Breaking Down Barriers to Oral Health for All Americans: The Community Dental Health Coordinator

A Statement from the American Dental Association
October 2012
That tens of millions of children and adults lack adequate access to dental care — many of them suffering with untreated disease that could have been prevented — is nothing short of deplorable. But there is cause for hope in the mounting awareness of this oral health crisis and the attendant demands for solutions.

To the extent that solutions are on the table — and there are many under discussion — they tend to revolve around treating disease that has already occurred. This is of course critical. But it also is flying into the powerful headwind of a pernicious economic downturn. Dental public health programs are hard pressed to maintain existing funds, let alone secure new ones. While by no means without cost, prevention and oral health education — which really is prevention at its most fundamental level — are dramatically less expensive than surgical intervention, as measured in both financial and human terms.

It was with that in mind that the ADA set out eight years ago to design a new model for bringing better oral health to underserved communities. The Community Dental Health Coordinator is designed to address barriers to oral health that go beyond poverty. People in inner cities, remote rural areas and Native American lands also face obstacles posed by education, language, culture, geography and other factors. Community Dental Health Coordinators come from these same communities. They understand the problems and are uniquely equipped to provide solutions. They teach families how to take care of their teeth and gums to prevent disease. They provide basic preventive services like fluoride treatments, dental sealants and simple cleanings. When people need more complex care, CDHCs help them secure and keep appointments with dentists, and they make sure that patients understand how to prevent disease from recurring.

The ADA has devoted significant financial and human resources to making the Community Dental Health Coordinator a reality, because we believe in the model and the health care philosophy it embodies. While we have yet to complete a formal evaluation of the pilot project, the work that CDHCs are doing in the field shows great promise. They are located across the spectrum of the communities in which they were trained to work, serving patients ranging from preschoolers to elders. They personify the ADA’s commitment to breaking down barriers to oral health for all Americans.

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President
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In 2006, the ADA initiated a pilot project to educate, train and deploy a new type of community health worker, one with a focus on patient education, disease prevention and patient navigation. As of September 2012, the Community Dental Health Coordinator (CDHC) pilot project has graduated 18 students, who are now working in such underserved areas as remote rural areas, inner cities and American Indian communities. The third and final cohort of CDHC students will complete their training in fall 2012, by which time 34 community dental health coordinators will be working in the field.

With the education phase of the pilot project nearly done, the ADA has initiated a comprehensive evaluation of the CDHC curriculum and training program. The Association and state dental societies also are working to encourage state governments, the higher education community and the charitable and private sectors to begin funding and operating CDHC programs. Their doing so in sufficient numbers could effect marked improvement in the oral health of Americans who currently lack both adequate access to dental care and the knowledge that empowers people to take charge of their own oral health.

This paper examines the history of the ADA Community Dental Health Coordinator pilot project, including:

- Its underlying concept;
- The development of a comprehensive curriculum;
- Recruiting students;
- The roles of the participating organizations and institutions in the education and training process;
- How the project is being evaluated; and
- The results reportable at this stage in the project.
The success of community health workers (CHWs) in managing and improving the health of people in underserved communities is well documented. CHWs live in or are at least familiar with the unique health challenges facing the communities in which they work. They can link health care providers, social and community agencies and underserved populations in ways that promote healthy behaviors, prevent disease and help people get health care when they need it.

The Health Resources and Services Administration estimated that there were roughly 120,000 CHWs in the United States in 2005. The model has continued to gain momentum, as more communities utilize CHWs to improve public health through outreach and education. These workers are widely acknowledged as helping to reduce and eliminate health disparities. A 2002 Institute of Medicine report addressing the racial and ethnic disparities in health care stated that CHWs offer promise as a community-based resource to increase racial and ethnic minorities’ access to health care and to serve as a liaison between health care providers and the communities they serve. According to a 2009 American Public Health Association policy statement, “A growing body of research indicates the effectiveness of CHWs in improving the quality of care and individual health outcomes.”

The ADA Community Dental Health Coordinator model seeks to build on the CHW’s proven success by combining existing CHW modules with new components addressing oral health. CDHCs are not midlevel providers; they are not intended to take the place of dentists but, rather, to educate, prevent dental disease and connect patients to dentists who will provide treatment. The design of this position embodies organized dentistry’s belief that the nation will never drill, fill and extract its way out of its profound oral health disparities. So rather than focusing on surgical interventions, CDHCs provide the oral health education, prevention and patient navigation skills that are the nation’s best hope of stemming the tide of untreated oral disease.

An additional and singular aspect of the CDHC model is its maturity. CDHCs are trained in accordance with a specific, complete curriculum developed and refined over a period of six years.

