



Dental Public Health Activities & Practices

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SECTION I: PRACTICE OVERVIEW

Name of the Dental Public Health Activity:

The Nisonger Center Dental Program – Training of Dental Professional Students to Serve Persons with Disabilities

Public Health Functions:

Assurance – Population-based 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
- 21-3 Increase adults with teeth who have never lost a tooth
- 21-4 Reduce adults who have lost all their teeth
- 21-5a Reduce gingivitis among adults
- 21-5b Reduce periodontal disease among adults
- 21-6 Increase detection Stage I oral cancer lesions
- 21-7 Increase number of oral cancer examinations
- 21-8 Increase sealants for 8 year-olds' first molars & 14 year-olds' first & second molars
- 21-10 Increase utilization of oral health system
- 21-11 Increase utilization of dental services for those in long-term facilities
- 21-12 Increase preventive dental services for low-income children and adolescents

State:

Ohio

Federal Region:

East
Region V

Key Words for Searches:

Dental student training, persons with disabilities, access to care, special health care needs

Abstract:

The Nisonger Center Dental Program, located on the health sciences campus of the Ohio State University (OSU) but separate from the College of Dentistry, has been in existence since 1972. The Nisonger Center is a University Center of Excellence on Developmental Disabilities (UCEDD), part of a network of programs linked through the Association of University Centers on Disabilities (www.AUCD.org). The Center utilizes an interdisciplinary approach to training and providing services to children and adults with disabilities and their families. The annual budget is approximately \$460,000 (the majority is used for staff salaries). The support of the OSU College of Dentistry and Columbus Children's Hospital Dental Clinic makes it possible for the students/residents to receive training at the Nisonger Center in an interdisciplinary service delivery setting. The focus of the Program is training through service. Each year approximately 100 fourth year dental students, 35 dental hygiene students, 6 second year pediatric dental residents, and 8 General Practice Residency/Advanced Education in General Dentistry (GPR/AEGD) residents rotate through the program. During their rotations, the students/residents receive clinical experience/training and didactic education regarding various aspects of developmental disabilities related to children and adults. Most patients treated at the Nisonger Center Dental Program are healthy medically and are at the moderate level of mental retardation. Students provide dental care in a dental office like setting with a focus on behavioral management techniques. No general anesthesia is given and minimal sedation experience is provided through the rotations. The training is intended to demonstrate that the vast majority of patients with developmental disabilities can be treated in a routine manner and require no special equipment or techniques. This training experience provides future dental health practitioners with first-hand exposure to a special segment of the population, helps to form their perceptions regarding their capability to provide dental health care for people with disabilities, and shape their future clinical practices.

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SECTION II: PRACTICE DESCRIPTION

History of the Practice:

The Nisonger Center, located on the health sciences campus of the Ohio State University (OSU), is a University Center of Excellence on Developmental Disabilities (UCEDD). Individual UCEDDs are linked through the Association of University Centers on Disabilities (AUCD). (Information about UCEDDs and the AUCD can be obtained at the AUCD website: <http://www.aucd.org/template/page.cfm?id=24>.)

Since 1963, UCEDDs have been working to accomplish a shared vision that foresees a nation in which all Americans, including Americans with disabilities, participate fully in their communities. Sixty-one Centers in every state and territory are located in a university setting. Centers are in a unique position to facilitate the flow of disability-related information between community and university. Centers work with people with disabilities, their families, state and local government agencies, and community providers in projects that provide training, technical assistance, service, research and information sharing, all with a focus on building the capacity of communities to sustain all their citizens.

The Nisonger Center Dental Program was established in September 1972 to provide service and training. The Center received initial funding from the Maternal and Child Health Bureau (MCHB) and later from the Agency on Developmental Disabilities (ADD). The funding from MCHB built the fixed facility that houses the Nisonger Center, purchased the initial dental equipment and supplies, and supported the hiring of a pediatric dentist on staff. The ability of these funds to support the Dental Program has eroded as program costs increased and the funds have not increased over time. Fortunately, the dental program has received tremendous support from the local county board of Mental Retardation/Developmental Disabilities (MR/DD) that has allowed the program to expand and meet the needs of the community. What began as \$30,000/year in support has grown to almost \$250,000/year. The county board recognizes the need for dental services, especially for adults enrolled in their programs. This kind of support is special in the U.S.

