

North Carolina Institute of Medicine Task Force on Dental Care Access

Report to the North Carolina General Assembly and to
the Secretary of the North Carolina Department of
Health and Human Services

Although dental problems don't command the instant fears associated with low birth weight, fetal death, or cholera, they do have the consequences of wearing down the stamina of children and defeating their ambitions. Bleeding gums, impacted teeth, and rotting teeth are routine matters for children I have interviewed...

Children get used to feeling constant pain. They go to sleep with it. They go to school with it. Sometimes their teachers are alarmed and try to get them to a clinic. But it's all so slow and heavily encumbered with red tape and waiting lists...that dental care is long delayed. Children live for months with pain that grown-ups find unendurable. The gradual attrition of accepted pain erodes their energy and aspirations (Jonathan Kozol, 1991).

Members:

Gordon H. DeFrieze, Ph.D., President and
C.E.O., NC Institute of Medicine
Pam Silberman, J.D., Dr.P.H., Vice President,
NC Institute of Medicine
R. Gary Rozier, Ph.D., D.D.S., M.P.H., Professor
Health Policy and Administration, UNC-CH
Jessica Y. Lee, D.M.D., M.P.H.,
NRSA Research Fellow, UNC-CH
B. William Lohr, P.H.L., Research Associate, NC•IOM
Heather M. Edin, Research Associate, NC•IOM
Kristie W. Schmidt, M.A., Research Associate,
NC•IOM
The Honorable Dennis Wicker,
Lieutenant Governor, Chair
Sherwood Smith, Jr., Chairman of the Board,
Carolina Power & Light Company, Vice-Chair
L'Tanya Bailey, D.D.S., President,
Old North State Dental Society
Suzi Bowden, Past-President,
NC Dental Hygiene Association
E. Harvey Estes, Jr., M.D., Chairman of the
Board of Directors, NC Institute of Medicine,

and former Director, Community Practitioner
Program, NC Medical Society Foundation
Stanley L. Fleming, D.D.S., President,
NC State Board of Dental Examiners
James Harrell, Jr., D.D.S., President,
NC Dental Society
Olson Huff, M.D., Former President,
NC Pediatric Society
Johanna Irving, D.D.S., M.P.H., Dental Director,
Wake County Human Services
James Lewis, D.D.S., Dental Director, Lincoln
Community Health Center, Durham
Barbara D. Matula, Director, Health Care
Programs, NC Medical Society Foundation
William E. Milner, D.D.S., M.P.H., Chair,
Special Care Committee, NC Dental Society
Carolyn Newman, C.D.A., President, NC
Dental Assistants Association
Sharon Nicholson-Harrell, D.D.S., M.P.H.,
Dental Director, FirstHealth Dental Care
Centers, Pinehurst
Barbara Hardee Parker, R.D.H., Member, NC
State Board of Dental Examiners
Bruce Parsons, M.B.A., Health Director,
Gaston County Health Department
John Sowter, D.D.S., Clinical Faculty,
UNC-CH School of Dentistry
John W. Stamm, D.D.S., Dean, UNC-CH
School of Dentistry
Terry Stevens, Program Coordinator, Mobile
Health Unit, Chatham County Health
Department
Ronald Venezia, D.D.S., M.S., Regional Dentist
Supervisor, NC DHHS, Fayetteville
J. Steven Cline, D.D.S., M.P.H., Chief, Dental
Health Section, NC DHHS (*ex-officio*)
Richard Perruzzi, Director, Division of Medical
Assistance, NC DHHS (*ex-officio*)

Staff to the panel:

**NC Institute of Medicine
Task Force on Dental Care Access**

Final Report

Executive Summary

Charge to the Task Force

The North Carolina General Assembly charged the NC Department of Health and Human Services (DHHS) to evaluate and recommend strategies to increase the level of participation of dentists in the Medicaid dental

program and to improve the Medicaid program's provision of preventive services to Medicaid patients. Specifically, the Department was directed to develop strategies for:

1. Assisting dentists in increasing the number of their Medicaid patients;
2. Increasing Medicaid patients' access to quality dental services;
3. Informing dental professionals on how to better integrate Medicaid patients into their practices; and
4. Expanding the capacity of local health departments and community health centers to provide properly diagnosed and supervised preventive dental services such as sealant, fluoride, and basic hygiene treatments.