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Prior to the CDHC pilot project, few CHWs are known to have had training in oral health, and fewer still (if any) were trained and authorized to perform routine preventive procedures or triage dental patients. With unmet oral health needs so widespread, the ADA has had no difficulty explaining the potential role of the CDHC to the public health community. Officials at federally qualified health centers (FQHCs) have been quick to recognize and incorporate this type of oral health expert into their teams to improve oral health through greater community outreach.

The CDHC curriculum is module-based. For the pilot program, every student must pass every module, including students who are dental assistants, expanded function dental assistants, dental hygienists or CHWs, to ensure consistency and a more accurate evaluation of the program. In the future, some students could test out of certain modules, reducing both educational costs and the time needed to deploy them. Existing CHWs would be outstanding candidates to do that.

Pilot Project History

In June 2004, the ADA Board of Trustees funded a task force to explore new workforce models as part of the Association’s ongoing efforts to improve the oral health of underserved populations. The Workforce Models Task Force assessed the adequacy of the current workforce to meet the needs of the underserved in rural, urban and Native American settings, and developed recommendations to address disparities in these communities.

The task force’s report set in motion a series of actions by the ADA House of Delegates over the next few years that led in 2006 to the funding (by the ADA Foundation) and development of the CDHC model training program, including a complete curriculum with implementation and evaluation guidelines.

A 2008 progress report to the House named as likely pilot sites the dental schools at the University of Oklahoma, where students would train to work in rural communities (populations ranging from less than 2,500 to 50,000); the University of California at Los Angeles (UCLA) in collaboration with Salish Kootenai College in Montana, targeting Native American communities; and the University of Michigan, to train students to work in urban communities. (Michigan eventually opted out of the program, and Temple University’s Kornberg School of Dentistry became the host institution for the urban track.) Rio Salado College, in Tempe, Ariz., was selected to provide the 12-month didactic portion of the CDHC curriculum.

In 2009 the ADA House voted to commit up to $5 million to support the CDHC pilot project and to evaluate the effectiveness of the CDHC model. Since that time, the ADA’s financial commitment to the CDHC program has increased to more than $7 million.

The project officially launched in March of that year with a kickoff meeting at the University of Oklahoma College of Dentistry. The kickoff was part ceremony and part celebration. It also provided an opportunity for ADA volunteer leaders, faculty and program directors from Rio Salado College, UCLA and the University of Oklahoma, ADA staff and, most important, the Cohort 1 CDHC students to interact both formally and informally. Later that month, those students began their 12 months of online coursework through Rio Salado. (The program at Temple University, the third training site, did not begin until the following year.)

Students entering the Native American track in Cohort 3 did so in conjunction with AT Still University’s Arizona School of Dentistry and Oral Health (ASDOH), rather than at UCLA. ASDOH was particularly well-suited to host the program. The school has the nation’s largest contingent of tribally enrolled American Indian Dental students, and boasts a 100 percent graduation rate. And all of ASDOH’s American Indian graduates practice in Native American Communities.
In 2010, Henry Schein, Inc., agreed to donate equipment valued at approximately $860,000 to support CDHC students’ education and training. The donation was significant not only for its size, but equally important, because it demonstrated how the private sector could participate in a health care education model. Schein was particularly attracted to attributes of the CDHC model that extend beyond health care — that it provides good jobs to people who otherwise might not get them, and that in addition to helping people in their home communities attain good oral health, CDHCs also serve as role models.

In October of that same year, the first cohort of CDHC students completed training and began working in clinics, FQHCs, American Indian communities and other settings. Cohort 2 students completed their training in fall 2011; this cohort included the first group of students in the urban track at Temple University. Cohort 3 students are completing their training in fall 2012.

At that point, the educational phase of the ADA CDHC pilot project ends. But the Association’s involvement and commitment does not. The final phase of the pilot project will focus on evaluating the effectiveness and viability of the CDHC model and on providing technical assistance to other public and private entities who are interested in creating CDHC programs.

Community Dental Health Coordinator Education and Training

CDHCs come from or are trained to interact, with cultural competence, in the dentally underserved communities in which they work. They understand the people, language, and barriers to oral health in those communities; in many cases they already know the people with whom they will work. CDHC training focuses on community outreach, coordination of care, educational and social interventions in the community, and prevention.

The CDHC curriculum is designed to inculcate seven core competencies.

