including Kentucky, Massachusetts and Nevada, as well as Association of State and Territorial Dental Directors (ASTDD) basic screening tool. Certain assessment criteria was adopted from these surveys and incorporated into the Senior Smiles survey. The manual for the project was modeled after the Count Your Smiles (CYS) screening protocol.[28] The Count Your Smiles survey is a screening assessment of third grade children conducted in Michigan in 2005. The use of similar training manual for the CYS survey has been successful, as reported by one of the stakeholders involved in its development.[29]

The rough draft of the calibration session manual included introduction, guidelines for screeners, survey protocol, screening coordination activities and selected Appendix sections. The rough draft was sent to the MDCH mentors for preliminary review by August 9, 2009. Upon return, the feedback was incorporated. This document has undergone pilot testing. Four dental hygienists who were not involved in the project were requested to participate in the pilot test. They read through the

calibration session manual and provided their feedback. Their feedback was used to improve the document. They have utilized the Feedback Session Form to provide their feedback (Appendix B).

Once the final document was produced, forty copies of the document were printed on September 30, 2009. Calibration session sites will be geographically dispersed throughout the state. The calibration sessions will start taking place during November-December, 2009. A pilot test of the calibration session took place on October 9, 2009, in Hudsonville, MI. The manual was utilized during the calibration session. The benefits of the pilot test of the session included clarification of the manual sections and assistance in identifying the amount of time that should be allotted for the actual calibration session.

Methods

This project has undergone Institutional Review Board review and has been exempt from it. Registered dental hygienists will undergo one calibration session on a scheduled date at the site closest to them. The session will be accompanied by a manual, specifying guidelines for dental hygienists (screeners) and providing a screening protocol to follow before, during and after the completion of the project. The manual is intended to calibrate the screeners to ensure the findings are assessed following the same guidelines and protocol.

Due to the postponement of the Senior Smiles Survey project on a state level, a calibration session with volunteer dental hygienists could not take place. As a result, a pilot test of the calibration session was conducted on October 9, 2009. The methods used to conduct the pilot test included question/answer format, PowerPoint presentation in correlation with the manual pages, and evaluation (Appendix B).

This survey followed the methods outlined by the State and Territorial Dental Director's Basic Screening Surveys: An Approach to Monitoring Community Health. Following the examples of several similar state survey designs (Kentucky, Massachusetts, and Nevada), the oral health interview and the oral screening forms were developed. All forms included in the Appendix section were developed in a timely manner. Some of the forms were modeled after similar forms used in the CYS screening protocol. Other forms were primarily adopted from Massachusetts oral health survey for seniors.

The following materials and resources were required for the manual development:

- Current literature;
- Current concepts and methods used by other states (for reliability and comparability);
- Time and expertise to develop manual;
- Time and expertise to conduct a pilot test of the calibration session and the manual;
- Funding for printing forty copies of the manual (MDCH).

Each dental hygienist will be required to attend one calibration session. As four to five calibration sessions will be scheduled by the MDCH staff around the state of Michigan, the manual will be provided for each session participant and used by the dental hygienists at the clinical sites for reference.

Implementation Plan

Determining the oral screening and questionnaire content and format was the first step towards implementation. This step included reviewing oral health surveys conducted by other states, such as Kentucky, Massachusetts, and Nevada oral health surveys. The following steps were an outline

development and feedback request from Dr. Vandenbush and Patti Ulrich. Once the outline fulfilled MDCH criteria, the manual rough draft was developed. The rough draft was sent to Dr. Vandenbush and Patti Ulrich for revision and feedback by August 9, 2009.

Dr. Vandenbush and Patti Ulrich made revisions to the calibration session manual rough draft. The copy of this document was sent to four dental hygienists not involved in the project for a pilot test. By the pilot test completion date, the feedback was obtained from three dental hygienists. The feedback from one dental hygienist was obtained in a face-to-face manner. The other two pilot test participants provided their feedback via email correspondence utilizing Feedback Session Form (Appendix C). Once the pilot test was complete and the feedback was received, the manual was revised by MDCH professionals and a final document was produced. Forty copies of the calibration session manual were printed on September 30, 2009. The manual will serve as a reference document for the dental hygienists conducting the resident interview and the open-mouth screening.

The pilot test of the calibration session took place on October 9, 2009, in Hudsonville, MI. Dr. Vandenbush, Diane Black, RDH, MS, and Peggy Sloma, RDH and a volunteer for the Senior Smiles survey, were present. All dental hygienists have had extensive experience in working with nursing home population. Dr. Vandenbush provided LCD projector and four copies of the calibration session manual for the participants. PowerPoint presentation was shown to the dental hygienists. Slides in the PowerPoint presentation correlated with the manual pages. Question/answer session took place after each slide and discussion occurred. All of the obtained feedback was incorporated into the final draft of the manual by Dr. Vandenbush. Calibration evaluation forms were administered upon calibration session completion (Appendix B).

Results

The project was evaluated based on successful completion of project objectives as determined by the evaluation measures and/or outcome indicators listed in Table 1. The project evaluation by the MDCH professionals was one of the methods for evaluating the objectives. A final document of the manual for the Senior Smiles survey evidenced the completion of the Capstone project (Appendix A).

Table 1. Program Objectives and Evaluation

Objectives (by number)	Evaluation Measures/Outcome Indicators
1. **By the completion of the developmental phase, a calibration session manual for volunteer dental hygienists involved in the project will be developed.**	The existence and acceptance of the manual by MDCH will determine that the objective has been achieved. Target/Outcome Indicator: As a part of methods for developing the manual, each dental hygienist who utilized the calibration manual prior to conducting the survey will be asked to report the use of the manual. The numbers will be recorded in an associated file.
2. **By the completion of the developmental phase, a pilot test of a calibration manual for volunteer dental hygienists will be conducted.**	A manual document will be sent to four dental hygienists for a pilot test. Their feedback will be incorporated into the final revision of the document. Target/Outcome Indicator: Face-to-face feedback sessions with two RDHs. Two feedback forms returned via email correspondence from dental hygienists during the pilot test period (Appendix C).
3. **Upon completion of the project, a pilot test of the calibration session utilizing the manual will increase dental hygienists' understanding of the Senior Smiles survey screening guidelines and protocol.**	Pre-test will be administered to the participating dental hygienists prior to the piloting calibration session (Appendix D). Post-test will be administered following the piloting calibration session. The results will be compared and conclusions will be drawn. Target/Outcome Indicator: The dental hygienists will demonstrate increase in knowledge by

	answering 90% of the post-test questions correctly (Appendix D).
4. Upon completion of the project, implement and evaluate a pilot test of the calibration session at a determined site, using developed manual as a reference.	Document the location, date, time, and the number of participants at the piloting calibration program. Administer the calibration session evaluations to determine its success rate. A brief calibration session evaluation will be administered following the calibration session (Appendix B). Target/Outcome Indicator: At least 90% of the attendees will find the piloting calibration session and manual helpful, as reported on the administered calibration session evaluation. A pilot test of the calibration session will be conducted with Capstone project author's participation at a determined site during the implementation phase of the project.

Objective 1

The calibration session manual has been developed by the proposed deadline (Appendix A). Forty copies of the manual have been printed at MDCH for use during calibration sessions in November-December, 2009. The calibration manual was used as a reference document during a pilot test of the calibration session on October 9, 2009.

Objective 2

A pilot test of the calibration session manual was conducted between September 10 and September 25, 2009. The copy of the manual was sent via email to four pilot test participants. Pilot test participants included four dental hygienists who were not involved in the Senior Smiles survey. The

dental hygienists were selected from diverse educational backgrounds and with various professional experiences.

Three dental hygienists reviewed the manual in a timely manner. Two dental hygienists provided their feedback via email correspondence and filled out the Feedback Session Form (Appendix C). One dental hygienist provided her feedback during a face-to-face session on September 22, 2009. The Feedback Session Form was filled out at that time. As one of the pilot test participants replied later than indicated deadline, another face-to-face session could not be scheduled. Therefore, Objective 2 outcome indicator has been partially achieved. All participants responded "yes" to all five items. One participant suggested clarifying instructions for the Modified Eastman Interdental Bleeding Index. The other participant noted several mechanical inconsistencies. The third participant described the calibration manual as "nicely detailed with preparation steps." [30] In the future, a greater number of pilot test participants should be chosen to accommodate for participants who do not reply.