The training rotations for dental hygiene students began shortly after the opening of the Nisonger Center. Two years later, the dental student rotations were initiated. The resident rotations came later. The training component of the Dental Program has undergone changes and expanded over the years. Prior to the opening of the Nisonger Center Dental Program, dental health students at OSU received no training or experience treating with people with MR/DD in an "office like" setting. Reducing barriers to care and improving access have been the primary goals of the dental program since its inception. If access to care is to improve for children and adults with developmental disabilities, the general practitioner, as well as the various dental specialists, needs to be actively involved. The general practitioner, by sheer numbers, would/should be the primary resource for care, but this has not been the case since so few dental schools offer organized experiences for their students. The OSU has made a commitment to improving access to care and has increased that commitment over time. OSU is one of the only dental schools in the US where ALL dental, dental hygiene, GPR/AEGD residents and pediatric dental residents receive clinical training and experience with children and adults with developmental disabilities.

Justification of the Practice:

The Nisonger program prepares dental professional students to serve people with MR/DD. The program provides rotations for the dental students with the intent to reduce the fear factor and increase the confidence level of these future dental health practitioners. The program wants to have the students experience first-hand that the majority of people with disabilities require no special techniques to provide appropriate dental care and the majority the special needs patients can be treated in an office setting.

The Nisonger Center Dental Program is a safety net program for people with MR/DD in Ohio, who have difficulty finding other sources of dental care. Although the state's Medicaid Program covers adult dental services, Medicaid has placed additional restrictions and reduced the already inadequate reimbursement to dentists. As a consequence of these Medicaid cutbacks, referrals from private dentists to Nisonger have increased sharply since January 2006.

Social justice is another reason for the Nisonger program. All people, including people with MR/DD, deserve adequate and appropriate health care including dental care. Too many people are seen in hospital emergency rooms suffering from their dental problems. The program wants to reduce disparities in access to dental care for people with MR/DD and to assure that people with disabilities are able to obtain care in a dignified manner.

Inputs, Activities, Outputs and Outcomes of the Practice:

Inputs

Dental Staff:

The Nisonger Center Dental staff consists of the following:

- One 0.8 FTE Pediatric Dentist (Director)
- One 0.1 FTE General Practitioner
- One 0.3 FTE General Practitioner
- One 0.4 FTE General Practitioner
- One 0.8 FTE Dental Hygienist
- One 1.0 FTE Dental Assistant
- Two 0.8 FTE Dental Assistants
- One 1.0 FTE Office Manager

The Dental Program Director is a consultant for the Grottoes of North America Humanitarian Foundation; the Foundation supports dental care for children with certain disabilities. The Director also serves on the Boards of the American with Disabilities Act – Ohio (ADA-OHIO) and the Advocacy and Protective Services Inc. (APSI), a statewide guardianship organization for people with disabilities.

The professional staff provides all basic dental services, plus prosthetic, complex oral surgery, periodontal and orthodontic care. In addition to the providing direct services to patients, the dental program staff trains the dental/dental hygiene students and residents, provides in-service training for community care givers, conducts screenings, and conducts the oral health screenings and data collection at the Ohio Special Olympics Summer Games.

Dental Facility and Patients:

The Nisonger Center Dental Program operates a six chair dental facility. Although the dental program serves children and adults with disabilities that run the gamut of developmental disabilities, most patients are essentially healthy medically and have moderate mental retardation. The Dental Program does not deny care to any patient based on his/her ability to pay. The Program has a sliding fee scale with a minimum fee of \$0.

Activities

Training:

The focus of the Nisonger Center Dental Program is primarily training through service. All fourth year dental students, senior dental hygiene students, second year pediatric dental residents, and General Practice Residency/Advance Education in General Dentistry (GPR/AEGD) residents, rotate through the program. The support of the OSU College of Dentistry and Columbus Children's Hospital Dental Clinic make it possible for their students/residents to receive training at the Nisonger Center.

During their rotations the students/residents receive clinical experience/training and didactic material regarding various aspects of developmental disabilities in children and adults. A dental student rotation is 40 hours (1 day per week for five weeks). A dental hygiene student rotation is also 40 hours (1/2 day per week for 10 weeks). A pediatric dental resident rotation is 3 days per week for a month and a GPR/AGD resident rotation is 1 day per week for a month. During these rotations, students and residents provide dental care in a dental office-like setting. The rotations do not provide experience in general anesthesia and only offer minimal sedation experience. The training focuses on patient management using behavioral techniques.