The Department was directed to report its progress and recommendations to the Senate and House Appropriations Committee on Human Resources by April 30, 1999. David H. Bruton, M.D., Secretary of the DHHS, asked the NC Institute of Medicine (NC•IOM) to undertake a study of this problem and to make recommendations. The NC•IOM convened a task force of prominent North Carolina dentists, dental professionals, public health practitioners, physicians, and other interested citizens to study this issue. The NC•IOM Task Force on Dental Care Access was chaired by the Honorable Dennis Wicker, Lt. Governor of North Carolina. Sherwood Smith, Jr., Chairman of the Board of Carolina Power & Light Co., served as Vice-Chair. The Task Force met on four occasions, and took comments from the public during two of the meetings.

Overview of the Problem

Inadequate access to dental care is commonplace among children of families living in poverty. Nationally, among parents who feel that their children have unmet health care needs, 57% report the unmet need is for dental care—nearly twice the number reporting a need for medical care. A lack of dental care for low-income and Medicaid-eligible adults and children often results in severe or persistent pain, inability to eat, swollen faces, and increased susceptibility to other

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medical conditions. For children, failure to prevent dental disease can result in missed school days, dysfunctional speech, and compromised nutrition.

Under the federal Medicaid statute, all states are required to provide dental services to Medicaid eligible children. However, dental services for adults are optional. North Carolina, like 26 other states, provides dental coverage for all eligible Medicaid recipients. While dental services are covered under the Medicaid program, use of these services is very low. On average, only 20% of Medicaid recipients visited the dentist in state fiscal year 1998. This is based on the number of Medicaid recipients who used any dental services during the year, thus the number probably overstates the number of Medicaid recipients who receive comprehensive dental services. Use of services varies by both age and geographic location. For example, young children are the least likely to use dental services. Once a child enters the school system, the use of dental services increases.

Table 1. Percentage of Medicaid Recipients who Used Dental Services by Age, 1998.

Use of dental services also varies by county. The dental participation rate among Medicaid recipients ranged from a low of 10% in Alexander county, to a high of 26% in Henderson and New Hanover counties.

A number of factors influence the low use of dental services among North Carolina Medicaid recipients. One of the primary problems is the low dentist participation rate in the Medicaid program. Recipients often have difficulties finding dentists who are willing to serve them. Only 16% of North Carolina dentists actively participate in Medicaid. In fact, North Carolina has one of the lowest rates of actively participating dentists in the country. There are only six states with lower rates of actively participating dentists. Dentists are reluctant to participate in the Medicaid program because of the low payment rates. On average, North Carolina pays dentists approximately 62% of their usual, customary and reasonable charges (UCR) for 44 of the most common procedures for children,

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Age Percent of Recipients Who

Used Services

<1 0.1%

1-5 12.2%

6-14 26.7%

15-20 18.9%

21-64 19.3%

65+ 16.4%

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and 42% of UCR for other procedures. Yet, the average overhead cost of operating a dental practice is approximately 60% of total revenues. Thus, many dentists lose money, or at best, can only cover their overhead costs when treating Medicaid patients. In addition, dentists are concerned with the high rate of broken appointments and poor patient adherence among Medicaid recipients.

The problem of low dental participation rates in the Medicaid program is compounded by the overall shortage of dentists and dental professionals in North Carolina. North Carolina ranks 47th in the supply of dentists to serve its population. In North Carolina, there are 38 dentists per 100,000 population compared to the national rate of 60 dentists. Currently, 3,037 dentists practice in North Carolina, with 81% in general dentistry. In addition, there is a maldistribution of dentists in the state. There are four counties with no dentist in practice; another 36 counties have no dentist currently offering services to Medicaid recipients. The NC Office of Research, Demonstrations and Rural Health Development estimates that 79 counties qualify as nationally recognized dental professional shortage areas. Thus, in many communities there are insufficient dentists to serve the insured population, let alone low-income Medicaid or uninsured populations. A similar shortage exists for dental hygienists. With the shortage of dentists and hygienists in private practice, efforts will need to be made to recruit dental professionals to work specifically in underserved areas and in public health and community clinics serving underserved populations.

