# Dental Public Health Activities & Practices

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### SECTION I: PRACTICE OVERVIEW

**Name of the Dental Public Health Activity:**
The South Carolina Dental Directory for Individuals with Special Health Care Needs

**Public Health Functions:**
Policy Development – Collaboration and Partnership for Planning and Integration
Policy Development –           Oral Health Program Organizational Structure and Resources
Assurance – Building Linkages and Partnerships for Interventions
Assurance – Building State and Community Capacity for Interventions
Assurance – Access to Care and Health System Interventions

**Healthy People 2010 Objectives:**
21-1   Reduce dental caries experience in children
21-2   Reduce untreated dental decay in children and adults
21-10   Increase utilization of oral health system
21-12   Increase preventive dental services for low-income children and adolescents
6-10   Increase proportion of health and wellness and treatment programs and facilities that provide full access for people with disabilities.

| State: | Federal Region: | Key Words for Searches: |
| --- | --- | --- |
| South Carolina | Southeast Region IV | Access to care, children with special needs, dentist directory, online dental provider information |

**Summary:**
The purpose of the online dentist directory (http://www.handsonhealth-sc.org/A/resources/dentist.php) is to increase access to care for individuals with special needs by making it easier to identify dentists who are willing to provide services. The directory was developed in 2000 in response to parent and professional concerns about difficulty in finding dentists to serve their children with special needs. The directory contains information on nearly 400 dentists. Information include the kinds of patient conditions or disabilities the dentist can manage, where the dentist is located, whether or not the dentist accepts Medicaid, if the office is handicap accessible, languages that are spoken, and the hours of operation. Dentist participation in the directory is voluntary and initially was integrated into the existing state licensure process. The directory is available to individuals, parents, caregivers, and health and social service professionals who assist patients to find dental services. A print edition was created in 2001, but in 2002 the directory was put online to make it more widely available and to include additional features to increase its usefulness. The online directory is not password protected. The cost of collecting the dentist data was minimal because the process was incorporated into the usual dentist license registration and did not require a separate survey. The cost of establishing an interactive website for the directory was approximately $10,000 and was supported by the Duke Endowment. Feedback from parents and professionals indicate that the directory has been successful in linking patients to dentists efficiently.

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**History of the Practice:**

In 1997, the Medical University of South Carolina (MUSC) launched the *Healthy South Carolina Initiative*. Under this initiative, 28 separate projects were funded to address major health concerns in the state. One of these projects was the *Dental Program for the Diagnosis and Treatment of the Special Patient*, to address the unique oral health problems of children with special needs. More information about the *Healthy South Carolina Initiative* and the *Dental Program for the Diagnosis and Treatment of the Special Patient* is available at http://www.musc.edu/hsci/introduction/introduction.htm and http://www.musc.edu/hsci/initiatives/initiatives.htm.

One of the major goals of the *Dental Program for the Diagnosis and Treatment of the Special Patient* was to establish a referral program and a statewide dental network for special needs patients.  A directory of dentists who treat special needs patients was developed as contributing effort to the program goal.  Other goals included: establishment of didactic courses and clinical rotations for dental students at MUSC regarding diagnosis, management, and dental care of the special patient; participation of medical and nursing students in the on-call schedule; training for families on the dental needs of their children; and survey of patients for their dental needs.  To date, over 1,500 dentist and staff members have been reached through continuing education classes and over 4,000 clinic patients and caregivers have been trained in dental health care.

In 1998, a request was sent to the South Carolina Board of Dentistry to distribute a questionnaire as part of the dentist re-licensure process, soliciting information from dentists who wished to be listed in the directory.  In 2001, the dentist directory was completed and was made available in print to a wide variety of health and social service organizations and to families.  Feedback from professionals and families who used the directory was very positive; however, there was concern that the print directory was not widely available to families. In early 2002, financial support was obtained from the Duke Endowment to create an online version of the directory with advanced search capability.  The online directory became operational in late 2002 and is managed by Dr. Carlos Salinas at the College of Dental Medicine and Ms. Nancy McKeehan from the MUSC Library.