Time is set aside during the rotations for didactic education. Presentations are provided covering subjects such as transfer from a wheelchair to a dental chair, seizure disorders, and recommendations on working with people with disabilities in a respectful manner.

Patient care:

The Nisonger Center utilizes an interdisciplinary approach to train students and to deliver services for children and adults with disabilities. The underlying principle is that developmental disabilities are not solely an educational, medical, psychological or social problem. Serving people with MR/DD requires a team approach to address the various issues that arise, and these issues change as the child grows into adulthood. The dental program receives numerous referrals from the other departments at Nisonger, and the dental students and residents are encouraged to consult with professionals of these other departments to obtain a comprehensive understanding of patient's conditions and disabilities.

Outputs

Students/residents trained:

Number of dental students trained per year = 100
Number of dental hygiene students trained per year = 35
Number of Pediatric dental residents trained per year = 6
Number of GPR/AEGD residents trained per year = 8

Patients treated:

Number of patients treated per year = 3,700

Outcomes

Practitioners who are more competent to serve people with MR/DD:

The intent of the training is to demonstrate that the vast majority of patients with developmental disabilities can be treated in a routine manner and require no special equipment or techniques. This experience provides future dental health practitioners with first-hand exposure to a segment of the population that they do not routinely come into contact with in the course of their dental education. The students/residents will be the future dental health practitioners in communities. To improve the access to care for this population, the experiences the students/residents while in training can help shape their future practices and perceptions regarding dental health care for people with disabilities. These students/residents, having provided direct services to children and adults with disabilities will have a basis to determine whether this is something they want to continue to do in their practices and, if not, will know that their decision is based on personal experience and not on second hand information.

Strengthening the infrastructure of care for people with MR/DD:

The Nisonger Center Dental Program contributes to the infrastructure for delivery of dental care services to people with disabilities in Ohio. The program has operated for more than 23 years and expanded its capacity in service delivery and in training students and residents. Although not all students who obtain training in the program eventually practice dentistry in Ohio, a great majority of them do, and they represent a critical element of the oral health care infrastructure for people with MR/DD in Ohio.

Budget Estimates and Formulas of the Practice:

Revenue:

The major factor enabling the Nisonger Center Dental Program to achieve its current capacity is the ongoing financial support of the Franklin County Board of MR/DD. The support has grown from \$30,000 in the 1970s, to almost \$250,000 per year currently, which is the primary funding source for the Dental Program. Medicaid revenue, both from fee-for-service and managed care contracts, provides approximately \$160,000 annually. Additional revenue comes from grants from the MCHB and the Agency on Developmental Disabilities (ADD).

Expenses:

Annual program expenses are approximately \$460,000. Staff salaries require approximately \$300,000 and approximately \$160,000 is required for equipment replacement and repair, and supplies. Any excess of revenue over costs is used to cover administrative expenses of the Nisonger Center. The Dental Program does not separately track expenses related to the

training of students and residents since training is provided by the clinical staff and through services delivered to the patients.

Lessons Learned and/or Plans for Improvement:

1. Safety net programs like Nisonger need a secure funding base to continue to provide services to the unserved and underserved; these programs will continue to flounder as long as funding based on fee recovery is inconsistent and inadequate. Community based programs nationally have about half their positions open since public funding is so uncertain. The key to success for the Nisonger Center Dental Program is the support of the local MR/DD program.
2. The support of the OSU College of Dentistry and Columbus Children's Hospital Dental Clinic has been critical to the success of the Nisonger Center Dental Program. In many schools of dentistry, training programs have educational and clinical requirements that do not necessarily include people with disabilities; the strong support of these institutions to provide this experience to their students/residents is crucial to support training at the Nisonger Center.
3. If one is starting a program similar to Nisonger's it would be wise to start small and try to expand when the opportunities arise, in recognition of the fact that resident and student schedules are tight and getting more restrictive as university budgets become tighter. For these rotations to expand, there needs to be a willingness to work out arrangements with the educational institutions. At Nisonger, the rotation time for all the levels of students/trainees have increased gradually but the rotation time for the GPR/AEGD residents has decreased due to increased pressure on the program to be a revenue center.
4. Since the Nisonger Center Dental Program has limited clinical staff to support training, students are frequently paired up, with one as the operator and the other as the assistant. This strategy alleviates the staff shortage to oversee and train the students.