Another factor is the shortage of pediatric dentists in the state. Care for very young children is difficult and may require hospital care for severe dental caries. Pediatric dentists are specially trained to provide this care in a hospital under general anesthesia. But there are only 47 actively practicing pediatric dentists in the state, and the number of pediatric dentists is declining. General dentists are often unwilling to treat very young children. The lack of accessibility of dental services, and the low utilization of dental services among low-income children contributes to the large number of young children with untreated dental disease. Approximately 25% of all children entering kindergarten each year in North Carolina have untreated dental decay. And unlike older children, the rate of untreated dental disease among very young children has not been declining over time. Much of this disease could be prevented if children had access to preventive services. Providing fluoride varnish to very young children could help to reduce the incidence of dental disease among this population by approximately 40%.

Not only do young children have particular problems accessing dental services, but people in institutional or group home settings, especially

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Severe baby bottle tooth decay in an 18-month old child (photo courtesy North Carolina Dental Health Section, DHHS)

older adults and others suffering from dementia and other disabilities, also have unique access problems.

Finally, Medicaid recipients do not always understand the need to obtain regular dental services or they experience other non-financial barriers to care that prevent them from effectively using dental services. Medicaid recipients who are interested in obtaining dental care for themselves or their children are sometimes discouraged by the difficulty in obtaining timely appointments. Dental appointments are often booked months in advance and many practices limit the services provided to children. Many low-income and Medicaid working populations find it difficult to take time off of work to see a dentist. In addition, the lack of available child or elder care makes it difficult for some families to access services. The absence of personal and/or public transportation is also a barrier to receiving care.

The Task Force recommendations are grouped in the following areas: a) increasing dentist participation in the Medicaid program; b) increasing the overall supply of dentists and dental hygienists in the state with a particular focus on efforts to recruit dental professionals to serve underserved areas and to treat underserved populations; c) increasing the number of pediatric dentists practicing in North Carolina and expanding the provision of preventive dental services to young children; d) training dental professionals to treat special needs patients and designing programs to expand access to dental services for these populations; and e) educating Medicaid recipients about the importance of ongoing dental care, and developing programs to remove non-financial barriers to the use of dental services.

[Increasing dentist participation in the Medicaid program](#)

- Recommendation #1: Increase the Medicaid reimbursement rates for all dental codes to 80% of UCR. The state's cost of this increase along with an anticipated 10% increase in utilization would be \$8.7 million in SFY 1999-2000, and \$9.57 million in SFY 2000-01.
- Recommendation #2: The North Carolina dental societies should

develop an outreach campaign to encourage dentists in private practice to treat low-income patients. (Note: This is contingent on increasing Medicaid reimbursement rates). Does not require legislation.

- Recommendation #3: The Division of Medical Assistance should work with the NC Dental Society, the Old North State Dental Society, the NC Academy of Pediatric Dentistry, the Dental Health Section of the NC Department of Health and Human Services, the UNC-CH

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Options to increase dentist participation in the Medicaid program

School of Dentistry, and other appropriate groups to establish a Dental Advisory Committee to work with the Division of Medical Assistance on an ongoing basis. The Advisory Committee should also include Medicaid recipients or parents of Medicaid-eligible children. Does not require legislation.

[Increasing the overall supply of dentists and dental hygienists in the state with a particular focus on efforts to recruit dental professionals to practice in underserved areas and to treat underserved populations](#)

- Recommendation #4: Establish an Oral Health Resource Program within the Office of Research, Demonstrations and Rural Health Development to enhance ongoing efforts to expand the public health safety net for dental care to low-income populations in North Carolina. The state cost of this program would be \$1.0 million for each year for three years. The majority of the funds would be used to provide seed grants to communities to leverage private funds to establish or expand community facilities providing dental care.