The use of formative feedback was crucial in order to improve the quality of the calibration session manual. For the purposes of this project, "formative feedback" was defined as an evaluation and comments (on the Feedback Session Form) obtained from the pilot test participants during the developmental stage with the intent to improve the manual. All three Feedback Session Forms have been emailed to Dr. Vandenbush for review and inclusion in the final draft of the manual.

Objective 3

Due to the Senior Smiles survey postponement by MDCH, the calibration sessions will take place in November-December, 2009. To improve the calibration session manual and to fulfill the requirements for the Capstone project, a pilot test of the calibration session utilizing the manual was

conducted on October 9, 2009. Dr. Vandenbush and two other dental hygienists with experience in public health were present during a pilot test.

The pre-test/post-test format was used to evaluate if there has been an increase in dental hygienists' understanding of the Senior Smiles survey screening guidelines and protocol (Appendix D). The tests included general questions about the Senior Smiles survey, oral health screening indices used in the survey, and the dental hygienists' responsibilities during the survey conduct. Test questions consisted of four multiple-choice questions and six "true or false" questions. Two dental hygienists completed the pre-test and post-test. There was no time limit specified to complete the tests.

Table 2 shows the results of the calibration session pre-test/post-test by reporting the correct responses and percentage of improvement from the pre-test to the post-test. The results indicated in Table 2 could have been affected by the fact that dental hygienists could answer certain questions only after the calibration session completion.

The pre-test indicated 30% and 70% of correct responses. In the pre-test, both dental hygienists answered Questions 1 and 5 incorrectly. The post-test indicated 90% and 100% of correct responses. Question 10 of the post-test was answered incorrectly by one of the dental hygienists. The outcome indicator for this objective was set at 90% of the post-test questions answered correctly.

Table 2. Percentage of Calibration Session Test Improvement (n=2)

Question #	Pre-Test/Post-Test Correct Responses	% of Improvement
Q1 (Senior Smiles survey is…)	1 / 2	50%
Q2 (Interview advantages are…)	1 / 2	50%
Q3 (Mod. Eastman Interdental Bleeding Index will assess…)	1 / 2	50%
Q4 (T/F: RDHs will use probes &explorers)	1 / 2	50%
Q5 (RDHs will assess all of the following, except…)	0 / 2	100%
Q6 (T/F: Positive informed consent is necessary)	2 / 2	No improvement
Q7 (T/F: 2 cal. sessions for each RDH are required)	1 / 2	50%
Q8 (T/F: RDHs will give pts referrals to DDS)	1 / 2	50%
Q9 (T/F: RDHs will instruct all caregivers on OH provision)	1 / 2	50%
Q10 (T/F: RDHs will be responsible for analyzing data with MDCH)	1 / 1	No improvement

As evidenced by the summary in Table 2, the increase in dental hygienists' understanding of 50% is observed. Question 6 indicated "no improvement," as it was answered correctly by both pilot test participants initially. Question 10, on the other hand, indicated "no improvement," as it was answered incorrectly by one of the participants following the calibration session.

Dental hygienists demonstrated increase in knowledge by answering 90% and 100% of the post-test questions correctly. The pre-test limitations included assumption of basic knowledge of the Senior

Smiles survey project. Even though the copy of the manual has been sent to all of the participants via email, not everybody was able to review it. Therefore, the percentage of improvement indicated in Table 2 could have been affected by the pre-test limitation.

Objective 4

As the Senior Smiles survey project was postponed by MDCH, the calibration sessions will take place in November-December, 2009. However, a pilot test of the calibration session was indicated by MDCH project stakeholders. A pilot test of the calibration session was conducted on October 9, 2009, from 4:00pm-7:30pm in Hudsonville, MI. Dr. Vandenbush and two other dental hygienists were present for a pilot test. The educational objectives for the piloting calibration session included:

1. Upon completion of the calibration session, the participant will be able to identify the objective/goal of the Senior Smiles survey.
2. Upon completion of the calibration session, the participant will be able to summarize his/her responsibilities during the Senior Smiles survey.
3. Upon completion of the calibration session, the participant will be able to demonstrate an increase in understanding of the Senior Smiles survey conduct by the completion of the post-test with 90% of correct responses.
4. During the calibration session, the participant will utilize the calibration session manual as a reference document. Each participant will be given a copy of the manual.
5. Upon completion of the calibration session, the participant will evaluate the calibration session and the manual. The calibration session evaluation forms will be provided at the end of the session.

The formative feedback provided by the dental hygienists during a piloting calibration session was important, as it demonstrated the following:

1. The sections of the calibration/training that were unclear;
2. The sections of the calibration/training that needed additional time (i.e., some concepts were easier to grasp than others);
3. The approximate length of the calibration session for future reference;
4. The typos in the manual and a paragraph with conflicting information.

To evaluate the calibration session properly, well-designed evaluation forms need to be used and the feedback must be analyzed carefully. A Likert scale evaluation form was developed consisting of eight questions assessing the participants' overall experience during the calibration session (Appendix B). The following topics were included in the session evaluation form: achievement of the stated objectives (Question 1); presenter's knowledge (Question 2) and preparation level (Question3); use of teaching methods (Question 4); presenter's responses to questions (Question 5); course expectations (Question 6); and the knowledge level of the attendees following the session (Question 7). Question 8 asked if the calibration manual was helpful to the attendees. Question 9 inquired if the participants had any further questions in regards to the survey conduct. Upon completion of the session, the dental hygienists were asked to complete the Senior Smiles Calibration Session Evaluation Form. Both dental hygienists circled "strongly agree" to Questions 2-8. One participant circled "agree" to Question 1 on achieving the stated objectives. Both dental hygienists "strongly agreed" and found the calibration session and the manual "helpful." One dental hygienist commented in the Comments section of the evaluation form on how much she has appreciated the visual aids used in the presentation. All

participants received two continuing education credits approved by MDCH for the completion of the Senior Smiles calibration.

A discussion of incorporating social research to support the Resident Interview section also took place during the calibration session. For the purposes of this project, "social research" was defined as gathering information on the interviewing techniques of elderly population, and interpreting it in order to conduct effective interviews with nursing home residents as a part of the Senior Smiles survey. The copies of the draft on social research tips were given to the dental hygienists for review and feedback. The plan was to supplement the calibration session manual with the handout of social research tips on what issues should be considered when conducting an interview of an elderly person. As of the date of this report, the feedback has not been received.

Discussion/Impact

This Capstone project has directly addressed its goal, as evidenced by the developed calibration session manual (Appendix A). The project objectives have also been achieved, as demonstrated by the achievement of outcome indicators.

The first phase of the Senior Smiles survey project has been completed and piloted. Therefore, MDCH can move forward with the calibration sessions. This project was critical in advancing the initiative of a bigger project.

The development of the manual has resulted in lessons to be taken in the future. Developing a solid contingency plan in the beginning stages of the project is strongly advised. The number of pilot test participants should be determined carefully in order to accommodate for participants who do not

comply with testing requirements. When developing a pre-test and a post-test, the assumption of prior knowledge must be avoided.

The project findings evidenced the significance of the calibration process as a key component to the quality of the survey. As several oral health professionals reviewed and provided feedback on the manual, it might have contributed to the highest validity of the survey. The development and implementation of the calibration activities contributed to the personal and professional growth, as well as to the advancement in the areas of professionalism, leadership, and organization.

The results of this project might have been affected by the contributing factors, such as MDCH scheduling, funding activities, and associated deadlines, as well as the limited number of pilot test participants, and a pre-test that assumed prior knowledge of the subject. In addition, the fact that the Senior Smiles survey project was still at its infancy and coincided with the conduct of the Count Your Smiles survey by the beginning of the Capstone project could have contributed to the changes in the project timeline. This fact provoked additional question: "If the timeline by MDCH would have been different, how would it have affected the project outcomes (e.g., the conduct of the actual calibration session, content of the manual, etc.)?"

