

**Mouth Care Matters:  
Prepare to Care Oral Health Specialty  
Training Evaluation  
Executive Summary**

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## Preface

Participants in Mouth Care Matters (MCM) Oral Health Specialty training were Direct Care Professionals (DCPs). The title direct care professionals (DCPs) is used in this report because we found it to be generally preferred by those in the field although many job titles are used such as direct support professional, supported community living worker, home health aide, direct care worker, universal worker, hospice aide, personal assistant and certified nursing assistant. DCP's are paid to provide supportive services and care for those experiencing illness, disability or other health conditions. DCPs work in homes and hospice agencies, hospitals, nursing homes, group homes, assisted living, adult day services, hospice agencies and other community-based settings.

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## Executive Summary

### Introduction

Mouth Care Matters (MCM) is one of three major initiatives of the Lifelong Smiles Coalition, led by Delta Dental of Iowa Foundation (DDIAF), and intended to increase access to and improve oral health care of older Iowans who are homebound or living in nursing homes. MCM was administered by Iowa CareGivers with financial support from the DDIAF. Other financial support was provided by Mid-Iowa Health Foundation, Iowa Department of Public Health through a Centers for Disease Control and Prevention Cooperative Agreement (#DP13-1307), and in-kind contributions from Des Moines Area Community College (DMAACC), Iowa Dental Hygienists' Association, The University of Iowa Colleges of Dentistry and Nursing, and The University of Iowa School of Social Work, National Resource Center for Family Centered Practice and many other stakeholders.

The focus of the evaluation presented in this report is on the Oral Health Specialty Curriculum designed for those who work in direct care and service. Specifically, did the curriculum achieve the intended result of providing Direct Care Professionals (DCPs) with practical content, was the knowledge retained and did that knowledge transfer to practice in the work environment? DCPs are formally defined as individuals who provide supportive services and care to people experiencing health conditions, illnesses, or disabilities and are paid for such services. They may work in home or community-based settings, hospice agencies, hospitals, nursing homes, group homes, assisted living, adult day services and other locations. They have many job titles, such as direct support professional, supported community living worker, home health aide, direct care worker, and universal worker. The umbrella term also includes other job titles like hospice aide, personal assistant, and certified nursing assistant.

The Oral Health Specialty Curriculum was developed and written to be the first specialty training added to the state's Prepare to Care curriculum. Prepare to Care, resulted from recommendations of a legislatively-directed and Governor-appointed Direct Care Worker Task Force. Two key recommendations of the Direct Care Worker Task Force were to: 1) develop a standardized competency-based training curriculum; and 2) provide those in direct care/service opportunities to specialize in various areas including oral health. Iowa was one of six states to receive a Health Resources and Services Administration (HRSA) sponsored Personal and Home Care Aide State Training (PHCAST) Demonstration Program authorized

under Section 5507(a) of P.L. 111-148, the Patient Protection and Affordable Care Act, awarded to the Iowa Department of Public Health (IDPH), for the purpose of developing and testing the Prepare to Care curriculum. The Mouth Care Matters (MCM) grant, awarded to Iowa CareGivers by Delta Dental of Iowa Foundation (DDIAF), was for the purpose of developing and testing the first specialty under the state-recognized Prepare to Care curriculum, in the area of oral health. Other DDIAF grantees include the Iowa Department of Public Health's I-Smile Silver program, and the establishment of the Office of Education and Training through the University of Iowa's College of Dentistry. A cross site evaluation was also conducted by California-based Harder+Company.

## **Training**

An instructor training was developed and taught by the curriculum developers. The state's oral health competencies for DCPs require the training be provided by a dentist or dental hygienist. For the purposes of this project, 23 dental hygienists completed the two-day instructor training and at the time of this report two have moved out of state, and 13 of the 23 have had the opportunity to teach at least one MCM class. Two of the instructors are I-Smile Silver coordinators. Pre- and post-tests were used and qualitative evaluations were collected. Sixty-four (64) direct care professionals attended one of six two-day trainings held between September 22nd and October 23rd, 2015. Trainings were held on Des Moines Area Community College (DMACC) campuses in Ankeny and Boone, two sessions respectively, and single sessions in Carroll and Newton.

## **Method**

To evaluate the effectiveness of the curriculum for advancing knowledge, tests were administered before and after training (pre-test, post-test design). The tests were constructed by the curriculum developers to measure key content. To ensure anonymity for participant tests, an envelope was provided for each class and tests were sealed in the envelope in view of all the participants before mailing to the evaluation team.