- Recommendation #5: The NC Dental Society should seek private funding from the Kate B. Reynolds Charitable Trust, the Duke Endowment, and other private sources to establish a NC Dental Care Foundation for the purpose of assuring access to needed preventive and primary dental care services in underserved communities and for underserved populations in our state. Does not require legislation.

- Recommendation #6: Revise the NC Dental Practice Act to permit specially trained public health dental hygienists to perform oral health screenings as well as preventive and educational services outside the public school setting under the direction of a licensed public health dentist.

Suggested legislative language: N.C.G.S. 90-233 should be amended to read as follows:

Practice of dental hygiene. (a) A dental hygienist may practice only under the supervision of one or more licensed dentists.

Subsection (a) shall be deemed to be complied with in the case of dental hygienists if

- i. employed by or under contract with a county or state government dental public health program,
- ii. specially trained by the NC Dental Health Section as public health dental hygienists,
- iii. while performing their duties for the persons officially served by the county or state government program by whom he or she is

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Expanding the dental safety-net

employed or has a contract to practice,

iv. and under the direction of a duly licensed dentist employed by that program or by the NC Dental Health Section.

- Recommendation #7: The NC•IOM, in conjunction with the NC State Board of Dental Examiners, the NC Dental Society, the Old North State Dental Society, NC Dental Hygiene Association, the NC Primary Health Care Association, the Dental Health Section and NC Office of Research, Demonstrations and Rural Health Development of the NC Department of Health and Human Services, should explore different methods to use dental hygienists to expand preventive dental services to underserved populations in federally funded community or migrant health centers, state-funded rural health clinics or not-for-profit clinics that serve predominantly Medicaid, lowincome or uninsured populations. A report should be given to the Governor and the Joint Legislative Commission on Governmental Operations no later than March 15, 2000.

- Recommendation #8: Existing and any future loan repayment programs established with the purpose of attracting dental professional personnel to work in rural or underserved areas should be accompanied by more stringent requirements to ensure that the dentists serve low-income and Medicaid patients. Does not require legislation.

- Recommendation #9: The Board of Governor's Scholarship Program and other state tuition assistance programs should carry a requirement of service in underserved areas upon graduation. Would require legislation.

- Recommendation #10: The General Assembly should direct the NC State Board of Dental Examiners to establish a licensure-by-credential procedure that would license out-of-state dentists and dental hygienists who have been practicing in a clinical setting in other states with the intent of increasing the number of qualified dental practitioners in the state. Specifically, the NC State Board of Dental Examiners should consider the following:

- Graduation from an accredited school
- Passage of another state or regional examination
- Proof of current licensure in another state

- Minimum of two years of clinical dental experience
- Personal interview of applicant
- Minimum of three professional references
- Criminal record is checked and certification required to assure that no criminal charges are pending

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*Increasing the number
of qualified dental
practitioners in the
state*

- Passage of written examination testing knowledge and skills of infection control

- Passage of the NC dental jurisprudence exam

The Board shall establish a timely process for reviewing applications for licensure-by-credential. Specifically, the process should be completed in a timely fashion to allow the NC Office of Research, Demonstrations and Rural Health Development to recruit dentists to practice in medically underserved areas in those cases where loan repayment arrangements must be made.

- Recommendation #11. The NC State Board of Dental Examiners should be required to evaluate the competencies required by the different regional examinations to determine if these examinations ensure the same level of professional competence required to pass the North Carolina clinical examination. The NC State Board of Dental Examiners shall report its findings to the Governor and the presiding officers of the North Carolina General Assembly no later than March 15, 2001. If the Board concludes that participation in one or more regional examinations would not ensure minimum competencies, the Board shall describe why these other examinations do not meet North Carolina's standards and how the quality of care provided in North Carolina could negatively be affected by participating in such examinations. If the Board finds these exams to be comparable, procedures should be developed for accepting these examinations as a basis for North Carolina licensure in the year following this determination.