After participating in the piloting calibration session, two dental hygienists confirmed their interest in becoming volunteers for the Senior Smiles survey conduct. These dental hygienists have extensive experience in working with nursing home population, and their expertise and knowledge would be outstanding assets to the project. Further professional networking on a larger scale could potentially build the cadre of dental hygienists who will be part of the project to conduct the screenings

and the interviews. The involvement of this professional cadre could potentially contribute to improving the quality of life for nursing home population long-term.

The project has had substantial impact on the project stakeholders. As the Senior Smiles survey was at its infancy, the Capstone project has advanced the initiative and contributed to the acceleration of associated activities. The development of the calibration session manual was the first step to forward the project. It has also been the first step towards accomplishing Goal 1 of *Michigan Oral Health Plan*:

Goal 1: To develop a statewide oral health surveillance system to provide a routine source of actionable data.[27]

MDCH has benefitted from the completion of the Capstone project. The calibration session manual has been developed, pilot tested and accepted by MDCH for printing in a timely manner. The calibration session has been pilot tested, and two dental hygienists expressed their interest in further project involvement. Next steps for this project include conducting calibration sessions throughout four-five geographic sites in Michigan. Once calibration sessions have been completed, the data collection phase of the survey would start. The University of Michigan mentors might suggest undertaking the implementation and evaluation phases of the Senior Smiles survey for future dental hygiene ELearning students.

Conclusions

To replicate similar project in the future successfully, further improvements should be made to this project. The number of participants for the manual pilot test should be increased. A calibration session pre-test should be revised to avoid an assumption of previous knowledge. Due to the probable

changes in the project timeline, having a solid contingency plan is strongly recommended for the projects that are conducted in collaboration with state or federal agencies.

Next steps for the Senior Smiles survey include the development of the social research tips handout to supplement the manual. The scheduling process of the calibration sessions should be completed and announced in a timely manner. At that time, dental hygienists should be assigned to a certain location for the calibration session conduct. Upon completion of the calibration sessions throughout the state, the Senior Smiles survey conduct will start.

The Capstone project was pivotal in advancing the initiative of the Senior Smiles project. It was fundamental for the implementation and evaluation phases of the survey. As the Senior Smiles survey is the first project of its kind in the state of Michigan, the results will be compared to the other states that have already conducted similar surveys. This project could serve as a model for future projects. A final report will be published and the information included in the Michigan Burden of Disease Document.

Timeline

Table 3. Project Timeline

Project timeline				
Task	**Activities**	**Start**	**Completion Date**	**Resources**
Research phase				
Define project scope	1. Review of the Literature to indicate research gap	July 1,2009	August 1,2009	U of M DH mentors, MDCH mentors
	2. MDCH teleconferences	July 2 July 17	July 2 July 17	
	3. Review of the surveys from other states	July 1	August 1	
Development phase	1. Development of the calibration manual rough draft	June 28	August 31	U of M DH mentors, MDCH mentors
	2. Utilization of the Count Your Smiles training manual		August 9	
	3. Rough draft submission to		August 9	

	MDCH for review			
Revision phase	1. Revise the rough draft	September 7	September 10	MDCH mentors
Pilot test phase	1. Conduct pilot test 2. Develop evaluation instruments	September 10	September 25 September 14	Volunteer dental hygienists, U of M and MDCH mentors, RDHs not involved in the project
Presentation phase	1. Modify the manual as a result of a pilot test 2. Develop 'Social research tips' section 3. Present final manual to MDCH	September 25	September 29 September 30 September 30	U of M and MDCH mentors; volunteer RDHs
Training phase	1. Conduct a pilot test of the calibration session using the manual 2. Participate in MDCH teleconference 3. Utilize evaluation instruments	October 1 October 2 October 9	October 9 October 2 October 9	Volunteer RDHs, MDCH mentor
Evaluation phase	1. Evaluate the completion of the project as outlined in Table 1. 2. Participate in OH of Our Aging Population web-conference	October 10 October 18	October 20 October 18	MDCH mentors
Report writing phase	1. Development of the Capstone Project Final Report	October 1,2009	November 2, 2009	U of M and MDCH mentors

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The Senior Smiles Survey Calibration Manual

Screening Protocol and Guidelines

2009

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Senior Smiles Survey Administration

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Funding for the Senior Smiles Survey:

This publication was supported by CDC Cooperative Agreement Number U58/DP001536. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.

Methods:

This survey followed the methods outlined by the State and Territorial Dental Director's Basic Screening Surveys: An Approach to Monitoring Community Health. Following the examples of several similar state survey designs (Kentucky, Massachusetts, Nevada), a descriptive design was utilized. The descriptive design for research provides examination of facts about people, their opinions and attitudes. It does not give value to sets of relationships between events, but simply draws attention to the degree two events or phenomena are related. The description methods of this study include:

1) Collection of facts that describe existing oral disease prevalence;
2) Identification of problems or justification of current conditions and practice;
3) Project evaluation; and
4) Comparison of the oral health of the elderly population with Healthy People 2010 objectives

Oral health status data will be collected on a statewide sample that is randomly drawn and includes all long-term care facility types. The sample consists of 122 nursing home facilities and 760 residents. The survey instruments require positive consent and include an interview of the Alternative Long-Term Care Facility (ALTCF) resident aged 65 or older on their perception of their oral health, a screening assessment which includes an oral cancer screening, and 3) a survey of the ALTCF manager on the perception of oral health of the residents in the facility. Collection of data and analysis of the results will be completed by the MDCH Oral Health Program. A final report will be published and the information included in the Michigan Burden of Disease Document.

Acknowledgements:

Portions of the resident survey were utilized by permission from the Massachusetts Department of Public Health and the Kentucky Oral Health Program (KOHP) with the Department for Public Health. The Director of Nursing Survey was modified by permission from the survey utilized in reference to: Smith BJ, Ghezzi EM, Manz MC, Markova CP. Perceptions of Oral Health Adequacy and Access in Michigan Nursing Facilities. J Gerodontology 25: 89-98, 2008.

Sampling was completed by Dr. Michael Manz of the University of Michigan. The screenings were completed by volunteer dental hygienists that participated in both a training and calibration session.

Training Dates:

Training sites will be geographically dispersed throughout the state.

Introduction

What is Senior Smiles survey?

The Senior Smiles survey is a screening assessment of Michigan residents aged 65 and older who live in Alternative Long Term Care Facilities (ALTCF). The focus of the survey is to provide definitive data describing the oral health status of Michigan's elderly population. Oral health status data will be collected on a statewide sample that is randomly drawn and includes alternative long-term care facility types. The sample consists of 122 facilities and 760 residents. The Senior Smiles survey will result in a document that will provide scientific evidence of the oral disease prevalence of the elderly Michigan population.

The Michigan Department of Community Health (MDCH) is hopeful that the assessment will strengthen community capacity and skills needed for collecting community-specific oral health data. MDCH will train all local screeners at half-day workshops in several different geographic locations in an attempt to accommodate the screeners. MDCH is utilizing volunteers either through dental and dental hygiene schools, safety net clinics, sealant programs or local volunteer dentists or dental hygienists to conduct the Senior Smiles survey. MDCH thanks in advance those passionate and dedicated dental hygienists who participated in the Count Your Smiles survey and agreed to assist with the Senior Smiles survey.

MDCH will provide copies of all forms and letters for the screeners to use in order to engage the ALTCFs and interview and screen the residents; all supplies needed to screen the designated number of residents; and incentives for the residents (such as, electric and manual toothbrushes and brushes for dentures).

MDCH will analyze the data once it is collected and submitted and distribute the results throughout the state and nation. It will be the first publication that would contain scientific evidence of oral disease prevalence of seniors in alternative long-term care facilities in the state of Michigan. The oral health survey goals are comparable with the Healthy People 2010 Oral Health Objectives and Michigan Oral Health Plan and include:

- To increase the proportion of long-term care residents who use the oral health care system each year (from baseline of 19 percent in 1997 to 32 percent in 2010);
- To develop a statewide oral health surveillance system to provide a routine source of actionable data;
- To develop a statewide education program aimed at increasing knowledge about the relationship between oral health and systemic health;
- To increase the education of non-dental health care providers on the importance of oral health.