**Justification of the Practice:**

There is a need to address the problems experienced by special needs patients in finding sources of dental care in the community.  This is a problem of national scope and in South Carolina which has a large proportion of its population living in rural areas.  In these isolated areas, dental providers with the skills to serve people with special needs are scarce.  Most dental specialists are concentrated in large cities.

The SC Department of Health and Environmental Control considers oral health to be one of the 11 major health problems in the state, recognizing that the problem is most acute for underserved populations such as people with special needs.  These major health problems are addressed in the *Healthy People Living in Healthy Communities 2006 Report*, which is the annual report of the South Carolina Department of Health and Environmental Control (SCDHEC).  See: http://www.scdhec.net/.

Prior to making the directory available, many families were unable to find a dentist to treat their child with special needs.  Consumers and health professionals (e.g., physicians assisting families) had no systematic approach to identify an appropriate dentist.

An online directory uses new web-based technology to provide more information so that families are empowered to help themselves.  The online directory has advanced search capabilities so that users can search for dentists anywhere in the state who have specific characteristics that are important to the patient (such as the ability to serve patients who have a specific diagnosis, the ability to speak Spanish, a location in a specific city, or the willingness to accept Medicaid).  A "search engine" approach compared to more traditional directories allows more interactivity in seeking specific information.

**Inputs, Activities, Outputs and Outcomes of the Practice:**

## *Inputs*

For the online South Carolina Dental Directory for Individuals with Special Health Care Needs, inputs relate to collecting the dentist information for the directory and related to creating and managing the website.

*Collecting dentist information*:  Dr. Carlos Salinas developed the questionnaire based on the experiences his special need patients shared with him. He worked with Dr. Ray Lala from the SCDHEC Dental Office who contacted the SC Dental Board of Dentistry and secure a commitment to distribute the questionnaire to SC dentists with the renewing of their licenses.  The application form for dentists to be listed in the directory is available on the directory website: http://www.handsonhealth-sc.org/A/resources/dentist.php. Once dentists submit their information, a staff person enters the information into a database. A major data entry effort was needed when the project started and many dentists provided information. A database expert was contracted to organize the information.  After the first year, fewer new dentists needed to be added to the directory each year.

*Creating and maintaining the website*:  A consultant, Ms. Nancy McKeehan, with wide expertise in website development, was hired to create the website using the database of dentist information. The major goals were to make it easy to use and to include a search function that provided information of the greatest importance to the user. Once the website was created, there is the need to maintain the website to update the dentist information and to troubleshoot for problems that may arise.

## *Activities*

Online directory activities include individuals entering the online directory website (http://www.handsonhealth-sc.org/A/resources/dentist.php) and using the search function to identify dentists who meet their requirements.  There are both Quick Search and Advanced Search functions for the website.  The Quick Search function allows the user to find a dentist by specifying the patient's special need (diagnosis or condition), dentist name, or dentist location.  The Advance Search function contains more search options including: the patient's special need, special arrangements (office hours and the use of the hospital operating room), type of practice  (general dentistry or specialty type), age of the patient (child, adolescent, adult), languages spoken, type of payment accepted, and geographic location (zip code or city).  Users can specify one or more of these search items simultaneously.  The search process is intended to give the user the name of one or more dentists who meet the user's requirements.

## *Outputs*

The project identified dentists who are willing to serve patients with special needs and list them in the online directory along with ancillary information about their practices.  This information is useful to health and social service providers who assist their clients in finding a dentist and to the patients.  Such a directory did not exist previously in the state of South Carolina.

The project provided the public and providers access to the online directory for make searches for a dentist. Some patients or their families may use the website only once to obtain the name of a dentist and may have no further need for ongoing use of the online directory.  In contrast, physicians, family support organizations or case workers who are referring patients to a dentist may use the website frequently. The project tracks the number of website "hits", which is defined as every time the URL is accessed on the server, essentially a search made on the online directory.  To date, over a period of approximately 51 months, the website has received a total of 68,682 hits, which averages to approximately 1,347 hits per month.