In addition to the knowledge tests, on-site observation was employed to measure the impact of the training by comparing observations before training to those after training at two case study locations (Ember, C. & Ember, M., 1986; Glaser, B. & Strauss, A., 1967; Rubin & Babbie, 2008; Spradley, 1979, 1980). Participant observation studies have been conducted in a wide variety of settings ranging, for example, from studies of migrant populations (Hendricks &

Richardson, 1982) to homelessness and alcoholism (Spradley, 1970), from oil industry effects on native villages in Alaska (Jorgensen, McNabb, McLeary & Richardson, 1987) to workplace behavior including employee theft (Hollinger and Clark, 1983). The method provides a more in depth understanding of settings and behavior within those settings which is important for the current evaluation for providing an understanding of the impact of training on day-to-day practice among DCPs.

## **Results and Findings**

Test results showed significant knowledge gain among participants. There were three areas in particular, where the level of knowledge was relatively low and little change was found suggesting some improvement in the curriculum, its delivery or the test may be needed. A passing score on the test of 70 percent was set by the developers which equates to 17 or more correct of 24 items. Of 64 participants, 41 (64 percent) achieved a passing score of 70 percent correct.

An important component of the evaluation is the utilization of knowledge in the workplace by those who receive training. The follow-up observation in case study facilities in which workers were trained is key to understanding the translational aspects from classroom to practice with the population served. Knowledge was retained by participants six months following the training. For more experienced workers the curriculum was considered a refresher from their original training and their experience on the job; however, these workers also reported learning new techniques and skills as well as how to use new tools or tools in different ways. A barrier to using skills from the training is that some of the tools used in training are not available at the workplace.

During the observations it was found that more attention is being paid to oral health and an anecdotal report by one dentist suggests improvement in oral health of patients in the facilities in which staff were trained. All of those participating in the on-site evaluation recognized the need for ongoing efforts to make oral health a priority and both facilities are involved in activities to sustain a focus on oral health in the routine care of their patients. Some of these activities include ongoing assistance from Iowa CareGivers in planning and conducting organization-wide oral health campaigns which included mirror clings, table tents, and in-services for all staff, residents, and family caregivers and to reinforce what DCPs learned in the training and increase overall awareness of the importance of oral health.

Ongoing training, and training more specific to experience level were both reported to be needed for sustainability. Organizational support is needed from within agencies by those employed as administrators, supervisors and directors of nursing; however, outside support (e.g. technical assistance and support as is currently underway through Iowa CareGivers) was also indicated to be critically important for sustainability.

## Recommendations

There is growing evidence of the importance of oral health in caring for older adults in nursing homes and in-home care settings. Poor oral health has been associated with systemic diseases including pneumonia and respiratory infections. The current evaluation found significant gains in knowledge about oral health among DCPs trained through the MCM project.

The evaluation also underscores the need, not only to continue to evaluate the effects of training for direct care workers, but also to evaluate how the results of training translate into practices in the workplace, especially nursing homes and home health. The following recommendations are provided as specific steps MCM could take to improve oral health care in nursing homes and the homes of individuals served.

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- Review and revise the curriculum, training, testing, or measures as indicated from analysis of results; this includes training which takes into account experience level and attention to the lack of availability of some tools in the workplace.
- Conduct focus group discussions with MCM instructors to discuss evaluation findings and recommended changes to curriculum, test, and alternative testing strategies.

- Continue to offer training and collect pre- and post-test data to measure knowledge gain comparing the evaluation results reported here to those of future trainings for continuous quality improvement purposes. Test other training delivery methods to improve DCP access (e.g., online, apps).
- Continue to provide technical assistance to the existing case study sites to help overcome institutional barriers (difficulty in applying new skills, tools used in training not available in their worksite; some techniques taught not consistent with what they had been trained within their work settings; materials in the workplace are not consistent with what was used in training).
- Further support for sustainability could be achieved through developing cost analysis approaches to show cost-effectiveness associated with hospital readmissions and other areas of quality care before and after training.
- Provide opportunities for case study sites to enroll additional DCPs in oral health specialty training to achieve the critical mass needed to change the organizational culture so that oral health is a higher priority.
- Conduct a longitudinal study of changes related to the number of aspiration pneumonia cases, hospital readmissions and reasons for readmissions at case study sites to demonstrate any impact in these areas of quality care.
- Conduct surveys (based on the pre-test) of all staff in nursing homes or home care to determine a general baseline of knowledge and the secondary impact of training that may have occurred.
- Explore the feasibility of developing more standardized oral health protocols in all health and long-term service settings.
- Utilize findings from this evaluation and additional data gathered (e.g., other local studies related to oral health) to inform strategies for future work and to address oral health based on the growing body of evidence of the importance of oral health care for general health and what the most effective practices are currently.
- Explore the feasibility of developing more standardized oral health protocols in all health and long-term service settings.