The oral health data elements are comparable to the ones included by other states which conducted senior oral health surveys, such as dental caries experience, presence of cavitated lesions, presence of oral pain/discomfort presence, presence of soft tissue lesions, edentulism, and urgency treatment determination. The oral health data is appropriate for inclusion in the National Oral Health Surveillance System administered by the CDC. The data

will be used as an indicator of oral health and a statewide baseline for future program planning and evaluation.

Screening by dental hygienists falls within the scope of practice of the Michigan Board of Dentistry Administrative Rules. Screening is not considered a diagnostic procedure. Any questions regarding this can be addressed to the following:

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Guidelines for Screeners

Sample Selection

The selected sample consists of approximately 760 residents at 122 facilities (about 6 people per facility). Four Michigan regions are included in the survey: Upper (Northern) Lower Peninsula, Wayne/Oakland/Macomb, Upper Peninsula, and Lower (Southern) Lower Peninsula. The Upper Peninsula and the Upper Lower Peninsula are oversampled in order to get a reasonable number of facilities for representation of these areas. Generally speaking, there is a higher proportion of elderly alternative long-term care facility (ALTCF) residents in the Lower (Southern) Lower Peninsula region. The sampling frame is limited to residents aged 65 and older in the facilities.

Informed Consent

To be screened, informed consent must be signed by the ALTCF resident or legal guardian (Appendix E).

Facility Informed Consent

To start conducting the survey and screening, the dental hygienist or dentist must make initial contact with the facility. The informed consent agreeing to the survey and screening, as well as indicating the date and time for the screening must be signed by the facility director or his/her designee within the facility.

Infection Control

Screeners will wear gloves during the screenings in the event that the screener inadvertently comes into contact with saliva or the mouth. According to CDC infection control guidelines, if a gloved hand touches the mouth's mucous membrane, lips, or saliva, gloves must be removed and hands must be washed or rubbed with an antiseptic hand rinse before putting on a new pair of gloves prior to screening the next person. Only disposable mirrors, 2 X 2 gauze squares, and cotton-tipped applicators will be used and will be disposed of promptly. *Gloves will be changed after each screening of every ALTCF resident.*

Hand Washing

In the event that a sink with soap and water is not available in the screening area, each screening kit contains an antiseptic hand cleaner. Lubrex or a similar hand cleaner is supplied in each screening kit for this purpose.

Surface Disinfectant

In the event that there is saliva or other bodily fluid exposure, a surface disinfectant is included in each screening kit. The surface disinfectant, Cavi-Wipes or similar brand, is Tuberculocidal, Fungicidal and Bactericidal. A tray-table cover is included to cover tabletops or counters to facilitate clean up and infection control.

However, all ALTCF have a protocol in place for disposing of bodily fluids; screeners may want to check with the facility for specific protocols.

Lighting

Screeners should use a strong penlight or small flashlight provided by MDCH. If available, screeners may opt to use a portable fiber-optic light. Screeners will not rely on natural light.

Retraction and Visualization

Disposable dental mirrors or tongue blades will predominantly be used for retraction and visualization. If necessary, a gloved hand can be used for retraction. Gloves will always be changed when exposed to oral fluids.

Removing Food Debris from Teeth

If tooth surfaces cannot be visualized because debris obscures the view, the screener can use a cotton tip applicator or 2X2 gauze square to gently clean away food.

Dentures

If the ALTCF residents wear dentures, patients will be asked to remove the dentures. The dentures will be placed on the paper tray cover.

Human Subject Clearance

The project has been determined to be “exempt” by the MDCH Institutional Review Board (IRB).

HIPAA

The Administrative Simplification standards adopted by the Department of Health and Human Services (HHS) under the Health Insurance Portability and Accountability Act of 1996 (HIPAA) apply to any entity that is:

- a health care provider that conducts certain transactions in electronic form
- a health care clearinghouse
- a health plan

Before beginning the process of planning your survey, the screener should contact your agency's HIPAA coordinator to determine if your agency is a covered entity. More information on HIPAA can be found at the HHS, Office for Civil Rights website (www.hhs.gov/ocr/hipaa).

Senior Smiles Survey Protocol

Resident Interview

The advantage of the interview is its effectiveness in surveying special populations and gaining in-depth information. Interviewing is particularly useful in gathering data from the elderly, the handicapped, the illiterate or the culturally different. A personal, face-to-face interview is recommended to develop rapport and gain the widest range of data. Whenever possible, the question should be answered. Relying on "Don't know/Not sure" as answers does not yield the rich data necessary for data analysis or interpretation. Conducting the interview first when the resident is "fresh" and at a time of day most convenient to the resident's schedule

may assist in compliance in answering the questions. It is important not to “coach” or “assist” the resident to the extent that the answers to the questions are influenced by the method or manner the question is asked. The interview can be found as Appendix F.

Open-Mouth Screening

The Screening Form, found as Appendix G, should be completed after the Oral Cancer Screening is conducted.

<u>Oral Cancer Screening:</u> The following sequence is recommended:

- Extraoral – with gloved hands
  - Observe physical characteristics and abnormalities, make an overall assessment
  - Observe head, face, eyes, and neck; evaluate the skin of the face and neck
  - Palpate the salivary glands and lymph nodes of the head and neck

Picture reference:

http://www.uptodate.com/online/content/image.do?imageKey=onco_pix/lymp

- Intaoral – with fresh gloves

- Examine the lips and intraoral mucosa with the mouth mirror
- View and palpate lips, labial and buccal mucosa and mucobuccal folds
- Examine and palpate the tongue. Wet a 2 X 2 gauze square and gently hold the tongue. Move the tongue out and side to side as you examine the dorsal and ventral surfaces, lateral borders and base.
- Observe the mucosa of the floor of the mouth
- Examine the hard and soft palates, tonsillar areas, and pharynx

Note any abnormalities on the Screening Form (Appendix G) under "Soft Tissue Lesions"

<u>Oral Health Screening:</u>

- Edentulous:
  - Record if the maxillary or mandibular arch is fully or partially edentulous
    - Full = all teeth are missing
    - Partial = at least 3 teeth are missing in each arch
  - Record if the resident wears a maxillary or mandibular full or partial denture
  - Record if the denture is functional – *does the resident only wear the denture occasionally or all the time? Can the resident chew food and speak well with the denture?*
    - *"none" = the resident does not wear the dentures or the dentures are not functional*
    - *"minimal" = the dentures are occasionally worn but are not useful for chewing or speaking*
    - *"adequate" = the dentures fit moderately well and are used by the client often for chewing and speaking.*
    - *"unknown" = denture functionality cannot be determined.*
- Soft Tissue Lesions (refer to Oral Cancer Screening)
- Xerostomia - *Clinical symptoms of xerostomia include a feeling of oral dryness the lips tend to "stick" together or the tongue sticks to the palate; the patient has difficulty with mastication, swallowing or speech; impaired taste, thirst; smarting burning or soreness of mucosa and tongue; heavy dental biofilm material alba and debris accumulation; increased severity of periodontal infection and dental caries.*

- Gingivitis (Mand Anterior only) – *Gingivitis affecting only the mandibular anterior teeth should be recorded. Symptoms of gingivitis include: inflammation of the gingival tissues (bleeding, redness, spongy marginal gingival, gingival enlargement.)*

- Oral Hygiene
    - Good: Minimum amount of biofilm, tissues generally appear healthy
    - Fair: Slight to moderate biofilm present on teeth, particularly around gumline
    - Poor: Heavy biofilm generalized throughout oral cavity
- Untreated Caries -*Untreated decay is detected by visual inspection only – explorers are not used. A tooth is considered to have untreated decay when the screener can readily observe* ***breakdown of the enamel surface****. In other words, only cavitated lesions are considered to be untreated decay. This applies to pits and fissures as well as smooth tooth surfaces.*
    - Following are two guidelines that you should remember when classifying untreated decay for a basic screening survey:
        - If a pit or fissure is stained and there is no apparent breakdown of the enamel structure, this is not untreated decay.
        - If the screener notices **a retained root**, assume that the whole tooth was destroyed by caries and code the individual as having untreated decay.