## *Outcomes*

The desired outcome of the project is that those who use the directory obtained information that resulted in the patient successfully obtaining the required dental care services.  This requires that the information on the website is accurate and up-to-date and that people actually use the information to receive dental services.  To date it has not been possible to measure this outcome due to the lack of resources to perform such evaluation  The program is considering collecting evaluation information by asking the users of the online directory to self-report their experience in obtaining dental care.

Another desired outcome of the project is that people are satisfied with how the directory works and that they feel it is a useful resource.  Even if a person's search is unsuccessful because there are no dentists that meet the user's requirements, it is important that people are satisfied with the accessibility of the directory and are comfortable using its search capabilities.  Anecdotal evidence suggests that the online directory is an extremely useful resource, but there has not been a systematic evaluation to date.

**Budget Estimates and Formulas of the Practice:**

The cost to initially obtain the dentist information during the annual dentist re-licensing process and to enter it in a database was approximately $2,000.  The cost to create the directory in print format and to make 500 copies was approximately $1,500.  The cost to develop the website was approximately $5,000.  The annual cost to maintain the website is approximately $1,000.

**Lessons Learned and/or Plans for Improvement:**

Lessons learned:
1. Creation of the dentist directory was easier than expected because it used a simple approach that was integrated into the existing dentist registration process.
2. The dentist directory succeeded because it was just one part of a larger University-based initiative that involved collaboration among many different people, agencies and organizations who shared the goal of making services more accessible for people with special needs.
3. Collaboration with the state oral health program was instrumental in gaining the support of the SC Dental Board to participate in this project.
4. Collaboration with the MUSC Library was instrumental in creating and maintaining the website.
5. An unexpected finding is that many public library patrons seek health provider information from libraries in their local communities. To address this consumer need, a HYPERLINK to the dental directory is provided to all libraries in the state, expanding the reach to families who might not be able to access our website at home.

Plans for improvement:
1. There are plans to link the directory to an online transportation utility such as Mapquest so that patients can find dentist offices more efficiently.
2. There are plans to add improvements to the website's search function so the directory will be more useful.
3. There are plans to collect additional data to document the utilization of the directory and to measure user satisfaction.

**Available Information Resources:**

The South Carolina Dental Directory for Individuals with Special Health Care Needs:
- Online directory at http://www.handsonhealth-sc.org/A/resources/dentist.php
- Application for dentist to be listed in the directory at http://www.handsonhealth-sc.org/A/resources/dentalform.php?m=a
- Directory up-date form at http://www.handsonhealth-sc.org/A/resources/dentalform.php?m=u

Examples of online special needs dentist directories:
- Licensee Lookup sponsored by the South Carolina Department of Labor, Licensing and Regulation at https://verify.llronline.com/LicLookup/
- Dental Facility Resource Directory of the New York State Office of Mental Retardation and Developmental Disabilities at http://www.omr.state.ny.us/hp_dentistry_index.jsp (Follow link to Dental Facility Resource Directory.)
- Special Needs Directory of the Cincinnati Children's Hospital Medical Center at http://www.cincinnatichildrens.org/svc/alpha/c/special-needs/resources/dental.htm
- Illinois Provider Directory for CSHCN and Their Families http://www.illinoisproviderdirectory.org/icaap/default.asp (Follow link to Provider Finder.)

## Impact/Effectiveness

*How has the practice demonstrated impact, applicability, and benefits to the oral health care and well-being of certain populations or communities (i.e., reference scientific evidence, outcomes of the practice and/or evaluation results)?*

For over four years, the online directory has been maintained. While not every hit may be an actual search for a dentist (some hits may represent people becoming familiar with the site), it does demonstrate a substantial level of usage. Reports from parents, physicians, and dentists suggest that the online directory is helping special needs patients to connect with dentists who can serve them.