- Recommendation #12: The NC State Board of Dental Examiners should consider a change in the wording in the regulations governing dental assistants in order to increase access to dental services for underserved populations. May require change in regulations.

[Increasing the number of pediatric dentists practicing in North Carolina and expanding the provision of preventive dental services to young children.](#)

- Recommendation #13: Increase the number of positions in the pediatric

residency program at the UNC-CH School of Dentistry from two per year to a total of four per year. The cost of this proposal would be \$93,440 in the SFY 1999-2000 (to cover the costs of two pediatric residents and one dental assistant); \$186,880 in SFY 2000-01 (to cover the costs of four pediatric residents and two dental assistants); and \$252,880 in SFY 2001-02 and thereafter (to cover the costs of six pediatric residents and two dental assistants). Does require legislation.

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*Increasing the
availability of
preventative and
restorative dental
services for children*

Photo courtesy UNC-CH
School of Dentistry

- Recommendation #14: The NC•IOM, in conjunction with the NC Academy of Pediatric Dentistry, the UNC-CH School of Dentistry, the NC Area Health Education Centers (AHEC) program, and the Dental Public Health Program within the UNC-CH School of Public Health, should explore the feasibility of creating additional pediatric dental residency program(s) at East Carolina University, Carolinas Healthcare System, and/or Wake Forest University. A report should be given to the Governor and the Joint Legislative Commission on Governmental Operations no later than March 15, 2000. The report should include the costs of establishing additional pediatric dental residency program(s) and possible sources of funding for pediatric dental residency programs, such as state appropriations or the Health Resources and Services Administration (HRSA), within the US Department of Health and Human Services.
- Recommendation #15: The Division of Medical Assistance should add American Dental Association procedure code 1203 to allow dentists to be reimbursed for the application of dental fluoride varnishes without the administration of a full prophylaxis. This recommendation would require a new appropriation. The cost to the state would be approximately \$500,000 in SFY 1999-2000, and \$550,000 in SFY 2000-01.
- Recommendation #16: Fund the Ten-Year Plan for the Prevention of Oral Disease in Preschool-Aged Children as proposed by the NC Dental Health Section. The goals of this effort would be to reduce tooth decay by 10% in all preschool children statewide in ten years; and reduce tooth decay by 20% in high-risk children statewide in ten years. The Ten-Year Plan would expand the use of public health dental hygienists from school-based settings to community-based settings

such as day care centers, Smart Start programs, Head Start Centers and other community settings where high-risk children are located. The program would provide health education to mothers and caregivers, apply fluoride varnishes to young children, use dental sealants when appropriate, and provide continuing education courses for any professional who has contact with young children. The Ten-Year Plan would cost \$966,028 in SFY 1999-2000 (to hire 10 public health dental hygienists, one field dentist supervisor, and four health educators), \$1,827,673 in SFY 2000-2001 (to hire an additional 10 public health hygienists, one field dentist supervisor and maintain staff hired in SFY 99-00 plus \$165,000 for program evaluation), and \$2,288,418 in SFY 2001-2002 (to hire an additional 10 public health hygienists, maintain staff hired in SFY 99-00 and SFY 00-01, plus \$35,000 to complete the program evaluation).

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- Recommendation #17: The NC Dental Society, the NC Academy of Pediatric Dentistry, the Old North State Dental Society, the NC Pediatric Society and the NC Academy of Family Physicians should jointly review and promote practice guidelines for routine dental care and prevention of oral disease as well as guidelines for referring children for specific dental care, to provide all children with early identification and treatment of oral health problems and to ensure that caregivers are provided the information necessary to keep children's teeth healthy. Does not require legislation.

- Recommendation #18: The Division of Medical Assistance should develop a new service package and payment method to cover early caries screenings, education, and the administration of varnishes provided by physicians and physician extenders to children between the ages of nine and 36 months. This recommendation will require a new appropriation. The cost to the state will be approximately \$1.0 million in SFY 1999-2000, and \$1.1 million in SFY 2000-01.