    - Root Caries: Note the number of teeth with root caries/lesions.

Treatment Urgency Codes: A treatment Urgency rating will be assigned to each senior by the criteria below:

Category	***Criteria***
Code 0 ***No obvious problem***	***No problems observed***
Code 1 ***Early dental care is needed***	**Cavitated lesions, broken restorations or chipped or broken teeth without accompanying signs or symptoms. Suspicious white or red soft tissue areas less than 2 weeks duration**
Code 2 ***Immediate dental care is needed within 24 to 48 hours.***	**Signs or symptoms that include pain, infection, or swelling; suspicious white or red soft tissue lesions that have been present for more than 2 weeks.**

Those individuals with no obvious dental problems observed are given a code “0”, which means that they should receive routine dental checkups as recommended by their dentist. You may, however, override a Code “0” and assign a Code “1” if there is some reason that you feel they need to see a dentist sooner than their next routine checkup.

Code 2: Urgent Care-signs or symptoms that include pain, infection, swelling, or soft tissue ulceration of more than two weeks duration (determined by questioning)

more than 2 weeks duration

Code 1: Needs **restorative** care-visible caries or broken or chipped teeth without accompanying signs or symptoms, individuals with spontaneous bleeding of the gums, or suspicious white or red soft tissue area

Code 0: No obvious problem, needs routine **preventative** care-any senior without the above problems.

The treatment urgency codes are assigned in a designed area of the oral health screening form (Appendix G).

Modified Eastman Interdental Bleeding Index: to access the presence of inflammation in the interdental areas by the presence or absence of bleeding.

□ **Excellent 0** □ **Good .3 - .4** □ **Fair .5 - .6** □ **Poor .6 - 1**

Instrument: Triangular interdental area around 6 identified teeth

Steps:

1. Insert gently, then immediately remove, a wooden cleaner (Stimudent™) into each interdental space in such a way as to depress the papilla 1 to 2 mm.
2. The Stimudent™ must be placed horizontal (parallel to the occlusal surface), taking care not to angle the point in an apical direction.
3. Depress and remove the Stimudent™ 4 times; move to the next interproximal area.
4. Record the presence or absence of bleeding within 15 seconds for each area

Scoring: The numbers of bleeding sites are total and divided by the number of teeth.

	#2-3	#8-9	#13-14	#18-19	#24-25	#30-31
Bleeding	**0 1**	**0 1**	**0 1**	**0 1**	**0 1**	**0 1**

If the teeth are not present, use the adjacent teeth

Y= 1 point **N = 0 point**

<u>Total bleeding index:</u> _____ **=** _____

Number of teeth scored = 6

Example:

	#2-3	*#8-9F*	*#13-14*	*#18-19*	*#24-25*	*#30-31*
Bleeding	_1_	_0_	_1_	_1_	_1_	_1_

Total bleeding score 5 = .83 **(Poor)**

Number of teeth scored = 6

Simplified Oral Hygiene Index (OHI-S)

□ **Excellent 0** □ **Good 1.1 – 1.2** □ **Fair .7 – 1.8** □ **Poor 1.9 – 3.0**

Total debris score: _____ Total calculus score: _____

	#3B	**#8F**	**#14F**	**#19L**	**#24L**	**#30L**
Debris	___	___	___	___	___	___
Calculus	___	___	___	___	___	___

If the tooth is not present, use the closest adjacent tooth in the arch.

0 = no debris/calculus

1 = soft debris/calculus not more than 1/3 of tooth surface

2 = soft debris/calculus = > 1/3 of the tooth surface but not more than 2/3 of the tooth surface

3 = soft debris/calculus covering more than 2/3 of the exposed tooth surface

Total debris scores _____ **=** _____ **Total calculus scores** _____ **=** ____

Number of teeth scored = **Number of teeth scored =**

Example:	*#3 B*	*#8F*	*#14F*	*#19L*	*#24L*	*#30L*
Debris	*2*	*2*	*1*	*3*	*3*	*3*
Calculus	*2*	*1*	*3*	*3*	*2*	*3*

Total debris scores *14* = *2.3* *Total calculus scores* *14* = *2.3*

Number of teeth scored = 6 *Number of teeth scored = 6*

(Poor) **(Poor)**

Untreated Caries:

Coronal Caries	□ **None**	□ **2-4 teeth**	□ **5-8 teeth**	□ **> 9 teeth**
Root Caries	□ **None**	□ **1-2 teeth**	□ **3-5 teeth**	□ **>6 teeth**

Treatment Urgency Needed:

□ Code 0: No Obvious Problems

□ Code 1: Needs Restorative Care

□ Code 2: Urgent Care Needs

REFERRAL Y N

Additional conditions or notes:

ALTCF Manager Survey

Senior Smiles Survey – Alternative Long Term Care Facility Manager Survey

The Michigan Department of Community Health is conducting the Senior Smiles Survey to increase the understanding of the dental health status and dental needs among our state's senior citizens. All facilities participating in the resident screening are requesting a short survey be completed by the ALTCF facility manager. Our purpose is solely educational. Publications of our results will not contain information that would identify specific facilities or individuals.

The survey typically takes about 10 to 15 minutes to complete. Please answer based on your own perceptions of the facility indicated on the mailing label.

1. Does your facility have a **written plan** of care for dental needs? □ Yes □ No

   a. If yes, did a **dental professional assist** in drafting it? □ Yes □ No
   b. If yes, who is **primarily responsible** for the day-to-day coordination of your facility's dental plan of care? (*please check one)*

   □ Facility administrator □ Director of Nursing

   □ Unit charge nurse □ Other RN

   □ LPN □ Dentist or hygienist

   □ Other: _____

2. Do you have **dental equipment** located within your facility? □ Yes □ No

a. If yes, is the equipment □ **mobile** or □ **stationary**?

3. Does your facility routinely offer a **detailed screening or exam** by a dentist or dental hygienist for new admissions? □ Yes □ No

4. Does your facility/agency have an agreement with a dentist to provide dental care when needed? □ Yes □ No

a. If yes, who pays the dentist for this service?
   □ Your facility **OR** □ The resident

b. If yes, does the dentist
   □ **Visit your facility regularly?** **OR** □ Is this for **emergency care only?**

c. If yes, what services are provided?
   □ **comprehensive services** (i.e. cleaning, x-rays, fillings, extractions,

   dentures and denture repair)?

   □ **prevention only services** (i.e. screening/exam, cleaning)

5. What percentage of your residents can **perform daily oral hygiene**?

a. Independently _____% (percentages should
b. With some assistance _____% total 100%)
c. **Not** able, requires total assistance _____%

6. **Does your facility** have one or more regular staff member(s) who is/are primarily responsible for

a. Checking patient's mouths for problems (screening)? □ Yes □ No
b. Daily dental cleaning of patient's mouths/dentures? □ Yes □ No
c. If yes, to a or b above, has this person(s) received formal training to provide these services? □ Yes □ No

7. **Please rate your satisfaction** with the way the oral hygiene needs of residents are your facility are being met by facility staff? (*Please check only one box)*

□ Very satisfied □ Somewhat satisfied □ Somewhat dissatisfied □ Very dissatisfied

1. Please estimate what percentage of your residents/clients have a:
   a. **Private** dentist _____ %
   b. **Family member** who takes them to the dentist as needed _____ %
   c. Dental care provided by a **dentist who visits your facility** _____ %
   d. **No regular sources of dental care** _____ %
   e. **Other** way of getting dental care _____ % *(Please describe below)*

2. **What percentage of all residents** in your facility **received dental treatment** during the past 12 months? Approximately _____ % **OR** □ Don't know

3. What **percentage of residents have dental services paid** for by the following:
   a. Paid by **your facility** _____ % of residents
   b. Medicaid _____% of residents
   c. **Private** health/dental **insurance** _____ of residents
   d. Paid by the **resident** _____ % of residents
   e. Paid by the **resident's family** _____ % of residents
   f. **Free dental care** from a volunteer dentist/hygienist _____ % of residents
   g. Don't know _____ % of residents
   h. Other _____% of residents (Please describe)
   _____