The majority of dentists in the directory are general dentists. They provide services mostly to special patients who have non-complex treatment requirements. The access-to-care problem of the special needs population is extensive in the state; the dentists listed in this directory help to increase access to care but they cannot solve the problem themselves. The state needs the participation of all dentists to properly address the oral health requirements of people with special health care needs.

## Efficiency

*How has the practice demonstrated cost and resource efficiency where expenses are appropriate to benefits? How has the practice demonstrated realistic and reasonable staffing and time requirements? Provide unit cost analysis or cost-benefit analysis if appropriate.*

The online dentist directory is a very efficient model because the information it contains is made available to all families in the state able to access the Internet. The self-help nature of the directory makes it less expensive than the alternative of using a telephone "hot-line" that requires staff to respond to calls from providers and families seeking information. The model is also more efficient than the traditional alternative of "hunting" for a dentist in the Yellow Pages or other commercial dentist directory that typically does not indicate whether or not the dentist will serve patients with special needs. In the initial project phase of identifying dentists who want to be listed in the directory, integrating information gathering with the dentist re-licensing process avoided the cost of a separate survey.

## Demonstrated Sustainability

*How has the practice showed sustainable benefits and/or how has the practice been sustainable within populations/communities and between states/territories? What mechanisms have been built into the practice to assure sustainability?*

The project has been operational for 4 years but there is high expectation that it can be sustained much longer because of the low cost of maintaining the website (approximately $1000 per year). The major expenses of the project were at start-up that included personnel time required during the planning process, the initial dentist sign-up, the creation of the database, and the launching of the website. On-going cost is low.

## Collaboration/Integration

*How has the practice built effective partnerships/collaborations among various organizations and integrated oral health with other health projects and issues? What are the traditional, non-traditional, public and private partnerships/collaborations established by the practice for integration, effectiveness, efficiency and sustainability?*

The successful implementation of this project required collaboration among the MUSC School of Dental Medicine, SCDHEC Dental Division, the South Carolina Board of Dentistry, the South Carolina Developmental Disabilities Council, SC Dental Association, and the private practitioners who volunteered to be listed in the directory. The support of the Duke Endowment was also instrumental in funding the creation of online directory website.

The online directory is integrated into other activities of the *Dental Program for the Diagnosis and Treatment of the Special Patient*, especially the annual continuing education course in special needs dentistry that is offered to dentists. The course is intended to increase their awareness of dental disease, increase the capabilities of dentists to serve people with special needs, and increase the number of dentists to be listed in the online directory.

The online dental directory and other projects of the MUSC *Dental Program for the Diagnosis and Treatment of the Special Patient* were integrated into the *More Smiling Faces in Beautiful Places (MSF)* project, which was sponsored by the oral health program of the state health department with support from the Robert Wood Johnson Foundation. The purpose of this project was to eliminate oral health disparities among minorities, children with special needs, and those economically disadvantaged who are uninsured or underinsured. The project focuses on the needs of children from birth to age six and children and adolescents with special needs. The online dental directory was a component of the MSF strategy to create integrated oral health networks and to establish links between medical homes and dentists.

### Objectives/Rationale
*How has the practice addressed HP 2010 objectives, met the call to action by the Surgeon General's Report on Oral Health, and/or built basic infrastructure and capacity for state/territorial oral health programs?*

The objective of the online special needs directory is to improve access to dental care for patients with special needs, which is consistent with Healthy People 2010 objectives and the Surgeon General's Call to Action to Promote Oral Health. The directory has become the foremost resource in the state for linking patients with special needs to dentists who can serve them.

### Extent of Use Among States
*Describe the extent of the practice or aspects of the practice used in other states?*

It is not known if another state has created an online special needs dentist directory that has search capabilities similar to South Carolina. Advances in computer and internet technology have enabled web-based dental directories to proliferate. Insurance companies and professional dental organizations sponsor some of these directories while others are commercial enterprises. The usefulness of these online directories is limited because they typically do not provide information about the dentist's willingness to serve people with special needs, and they typically do not have advanced search capabilities.