Available Information Resources:

Training materials used at Nisonger:

(These materials will be shared upon request if the materials are not restricted or copyrighted.)

- "Transferring the Patient from the Wheelchair to the Dental Chair" – The video, produced at The University of Minnesota, demonstrates unassisted one person and two person transfers.
- "Educating Peter" – The video, produced by HBO, follows a young boy with Down's Syndrome as he adjusts to a public school environment.
- "How to Recognize and Classify Seizures" – The video, produced by the Epilepsy Association, discusses the International Classification of Seizure Disorders with examples of the various kinds.
- "Why me?" – The video is a panel discussion of adults with siblings who have a developmental disability. It describes their experiences from childhood through adulthood.
- "The Ten Commandments" – The video demonstrates with humor how to interact with people with disabilities in a respectful manner.
- Overview of Disabilities for the Dental Health Professional – A PowerPoint presentation on CD-ROM developed by Nisonger Center Dental Program with support from the Ohio Developmental Disabilities Council.

Resources on preparing dental professionals to serve people with special health care needs:

- Special Care: An Oral Health Professional's Guide to Serving Young Children with Special Health Care Needs. National Maternal and Child Oral Health Resource Center. This series of five self-contained online modules is designed to provide oral health professionals with information to help ensure that young children with special health care needs have access to health promotion and disease prevention services that address their unique oral health needs in a comprehensive, family-centered, and community-based manner. See: <http://www.mchoralhealth.org/SpecialCare/>
- Continuing education: Practical oral care for people with developmental disabilities. 2004. Bethesda, MD: National Institute of Dental and Craniofacial Research. See: <http://www.nidcr.nih.gov/HealthInformation/DiseasesAndConditions/DevelopmentalDisabilitiesAndOralHealth/ContinuingEducation.htm>
- Oral health care for persons with disabilities: An online continuing education course. 2004. Gainesville, FL: Department of Pediatric Dentistry, University of Florida College of Dentistry. See: <http://www.dental.ufl.edu/faculty/pburtner/disabilities/english/titlepag.htm>

- Oral health: Guidelines for people with disabilities. 2002. [Louisville, KY]: Standards of Care Committee, Academy of Dentistry for Persons with Disabilities. See: <http://www.dent.ohio-state.edu/postdocgd/Disabilities/OralHealthCareGuidelines1002.pdf>
- Planning guide for dental professionals serving children with special health care needs. 2000. Los Angeles, CA: University of Southern California University Affiliated Program, Children's Hospital Los Angeles. See: <http://www.mchoralhealth.org/pdfs/ohguide.pdf>

Resources on the broad subject of children with special health care needs:

- The National Maternal and Child Oral Health Resource Center. See: <http://www.mchoralhealth.org/materials/action.lasso?-database=Biblio&-layout=Web&-response=results.lasso&-MaxRecords=all&-DoScript=OHRCSHCN&-search>

Journal articles that address the need for additional educational preparation of dental professionals to serve people with disabilities:

- Casamassimo PS, Seale NS, Ruehs K. General dentists' perceptions of educational and treatment issues affecting access to care for children with special health care needs. *J Dent Educ.* 2004; Jan; 68(1): 23-8.
- Dougherty N, Romer M, Lee RS. Trends in special care training in pediatric dental residencies. *ASDC J Dent Child.* 2001 Sep-Dec; 68(5-6): 384-7, 303.
- Romer M, Dougherty N, Amores-Lafleur E. Predoctoral education in special care dentistry: paving the way to better access? *ASDC J Dent Child.* 1999 Mar-Apr; 66(2): 132-5, 85.
- Mouradian WE. The face of a child: children's oral health and dental education. *J Dent Educ.* 2001 Sep; 65(9): 821-31.
- Loan P. Dao, Samuel Zwetchkenbaum, and Marita Rohr Inglehart. General Dentists and Special Needs Patients: Does Dental Education Matter? *J Dent Educ.* 2005 69: 1107-1115

SECTION III: PRACTICE EVALUATION INFORMATION

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)?