4. **Please rate your satisfaction** with the **quality of dental treatment** provided by dental professionals to residents of your facility: (*Please check only one box)*

   □ Very satisfied □ Somewhat satisfied □ Somewhat dissatisfied □ Very dissatisfied

5. Do you think **prompt treatment** of resident dental problems would prevent serious illness?

   □ Definitely Yes □ Probably Yes □ Probably No □ Definitely No

6. When a **resident has an oral/dental need/problem**, how is the situation handled (who is responsible for obtaining care)? (Please check only one box)

□ Your facility calls a private dentist

□ Your facility calls a family member

□ The resident facilities their own care

□ Other _____

7. **Please rate your satisfaction** with the **quality of dental treatment** provided by dental professionals to residents of your facility: (*Please check only one box)*

□ Very satisfied □ Somewhat satisfied □ Somewhat dissatisfied □ Very dissatisfied

Please continue on the next page

8. **Please rate how significant the following potential barriers** are to good oral health for residents at your facility. (*Mark ONE NUMBER in each row – please do not mark intermediate scores).*

Not significant barrier = 0

Highly significant barrier = 5

a) **Transporting** resident to dentist or hygienist	0	1	2	3	4	5
b) Willingness of general dentist to treat residents 1. At your facility	0	1	2	3	4	5
2. At private office	0	1	2	3	4	5
c) Willingness of special dentist (i.e. oral surgeon or denture specialist) to treat residents 1. At your facility	0	1	2	3	4	5

2. At private office	0	1	2	3	4	5
d) **Time constraints** on facility staff	0	1	2	3	4	5
e) **Apathy of** 1. Dental consultant	0	1	2	3	4	5
2. Facility administration	0	1	2	3	4	5
3. Facility staff	0	1	2	3	4	5
f) **Resistance** to getting dental care by 1. Resident	0	1	2	3	4	5
2. Resident's family	0	1	2	3	4	5
g) **Financial concerns** of resident or family	0	1	2	3	4	5

h) **Availability** of 1. Suitable dental treatment space	0	1	2	3	4	5
2. Suitable dental treatment equipment	0	1	2	3	4	5
Other: *(Please specify)* _____ _____	0	1	2	3	4	5

9. What percentage of your resident population is “private pay”? Approximately _____ %

Please continue on the next page

10. Please share **your thoughts** on how the oral health care of your residents could be improved. Check any of the following that you would like to see happen.

□ **Free training by a dentist or hygienist** for your staff on oral health care

□ **Dentist or hygienist you pay to provide training** for your staff on oral health care

□ **Dentist you pay** to visit facility and serve residents on a **regular schedule**

□ **Dentist the residents pay** to visit facility and serve residents on a **regular schedule**

□ **Dentist you pay** to visit facility and serve residents on **as needed**

□ **Dentist the residents pay** to visit facility and serve residents on **as needed**

□ **Volunteer Dentist** to visit facility and serve residents on **as needed**

□ **Hygienist you pay** to visit your facility and clean your resident's teeth **regularly**

□ **Hygienist the residents pay** to visit your facility and clean your resident's teeth **regularly**

□ **Hygienist you pay** to visit your facility and clean your resident's teeth **as needed**

□ **Hygienist the residents pay** to visit your facility and clean your resident's teeth **as needed**

□ **Volunteer hygienist** to visit your facility and clean your resident's teeth **as needed**

□ **Other** suggestions for improving oral health care in your facility/agency *(please specify)*

_____

_____

Thank you for your time in completing this important survey.

If the stamped return envelope has been lost, return this survey to Dr. Sheila Vandenbush, Michigan Department of Community Health, P.O. Box 30195, Lansing, MI 48909.

If you have any questions regarding this survey, please contact Dr. Sheila Vandenbush at 517-335-8388 or vandenbushs@michigan.gov

Screening Coordination Activities

MDCH Coordination Activities

ACTIVITY	DESCRIPTION	TIME
Survey Sampling	From a statistical sampling of all nursing facilities in Michigan, a list of 122 nursing home facilities was generated to conduct the Senior Smiles Screening Survey.	April -June 2009
Contacted the ALTCF Director	**Facility initial contact letters** introducing the survey and requesting permission was sent by MDHC to each facility director designated by the statistical sampling.	August 2009
Contact the selected nursing facilities either by mail, phone or in person	The facility will be sent the **facility introductory letter (Appendix A)** requesting him/her to participate in the Senior Smiles survey.	Aug 2009
Get the okay	The facility letter included a **fax back (Appendix B)** form that stated the facility's willingness to participate and provided information on the facility contact. This form was required before a screening date could be scheduled.	-Aug 2009
Identifying screeners	The MDHA President was contacted for her approval to contact dental hygiene component associations to solicit volunteers for the survey. Approximately 25 licensed dental hygienists have been recruited to participate in the survey, including the ones who assisted in the Count Your Smiles survey.	June 2009
Screening Training and Contracting	Five screener-training days will be established in various geographic locations. Supplies will be distributed and contracts will be signed.	Aug – Sept 2009

Determine an ALTCF facility contact person, collect facility info and fill in Nursing Facility Information Sheet	After receiving the permission from the director, the contact person will be called and the **facility information sheet (Appendix C)** will be completed.	Aug – Sept 2009
Send consent forms and the Facility Manger Survey to the ALTCF facility mangers prior to the screening date	Place the consent forms in an envelope with a letter requesting that the facility have each client aged 65 or over to complete. Place the ALTCF facility manager survey with a self-addressed stamped envelope.	September 2009
Confirm arrival of consent forms at the ALTCF	Make a call to the facility contact person and verify that the consent forms have been received. Restate the importance of gaining the consent of the residents or their guardians to participate in the screening.	September 2009
At training deliver screener's supplies.	Five to six residents will be surveyed and screened on the screening date. The screener will receive all other supplies at this date. The screener will also receive the facility information sheet. The sheet will state if they can call to schedule the screening date.	Sept-Oct 2009
Screener should notify MDCH of dates and times for screenings.	Screener should notify MDCH of screening dates and times so that the screener will receive the appropriate forms and supplies before the screening date.	September 2009
Two weeks before the screening date	At lest 2 weeks prior to the screening date, check with volunteer to ensure that he/she has faxed or e-mailed a list of needed supplies to MDCH, Oral Health Program at least *2 weeks prior to the screening* date.	Sept - Oct 2009
Final confirmation –Facility and Screener	Confirm the dates and preparation with the facility contact person and the screener..	October 2009

Thank you letter to the nursing facility and screener (and recorder, if applicable)	Send a thank you letter to the facility manager, screener and if applicable, the recorder.	Jan 2010
Evaluation	Send out Satisfaction Surveys/Evaluation Forms to facilities and volunteer hygienists to evaluate the project.	Jan 2010

Screener's Responsibilities (Prior to Screening Day)

ACTIVITY	DESCRIPTION	TIME
Attend Screener Training	Five training sessions will be geographically located across the state to accommodate screenings. Sign contract, training invoice, and receive initial supplies. Dates and locations to be announced.	Aug – Sept 2009
Recruit recorder or runner	Recruit another dental hygienist or assistant to act as the recorder or runner to assist with the screening.	Aug – Sept 2009
Contact designated contact person, provide dates and times for the Senior Smiles Survey screening. Arrange for staff in-service training, if the facility requests.	Schedule a screening date and time with the facility. If using a recorder or runner, confirm date and time with this person. Confirm with the nursing facility where the screenings will take place within the facility. If possible, visit the site prior to the screening to familiarize yourself and identify any potential problems. If a facility requests in-service training of staff, arrange a date and time. Contact the Oral Health Coordinator for resources.	Sept - Nov 2009
Verify Screening Supplies	Verify that there are sufficient supplies for the screenings. FAX or E-mail MDCH, Oral Health Program if additional screening supplies are needed at ***least 2 weeks prior to the screening.***	Sept- Nov 2009

Final confirmation – Nursing Facility and MDCH	Call the facility to verify the dates and insure that everyone is prepared for screening day and notify MDCH of screening date.	Sept - Dec 2009
Thank you letter to the facility	Send a thank you letter to the facility manger. This is optional, MDCH will be sending thank you letters, but it would be nice for them to hear from the screener too.	Jan 2010
Success Stories	If you have any human interest stories, please keep track of these and submit to the Oral Health Program in writing. Please note that any photographs taken of participants or staff must have Consent to Photograph Release refer to appendix).	Jan 2010

Screener's & Recorder's Activities – ON SCREENING DAY

- Arrive at the screening site at least 30 minutes before the first scheduled screening.