- Recommendation #19: Support the enactment of HB 905 or SB 615 which would expand NC Health Choice to cover sealants, fluoride treatment, simple extractions, stainless steel crowns and pulpotomies. Requires legislation.

[Training dental professionals to treat special needs patients and designing programs to expand access to dental services.](#)

- Recommendation #20: The UNC-CH School of Dentistry, the NC AHEC system, and the NC Community Colleges that offer educational programs for dentists, dental hygienists and dental assistants should intensify and strengthen special-care education programs to train professionals on child management skills and how to provide quality oral health services to residents and patients in group homes, long term care facilities, home health, and hospice settings. Does not require legislation.

- Recommendation #21: Support the development of statewide

comprehensive

care programs designed to serve North Carolina's special care and difficult-to-serve populations. Does not require legislation.

[Educating Medicaid recipients about the importance of ongoing dental care, and developing programs to remove non-financial barriers to the use of dental services.](#)

- Recommendation #22: The Division of Medical Assistance, in conjunction with the NC Dental Health Section of the NC Department of Health and Human Services, should develop or modify community

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Addressing the dental health needs of our most vulnerable citizens

Educating Medicaid recipients about the importance of dental care

education materials to educate Medicaid recipients about the importance of ongoing dental care. Does not require legislation.

- Recommendation #23: The NC Division of Medical Assistance should pilot test dental care coordination services to improve patient compliance and enhance the ability of low-income families and people with special health care needs to overcome non-financial barriers to dental care. The Division of Medical Assistance should evaluate the program to determine if care coordination increases utilization of dental care services. The evaluation should be reported to the Governor and the Presiding Officers of the NC General Assembly no later than January 15, 2001. Note: The Division may be able to utilize existing care coordinators in the pilot (for example, Health Check for children or Carolina Access coordinators). If the program is successful, funding may be needed to expand the program statewide. Because of the reporting requirements, this provision should be added as a special provision in the SFY 1999-2000 appropriations bill. Does not require legislation.

[Legislation Needed in 1999 General Assembly](#)

The legislative recommendations fall into three areas: appropriations, substantive, and issues that must be further studied and reported back to the NC General Assembly.

[Appropriations Needed](#)

If all of the Task Force's recommendations are adopted, the total cost to the state in FY 1999-2000 will be: \$12,289,468 and \$ 14,234,553 in

2000-01. The costs are distributed as described in Table 2.

Substantive Legislation

In addition to the appropriations items, some of the other Task Force recommendations will require legislative action:

- Revise the NC Dental Practice Act to permit specially trained public health dental hygienists to perform oral health screenings as well as preventive and educational services outside the public school setting under the direction of a licensed public health dentist (Recommendation #6).
- The Governor's Scholarship Program and other state tuition assistance programs should carry a requirement of service in underserved areas upon graduation (Recommendation #9).

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Appropriation Items SFY 1999-

2000

SFY 2000-01

Increase the Medicaid reimbursement rates for all dental codes to 80% of UCR (Recommendation #1).

\$8.7 million \$9.57 million*

Establish an Oral Health Resource Program within the Office of Research, Demonstrations and Rural Health Development to expand the public health safety net for dental care to low-income populations in North Carolina (Recommendation #4).

\$1.0 million \$1.0 million

Increase the number of positions in the pediatric residency program at the UNCCH School of Dentistry from two per year to a total of four per year (Recommendation #13).

\$93,440 \$186,880

The Division of Medical Assistance is directed to add ADA procedure code 1203 to allow dentists to be reimbursed for the application of dental fluoride varnishes (Recommendation #15).

\$500,000 \$550,000*

Fund the Ten-Year Plan for the Prevention of Oral Disease in Preschool-Aged Children as proposed by the NC Dental Health Section (Recommendation #16).

\$996,028 \$1,827,673

The Division of Medical Assistance

should develop a new service package and payment method to cover early caries screenings, education and the administration of varnishes provided by physicians and physician extenders to children between the ages of nine and 36 months (Recommendation #18)

\$1.0 million \$1.1 million*

* Assumes a 10% increase in utilization in SFY 2000-01.