The Nisonger Center Dental Program provides clinical services in the Columbus metropolitan area serve the entire state of Ohio (over 3,700 children and adults with disabilities annually). The program prepares dental professionals to practice through out the U.S. The Dental Program also trains future dental practitioners in an interdisciplinary setting for approximately 100 fourth year dental students, 35 dental hygiene students, 6 second year pediatric dental residents, and 8 GPR/AEGD residents annually. The Program builds infrastructure for dental care service delivery to special needs population. The Program's training aims to increase the provider workforce to minimize disparities in care. Moreover, through technical assistance to other providers, the Dental Program builds capacity within communities to reducing disparities among individuals with disabilities.

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.

Cost and resource efficiencies are realized by the Nisonger Center Dental Program because it utilizes unpaid dental and dental hygiene students, and residents who are paid by other programs, to provide a significant amount of clinical services to Nisonger patients. The services provided by these students and residents augment the services provided by the paid clinical staff at Nisonger. Without the students and residents, Nisonger would have to reduce the number of patients it can serve or find additional funds to hire more clinical staff.

Cost and resource efficiencies are also realized by the OSU School of Dentistry and The Columbus Children's Hospital because they can use the Nisonger dental clinic as a training site for their students. As a result of the collaborative relationship with Nisonger, these institutions not only require fewer training facilities of their own, but they also utilize Nisonger staff as instructors.

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 Nisonger Center Dental Program has expanded and evolved for more than 35 years, much longer than many other UCEDD-sponsored dental programs that did not survive very long after initial funding in the 1970s. Nisonger's long-term sustainability is due in large part to the substantial financial support of the Franklin County Board of MR/DD, which has grown from \$30,000 to almost \$250,000 per year. This local support augments more traditional sources of support such as federal grants and Medicaid reimbursement. The support of the Franklin County Board of MR/DD, in turn, is the result of the exceptional level of service provided to the community and the effort of the Program Director to advocate for dental services for people with MR/DD in general, and for support for the Nisonger program in particular. The Franklin County Board of MR/DD understands the value of the services it receives for its funding, and has been willing to continue, and even increase, that level of funding over the years.

However, future sustainability for safety net programs such as the Nisonger's is a challenge. As the state and national economies face deficits, the elimination or restriction of Medicaid adult dental benefits will threaten program operation. Unfortunately, most safety net programs operate without a "safety net" and are threatened by budgetary decisions made by state legislatures or Medicaid programs.

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 Nisonger Center Dental Program has developed collaborations with numerous organizations that serve people with disabilities. A principal collaborator is the Franklin County Board of MR/DD, the major financial supporter of the Program. Other collaborative relationships have been formed with the federal Agency on Developmental Disabilities, the MCHB, and the Grottoes of North America Humanitarian Foundation that pay for services families cannot afford. Due to the program's longevity and reputation for high quality care, it has long-standing relationships with many MR/DD agencies throughout central Ohio, to provide a source of care for their clients who face barriers to care in their own communities.

Collaborations with dental educational institutions in Columbus (the OSU School of Dentistry and the Columbus Children's Hospital that sponsors the pediatric residency program) are essential to the success of Nisonger's program. Both Nisonger and these institutions derive mutual benefit from their collaborative relationship.

At Nisonger, program integration is central to the Center's interdisciplinary approach to delivering integrated and coordinated services to people with disabilities. The dental program (Dentistry/Pediatric Dentistry) is just one of many programs at Nisonger. Others include Audiology, Health Administration, Nursing, Nutrition, Occupational Therapy, Parent/Family Resources, Pediatrics, Psychiatry, Child Psychology, Social Work, Special Education, and Speech-Language Pathology. Patients are frequently cross-referred among these departments to create a truly integrated service delivery system.

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 Dental Program addresses the HP 2010 Objectives and the Surgeon General's Report on Oral Health by helping to prepare an oral health workforce that is competent and confident to provide services to a chronically underserved population including persons with MR/DD and other disabilities. The Dental Program also supports Ohio's state-wide strategy to build a dental workforce infrastructure that can respond to the needs of some of the most vulnerable residents of Ohio. The trainees represent the future dental health providers in various communities.

Extent of Use Among States

Describe the extent of the practice or aspects of the practice used in other states?

There are 61 University Centers for Excellence in Developmental Disabilities (UCEDDs) and the Centers are found in every state and territory in the U.S. However, only a small proportion of UCEDDs have a dental program, and of the ones that do, it is unlikely that any have as strong a training component for dental/dental hygiene students and general practice/pediatric residents as does Nisonger. What sets the Nisonger program apart from many other training programs at the undergraduate and residency level is the true interdisciplinary nature of the training environment.