- Check-in at the facility main office. Set up your supplies for the screening at the predetermined area or the area that will work best for the comfort of the residents. Obtain a list of residents to be screened on that day. Consent forms must be collected prior to proceeding with screening. If the resident is not able to sign the form, the legal guardian must sign the screening consent form.

  Each resident should have their own signed consent form. Review the demographic data on the consent form and complete missing items if possible. ***Make sure that the resident or legal guardian has provided positive consent***. Explain to the resident about the process of screening and the reason for it. Interview the resident first to establish a patient rapport and fill out Oral Health Survey form. Then, screen the resident and complete the screening form. Before you go on to the next resident, make sure that you staple or clip the screening form to the consent form for each resident screened.

- The runner, if available, will bring residents to the screening site. If the facility has determined that it would be better for the residents to stay in their rooms for the screening, then the screener will go in the resident's room. The recorder will write down the results of the screening exam.

- Upon completion of the survey and the screening, provide each resident with a electric toothbrush and/or a denture brush, whichever is applicable.

- When finished for the day, stop by the main office and thank the staff for helping with the Senior Smiles Screening Survey. Take the garbage bag along with you to be disposed of.

Screener's Activities – AFTER SCREENING DAY

Activity	Description	Date
Receive completed screening data forms	Collect all the screening forms and make sure that the consent forms are stapled or clipped together with the screening form for each resident screened. Make sure that the screening form ID number assigned to the resident matches the ID number on the consent form. Be sure to put your assigned Examiner number on the screening form With the Permanent Marker – write the name of the resident who receives the toothbrush or denture brush.	Sept – Dec. 2009
Data Reporting /Billing & Evaluation Sheets	Mail the following within 5 days of completion of the screening: • Billing Sheet for Screening (Provided to the screener during the Senior Smiles Training and Calibration Session. • Data Reporting & Evaluation Sheet (Appendix • Completed interview forms (Appendix F), screening forms (Appendix G) and the consent forms (Appendix E) stapled or paper clipped	Sept 2009 – Jan 2010

Return Supplies	If you have any remaining supplies, send left-over supplies to the Oral Health Program. Because resources are limited, we are requesting that the flashlight, gloves if over ½ a box, and the laminated screening form be mailed to the program at the address listed on the front of this manual. If items cannot be mailed or you are unsure what needs to be returned, contact Dr. Sheila Vandenbush for arrangement for pick-up.	Jan 2010

Supplies

<u>Given to Volunteer at Training</u>

Screening Forms

- Black pen and black permanent marker
- Dental referral notification letter after screening
- Penlight/mini-flashlight

- Gloves

- Paperclips
- Antiseptic hand cleaner
- Disposable mirrors
- Tray covers
- Cavi-Wipes disinfectant
- Cotton tip applicators

- 2 x 2 Gauze Squares
- Garbage bag (for trash)

- Yellow Envelope (to return screening forms)

- Box to package all supplies to screener

- Electric toothbrushes and denture brushes

- Electric toothbrush for the Facility Manager

- Stim-u-dents

Sent to the Facility

- Consent Forms
- Introduction Letter
- Yellow Envelope (to collect consent forms)
- Facility Manger Survey and self- addressed envelope
- Photograph Consent Form

MDCH Contact Information

Patti Ulrich	OR	Dr. Sheila Vandenbush
Michigan Department of Community Health		Michigan Department of Community Health
Oral Health Consultant		Oral Health Director
220 West Garfield		109 W. Michigan Avenue
Charlevoix, MI 49720		Lansing, MI 48913
Tel: (231) 547-7677		Tel: (517) 335-8388
Fax: (231) 547-1164		Fax: (517) 355-8294
pattiulrich@hotmail.com		vandenbushs@michigan.gov

Oral Health Screening Form:

Michigan Department of Community Health/ Oral Health Program

SENIOR SMILES! SURVEY ADULT ORAL HEALTH SCREENING FORM

Screening Date: _____ Site: _____Screener: _____Patient ID # _____

Gender: M F **Patient Age:** _____ (in years)

Race:

□ White □ Hispanic □ Black/African American

□ Asian □ Native American/Pacific Islander

□ American Indian/Alaska Native □ Unknown

□ Other: _____

Edentulous: (3 or more missing teeth in 1 arch) a. **Y** b. **N**

Maxillary Full Partial

Mandibular Full Partial

Dentures: **Y** **N** Full (Maxillary Mandible) Partial (Maxillary Mandible)

Function of dentures (Max): None Minimal Adequate Unknown

Function of dentures (Mand): None Minimal Adequate Unknown

Soft Tissue Lesions: **Y** **N** **Location: _____**

Xerostomia: **Y** **N**

Gingivitis □ **Excellent 0** □ **Good .3 - .4** □**Fair .5 - .6** □ **Poor .6 – 1** □ **N/A**

	#2-3	#8-9	#13-14	#18-19	#24-25	#30-31
Bleeding	0 1	0 1	0 1	0 1	0 1	0 1

If the teeth are not present, use the adjacent teeth

Y= 1 point **N = 0 point**

<u>Total bleeding index:</u> _____ **=** _____

Number of teeth scored = 6

(Continue to next side)

Oral Hygiene Index:

□ **Excellent 0** □ **Good 1.1 – 1.2** □ **Fair .7 – 1.8** □ **Poor 1.9 – 3.0**

Total debris score: _____ Total calculus score: _____

	#3 B	#8F	#14 F	#19L	#24L	#30L
Debris	___	___	___	___	___	___
Calculus	___	___	___	___	___	___

(0= no debris/calculus; 1 = soft debris/calculus not more than 1/3 of tooth surface;

2= soft debris/calculus = > 1/3 of the tooth surface but not more than 2/3 of the tooth surface; 3 = soft debris/calculus covering more than 2/3 of the exposed tooth surface)

<u>Total debris scores</u> **<u>Total calculus scores</u>**

Number of teeth scored = _____ **Number of teeth scored = _____**

Untreated Caries:

Coronal Caries □ **None** □ **2-4 teeth** □ **5-8 teeth** □ **> 9 teeth**

Root Caries □ **None** □ **1-2 teeth** □ **3-5 teeth** □ **>6 teeth**

Treatment Urgency Needed:

□ Code 0: No Obvious Problems

□ Code 1: Needs Restorative Care

□ Code 2: Urgent Care Needs

REFERRAL Y N

Additional conditions or notes:

Senior Smiles! Survey Oral Health Interview Questions

Your response will remain confidential. Our purpose is solely educational.

1. **Would you rate your overall oral health (that is, the condition of your teeth and gums) as being:**

   If you have no teeth, then the rating is for your gums and other oral tissues.
   □ Excellent □ Good □ Fair □ Poor

2. **Are you able to clean your mouth?**
   □ Yes, without help □ Yes, with help □ No □ Don't know/Not sure

3. **Are your teeth or dentures brushed daily?**

   □ Yes □ No □ Don't know/Not sure

   If yes, how many times per day? *Check only one box.*
   □ 1-2 times per day □ 3-4 times per day □ 5 or more times per day

   If No, why not?_____

4. **Overall, are you satisfied with: (whether you have natural teeth or have dentures)**
   a. Your ability to **chew any foods** that you want? □ Yes □ No □ Don't know/Not sure
   b. Your ability to **speak clearly?** □ Yes □ No □ Don't know/Not sure
   c. The **appearance of your teeth?** □ Yes □ No □ Don't know/Not sure

5. **Do you have any current dental problems?** □ Yes □ No □ Don't know/Not sure

6. **Do you have any pain in your teeth, gums, or jaws?**

   □ Yes □ No □ Don't know/Not sure
   If yes, is the pain:
   □ Most of the time □ Occasionally □ Only when: _____

   Pain indicates pain in the teeth, gums, oral tissues, jaws, TMJ or oral musculature.
   If NO, skip to Question #8.