1. Developing and implementing community-based oral health prevention and promotion programs.
   a. Supporting water fluoridation
   b. Collaborating with community leaders to develop oral health initiatives
   c. Collaborating with such organizations and other providers as Women, Infants and Children Programs; Head Start; mental health organizations; healthy baby initiatives; long-term care providers; hospices; senior citizen centers; substance abuse clinics; voluntary health agencies; chambers of commerce; local businesses, school boards and others

CDHCs come from or are trained to interact, with cultural competence, in the dentally underserved communities in which they work.
2. **Knowledge and skills required to prioritize population and patient groups.**
   a. Identifying potential emergent dental care needs
   b. Communicating with supervising dentists
   c. Revising patient screenings and assessments based on supervising dentists’ instructions
   d. Developing referral recommendations for patients needing care from dentists
   e. Developing oral preventive recommendations for approval by supervising dentists

3. **Knowledge and skills required to provide individual preventive services based on approved plans.**
   a. Oral hygiene education
   b. Tobacco cessation
   c. Dietary counseling
   d. Fluoride applications
   e. Sealant applications
   f. Coronal polishing
   g. Scaling for periodontal Type I patients in community settings

4. **Knowledge and skill required to collect diagnostic data.**
   a. Medical and dental histories
   b. Dental health screening and assessment (data collection) via:
      i. Visual inspection of the oral cavity for carious lesions (cavities) and other hard tissue anomalies
      ii. Visual soft tissue inspection
      iii. Taking radiographs (x-rays) as appropriate
   c. Monitoring vital signs
   d. Dental charting

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### Seven Core Competencies

1. **Developing and implementing community-based oral health prevention and promotion programs.**

2. **Knowledge and skills required to prioritize population and patient groups.**

3. **Knowledge and skills required to provide individual preventive services based on approved plans.**

4. **Knowledge and skill required to collect diagnostic data.**

5. **Knowledge and skill required to perform a variety of clinical supportive treatments.**

6. **Knowledge and skill required for administrative procedures.**

7. **Knowledge and skill required to temporize dental cavities in preparation for restorative care by a dentist.**

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Dr. Suzie Beavers demonstrates coronal polishing to Cohort 1 trainees Kimberley Cave, Courtney Roberts, and Melissa Tyler, using Kathy Matthews as a patient.
5. Knowledge and skill required to perform a variety of clinical supportive treatments.
   a. Practicing infection and hazard control consistent with published professional guidelines
   b. Preparing tray set-ups
   c. Preparing and dismissing patients
   d. Applying fluoride agents
   e. Processing and storing digital radiographs
   f. Providing oral health instruction
   g. Maintaining accurate patient treatment records
   h. Maintaining operatory area and dental equipment in a community setting
   i. Helping manage medical and dental emergencies
   j. Administering basic life support
   k. Cleaning removable oral appliances and prostheses in community settings

6. Knowledge and skill required for administrative procedures.
   a. Collaborating with community partners including phone management and communication skills
   b. Maintaining supply inventory
   c. Controlling appointments and managing recall systems
   d. Operating business equipment, including computers
   e. Completing and processing appropriate reimbursement papers and online forms.
   f. Facilitating basic legal and regulatory compliance (e.g., HIPAA, informed consent)

7. Knowledge and skill required to temporize dental cavities in preparation for restorative care by a dentist.
   a. Using hand instrumentation to remove debris and prepare teeth for temporary restorations (fillings)
   b. Placing temporary restorations such as glass ionomers

Curriculum Outline

The CDHC curriculum was developed by experts in their respective fields to meet the competencies listed above. The didactic components of the curriculum are designed for online delivery, accompanied by a series of in-person sessions for student skill development and evaluation. Rio Salado College developed the community health worker–related courses and has managed the didactic components during the pilot project, a role the institution hopes to expand greatly going forward. The community health worker competencies have since been revised based on feedback received from program participants. The ADA developed the dental–related elements. Curriculum elements include:

- Introduction to Dentistry
- Dental Health Screening and Classification
- Prevention of Dental Caries
- Prevention of Periodontal Disease
- Prevention of Oral Cancer
- Dental Care Finance
- Palliative Care
- Interviewing Skills for Dental Health Advocates
- Oral Health Communication
- Dental Health Legal and Ethical Issues
- Dental Health Advocacy and Outreach
- Community Dental Health Coordinator Internship

Curriculum materials include lesson syllabi, faculty guides, PowerPoint presentations and scripts, performance tasks, evaluations and examinations. Course descriptions and overviews are available for Rio Salado College’s courses.

Status of CDHC Students

Cohort 1 graduates from UCLA are now working in their respective tribal or Indian Health Service clinics in Wisconsin, Minnesota and Arizona. Some of the CDHCs from the University of Oklahoma are working in rural FQHCs in that state, serving as both CDHCs and expanded function dental assistants (EFDAs). One of them now serves as Dental Department manager.
Cohort 2 completed training in fall 2011. A CDHC who trained at Temple works two to three days per week at an inner-city Philadelphia health center. He contributes to the center’s outreach efforts for its diabetes program, HIV clinic and the OB-GYN and pediatrics departments. He educates diabetes patients about the relationship between that condition and oral health, and performs oral screenings and radiographs. Seeking to expand the center’s community outreach, he has worked with his supervising dentist and the center’s director of operations to establish a relationship with a local church to conduct screenings and provide oral health education to parishioners.