Table 2. Dental Appropriations Needed to Fulfill Task Force Recommendations

- The General Assembly should direct the NC State Board of Dental Examiners to establish a licensure-by-credential procedure to license out-of-state dentists and dental hygienists who have been practicing in other states with the intent of increasing the number of qualified dental practitioners in the state (Recommendation #10).
- Support the enactment of HB 905 or SB 615 which would expand NC Health Choice to cover sealants, fluoride treatment, simple extractions, stainless steel crowns and pulpotomies (Recommendation #19).

Further Studies and Reports

The Task Force suggests that several issues be studied further, and reported back to the Governor and NC General Assembly:

- The NC•IOM, in conjunction with the NC State Board of Dental Examiners, the NC Dental Society, the Old North State Dental Society, NC Dental Hygiene Association, the NC Primary Health Care Association, the Dental Health Section and NC Office of Research, Demonstrations and Rural Health Development of the NC Department of Health and Human Services, should explore different methods to use dental hygienists to expand preventive dental services to underserved populations in federally funded community or migrant health centers, state-funded rural health clinics or not-for-profit clinics that serve predominantly Medicaid, low-income or uninsured populations. A report should be given to the Governor and the Joint Legislative Commission on Governmental Operations no later than March 15, 2000 (Recommendation #7).
- The NC State Board of Dental Examiners should evaluate the competencies required by the different regional examinations to determine if these examinations ensure the same level of professional competence required to pass the North Carolina clinical examination. The NC Board of Dental Examiners should report its findings to the Governor and the Presiding Officers of the NC General Assembly no later than March 15, 2001 (Recommendation #11).
- The NC•IOM, in conjunction with the NC Academy of Pediatric Dentistry, the UNC-CH School of Dentistry, the NC AHEC program, and the Dental Public Health Program within the UNC-CH School of Public Health, should explore the feasibility of creating additional

pediatric dental residency program(s) at East Carolina University Carolinas Healthcare System, and/or Wake Forest University. A report should be given to the Governor and the Joint Legislative

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Commission on Governmental Operations no later than March 15, 2000 (Recommendation #14).

- The NC Division of Medical Assistance should pilot test dental care coordination services to improve patient compliance and enhance the ability of low-income families and people with special health care needs to overcome non-financial barriers to dental care. The Division of Medical Assistance should evaluate the program to determine if care coordination increases utilization of dental care services. The evaluation should be reported to the Governor and the Presiding Officers of the NC General Assembly no later than January 15, 2001 (Recommendation #23).

Conclusion

The issues and problems addressed in this report are multifaceted and complex, requiring multiple strategies and actions by both the public and private sectors. Increasing the Medicaid reimbursement rates is a necessary, but not sufficient, response to the problem of inadequate access to dental services. North Carolina needs to simultaneously increase the supply of dentists and dental hygienists; build a capacity among safety-net providers to address the dental care needs of low-income, Medicaid-eligible and special needs populations; and educate these groups about the importance of on-going comprehensive dental care. In addition, more emphasis must be placed on dental education and prevention strategies, to prevent costly and painful dental disease, especially among children. The 23 recommendations in this report, if acted upon, would go a great distance toward the goal of assuring adequate preventive and curative dental health care for those groups within our state's population who presently suffer the consequences of inadequate dental care.

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Final Report

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Children get used to feeling constant pain. They go to sleep with it. They go to school with it. Sometimes their teachers are alarmed and try to get them to a clinic. But it's all so slow and heavily encumbered with red tape and waiting lists . . . that dental care is long delayed. Children live for months with pain that grown-ups find unendurable. The gradual attrition of accepted

pain erodes their energy and aspirations. - Jonathan Kozol,
Savage Inequities: Children in America's Schools

Charge to the Task Force

The North Carolina General Assembly charged the NC Department of Health and Human Services (DHHS) to evaluate and recommend strategies to increase the participation level of dentists in the Medicaid dental program and also to improve the Medicaid program's provision of preventive services to Medicaid patients. The Department was directed to develop strategies specifically for:

- (1) Assisting dentists in increasing the number of Medicaid patients they treat;
 - (2) Increasing Medicaid patients' access to quality dental services;
 - (3) Teaching dental professionals how to better integrate Medicaid and other low-income patients into their practices;
- and
- (4) Expanding the capacity of local health departments and community health centers to provide properly diagnosed and supervised preventive dental services such as sealants, fluoride, and basic hygiene treatments to low-income patients.