7. **How long has your pain been present?**

□ 1 to 2 weeks or less □ 1 to 3 months
□ 2 weeks to 1 month □ More than 3 months
□ Don't know/Not sure

8. Regarding your gums:

a. Do they bleed with you brush or floss? □ Yes □ No □ Don't know/Not sure
b. Are they red, tender or swollen? □ Yes □ No □ Don't know/Not sure

9. Do you frequently have bad breath? □ Yes □ No □ Don't know/Not sure

10. Do you wear dentures or partials? □ Yes □ No □ Don't know/Not sure
If yes, skip to Question #13

11. Do you regularly floss or clean between your teeth?

□ Yes □ No □ Don't know/Not sure

If yes, how many times per day? *Circle only one answer.*
□ 1-2 times per day □ 3-4 times per day □ 5 or more times per day

If No, why not?_____

12. Are your teeth loose or separating? □ Yes □ No □ Don't know/Not sure

Persons with Dentures and Partials

13. Do you wear partials and/or dentures? □ Yes □ No □ Don't know/Not sure

a. Do you *wear* both upper and lower partials and/or dentures?
□ Upper partial and/or denture only
□ Lower partial and/or denture only
□ Both upper and lower partials and/or dentures
□ Don't know/Not sure

b. How often do you wear your partials and/or dentures?
□ less than 2-4 hours per day □ 4-8 hours per day
□ both day and night (24 hours per day)
□ only when eating □ only when I have visitors
□ other: _____

c. If you don't wear your partials and/or dentures, why not?
_____
_____

14. How do you feel your dentures fit?

□ Excellent □ Good □ Fair □ Poor

15. Do you have any sores or ulcers in your mouth or on your gums that you feel are caused by your dentures? □ Yes □ No □ Don't know/Not sure

If yes, how often do you have them?
□ Frequently □ Sometimes □ Rarely □ Don't know/Not sure

Dental Services Utilization

16. Do you have a dentist? □ Yes □ No □ Don't know/Not sure

17. When was your last visit to a dental office?:

□ Less than 6 months □ 6 months - up to 12 months □ Over 5 years
□ 12 months -24 months □ 3-5 years □ Unknown

a. Did you have a mobile dentist or dental hygienist provide dental care to you in this facility? □ Yes □ No □ Don't know/Not sure

If yes, was it a □ Mobile dentist? □ Mobile dental hygienist?

b. What was the purpose of the most recent visit to the dentist? *Check only one answer – the main reason you have visited the dentist?:*
□ Prevention/Cleaning □ Pain/Dental Emergency/Extraction
□ Restorative/ Fillings □ Crowns/Bridges
□ Dentures/Partial Dentures or Repair □ Root Canal/Endodontics
□ Gum Therapy/Periodontal □ Other: _____

18. If you *have not* visited a dentist in more than 1 year, what is the main reason? *Check only 1 answer.*
□ Does not apply, have been to the dentist □ Cannot get to a dentist's office
□ Fear, apprehension, nervousness □ No reason to go
□ Dislike going □ Cost
□ Other: _____

19. Do you have dental insurance: □ Yes □ No □ Don't know/Not sure
If yes, □ Medicaid? □ Private insurance?

20. Would you rate your overall general health as being:
□ Excellent □ Good □ Fair □ Poor

21. Are you diabetic? □ Yes □ No □ Don't know/Not sure

22. Are you taking any medication now? □ Yes □ No □ Don't know/Not sure

23. Do you use tobacco products?

a. □ Currently □ In the past □ Never □ Don't know/Not sure

b. How long did you use tobacco products? ____ years □ N/A □ Don't know/Not sure

c. What type of tobacco? □ Cigarette □ Cigar □ Pipe □ Chew □ N/A

24. Do you drink alcohol? □ Yes □ No □ Don't know/Not sure

If yes, how many drinks do you have per week? 0-1 2-5 6-10 11-14 15+

24. Do problems with your hands, shoulders or arms prevent you from cleaning your Teeth as well as you would like? □ Yes □ No □ Don't know/Not sure

Comments: _____

_____

_____

Appendix B: The Calibration Session Evaluation Form

Senior Smiles! Calibration Session Evaluation Form

Instructions: Please help us evaluate your overall experience at today's calibration session. On a scale, 1-5, please circle your response for every question. Thank you.

5-Strongly agree

4-Agree

3-Undecided

2-Disagree

1-Strongly disagree

Today's date:

1) Did the speaker(s) achieve the stated objectives?

1 2 3 4 5

2) Was the presenter(s) knowledgeable?

1 2 3 4 5

3) Was the presenter(s) well-prepared?

1 2 3 4 5

4) Did the presenter(s) use effective teaching methods (e.g., audiovisuals, handouts, etc.)?

1 2 3 4 5

5) Did the presenter(s) respond to questions adequately/clearly?

1 2 3 4 5

6) Did the course meet your expectations?

1 2 3 4 5

7) Did the calibration session increase your understanding of the Senior Smiles survey conduct?

1 2 3 4 5

8) Was the calibration manual helpful to you? Please provide reasoning for your answer.

1 2 3 4 5

Comments:

9) Do you have any further questions in regards to the survey conduct?

Comments:

Appendix C: The Calibration Session Feedback Form

Feedback Session Form

1. From your perspective, does the manual provide the dental hygienists with a clear introduction about the Senior Smiles survey?

____YES ____NO

Comments:

2. Are the guidelines on infection control clear for the dental hygienists?

____YES ____NO

Comments:

3. Does the Senior Smiles protocol provide the dental hygienists with rationale and helpful tips on conducting the resident interview?

____YES ____NO

Comments:

4. From your perspective, is the overview of the open-mouth screening sequence and the associated indices clear for the conduct of the open-mouth screening?

____YES ____NO

Comments:

5. From your perspective, do screener's responsibilities prior, on and after the screening day seem attainable and clear?

____YES ____NO

Comments:

Appendix D: The Calibration Session Pre-Test/Post-Test

Calibration Session Pre-Test/ Post-Test

1. The Senior Smiles survey is…

a) An interviewing tool to gather state data from the managers of the alternative long-term care facilities (ALTCF)

b) A screening assessment of Michigan ALTCF residents to gather data describing the oral health status of elderly population

c) A screening tool of Michigan ALTCF residents to gather data on the oral care regimen performed by the residents and their caregivers in Michigan alternative long-term care facilities

2. The advantages of the nursing home resident interview are…

a) Non-biased and more open communication channels

b) To develop rapport and gain the widest range of data

c) There are none: these patients have difficulties communicating face-to-face

3. Modified Eastman Interdental Bleeding Index, used during open-mouth screening in the Senior Smiles survey, will assess…

a) Patient's oral hygiene status in the interdental areas by the presence or absence of plaque

b) The presence of pus and inflammation in the interdental areas

c) The presence of inflammation in the interdental areas by the presence or absence of bleeding

4. The dental hygienists will be able to use periodontal probes and explorers during the open-mouth screening.

____TRUE ____FALSE

5. During an open-mouth screening, the dental hygienists will be responsible for assessing all of the following, except…

a) The presence of subgingival calculus

b) Xerostomia

c) Untreated caries

d) Edentulism

6. The dental hygienists will be responsible for making sure that the resident or legal guardian has provided positive consent prior to conducting the survey.

____TRUE ____FALSE

7. The dental hygienists are required to attend at least two calibration sessions prior to conducting the survey.

____TRUE ____FALSE

8. If indicated, dental hygienists will give referrals for a follow-up treatment to the nursing home residents following the screening.

____TRUE ____FALSE

9. Following the screening, dental hygienists will instruct all facility caregivers on proper oral care procedures for the residents.

____TRUE ____FALSE

10. The dental hygienists participating in the Senior Smiles survey will be responsible for analyzing obtained data, in cooperation with Michigan Department of Community Health.

____TRUE ____FALSE