Oklahoma’s Cohort 2 CDHCs are all working for American Indian clinics in Oklahoma towns with fewer than 10,000 residents. One sits on the board of the health center where she works.

Two CDHCs from the UCLA program are working in Native American communities in northern California. Their work thus far includes oral examinations, radiographs, coronal polishing, applying fluoride varnish and helping patients secure appointments. They have participated in various outreach efforts, such as conducting home visits to administer fluoride treatments for pre-screened children. They also have worked with juveniles in correctional facilities, foster children and transient and homeless populations.

Oklahoma’s Cohort 2 CDHCs Melissa G. Welch, Misty R. McClain and Angela L. Black received framed representations of their respective tribal seals.
Pilot Project Evaluation and Outcomes

With the completion of the CDHC Pilot Project’s educational phase, the ADA is focusing on the design and execution of a comprehensive project evaluation intended to answer these questions:

1) Does the presence of a CDHC contribute to increased access to oral health care and improved oral health care outcomes?

2) How can the CDHC education and training model be improved post pilot?

3) Is the CDHC model financially sustainable?

The following are select outcomes based on the activities of CDHCs in a variety of practice settings.

Based on the broad recognition of community health workers as positively affecting the health of underserved people, the CDHC should quickly gain acceptance among the public health community. The model can adapt to many practice settings, from clinics to schools to home visits to institutions, making it a potential asset across the spectrum of delivery sites.

One CDHC began working in 2011 in a single-dentist practice in a remote, rural location. A comparison of the practice’s productivity before and after the arrival of the CDHC shows:

- **Billable Procedures**: 1,066 in 2010; 2,307 in 2011
- **Total Care Value of Services Provided**: $91,399 in 2010; $231,551 in 2011
- **Services within CDHC Scope of Practice**: $8,470 in 2010; $25,203 in 2011
Over a nine-month period, working only one day per week, one CDHC provided services to 114 patients in a rural tribal community health center’s diabetes clinic.

- Billable services provided by the CDHC to diabetic patients: $13,922
- Billable services provided by other dental personnel to the same patients: $31,878
- Average value of care per patient: $402
- Overall rate of missed appointments clinic-wide: 18%
- Rate of missed appointments for diabetes clinic patients: 0%

Elementary school outreach program at the same clinic as above: Over a seven-month period, 201 children received care at the school-based program. The CDHC referred children needing care beyond what could be provided at the school to the clinic.

- Billable services provided at the school: $41,613
- Billable services provided at the clinic: $88,886
- Average value of care per child: $442

Pre-school outreach at a Midwest Indian Health Service clinic: Over a 10-month period, 240 children received care at HeadStart and daycare centers, or at the clinic.

- Billable services provided at outreach locations: $105,501
- Billable services provided at the clinic: $51,951
- Average value of care provided per child: $440

Looking Forward

Even in advance of a comprehensive evaluation, these results are extremely promising, and interest in the CDHC model is growing. Rio Salado College has licensed the curriculum and is prepared to offer the online coursework to students in locations nationwide, in accordance with US Department of Education requirements. New Mexico’s governor recently signed legislation clearing the way for a CDHC program in that state. The Oregon State Legislature has authorized a CDHC pilot project. Arizona and several other states have expressed strong interest in the CDHC. The Native American educational community is particularly interested in CDHC programs, not only as a way to improve people’s health, but also to create a new career pathway.

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The ADA has invested thousands of hours and millions of dollars in making the Community Dental Health Coordinator a reality. Internationally recognized universities have invested faculty time, physical plant and other resources. A Fortune 500 company has committed nearly $1 million in equipment. The students have invested their hopes for meaningful careers. All have done so with the conviction that the Community Dental Health Coordinator can be a significant element in the larger effort to break down the barriers that impede too many Americans from achieving good oral health.
About the American Dental Association
The not-for-profit ADA is the nation’s largest dental association, representing more than 157,000 dentist members. The premier source of oral health information, the ADA has advocated for the public’s health and promoted the art and science of dentistry since 1859. The ADA’s state-of-the-art research facilities develop and test dental products and materials that have advanced the practice of dentistry and made the patient experience more positive. The ADA Seal of Acceptance long has been a valuable and respected guide to consumer dental care products. The monthly *The Journal of the American Dental Association (JADA)* is the ADA’s flagship publication and the best-read scientific journal in dentistry.

For more information about this report, please call 202.898.2400 or email govtpol@ada.org.

For more information about the ADA, visit the Association’s website at ADA.org.

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