The Department was directed to report its progress and recommendations to the Senate and House Joint Appropriations

Subcommittee on Human Resources by April 30, 1999. David H. Bruton, M.D., Secretary, NC Department of Health and Human Services, asked the NC Institute of Medicine (NC•IOM) to study
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this problem and to make recommendations. The NC•IOM formed a task force of prominent North Carolina dentists, dental professionals, public health practitioners, physicians, and other business and industry leaders to study this issue. The Honorable Dennis Wicker, Lieutenant Governor, chaired the NC•IOM Task Force on Dental Care Access. Sherwood Smith, Jr., Chairman of the Board of Carolina Power & Light Company, served as Vice-Chair.

The other Task Force members were:

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Barbara Hardee Parker, R.D.H., Member, NC State Board of Dental Examiners

Bruce Parsons, M.B.A., Health Director, Gaston County Health Department

John Sowter, D.D.S., Clinical Faculty, UNC-CH School of Dentistry

John W. Stamm, D.D.S., Dean, UNC-CH School of Dentistry

Terry Stevens, Program Coordinator, Mobile Health Unit, Chatham County Health Department

Ronald Venezia, D.D.S., M.S., Regional Dentist Supervisor, DHHS, Fayetteville

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J. Steven Cline, D.D.S., M.P.H., Chief, Dental Health Section, DHHS (*ex-officio*)

Richard Perruzzi, Director, Division of Medical Assistance, DHHS (*ex-officio*)

The full Task Force met on four occasions, and subcommittees met once, to consider these issues and to make recommendations. They heard testimony from interested groups during two of their committee meetings.

Overview of the Problem

Inadequate access to dental care is commonplace among children of families living in poverty. Nationally, among parents who feel that their children have unmet health care needs, 57% report that the unmet need is for dental care—nearly twice the number reporting a need for medical care (Mueller et al., 1998). A lack of dental care for low-income and Medicaid-eligible adults and children often results in severe or persistent pain, inability to eat, swollen faces, and increased susceptibility to other medical conditions (Wagner, 1998). For children, failure to prevent dental disease can result in missed school days, dysfunctional speech, and compromised nutrition (Spisak and Holt, 1999). Dental decay is the single most common non-limiting health problem among school children, four times more common than asthma (the second most common problem) (Oral Health Coordinating Committee, 1993). The inability to access dental services sometimes results in preventable visits to hospital emergency rooms and hospitalizations. In 1997, for example, Medicaid paid \$1,686,565 for 62,000 preventable emergency dental visits

(DHHS, 1997).

Under the federal Medicaid statute, all states are required to provide dental services to Medicaid-eligible children. However, dental services for adults are optional. North Carolina, like 26 other states, provides dental coverage for all eligible Medicaid recipients. While dental services are covered under the Medicaid program, use of these services is very low. On average, only 20% of Medicaid recipients visited the dentist in state fiscal year 1998 (NC DHHS, 1999). This is based on the number of Medicaid recipients who used any dental services during the year, thus the number probably overstates the number of Medicaid recipients who receive comprehensive dental services. Use of services varies by both age and geographic location (Perruzzi, 1999). For example, young children are the least likely to use dental services.

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For children, failure to prevent dental disease can result in missed school days, dysfunctional speech, and compromised nutrition

On average, only 20% of Medicaid recipients visited the dentist in state fiscal year 1998

Once a child enters the school system, the use of dental services increases.

Use of dental services also varies by county. The dental participation rate among Medicaid recipients ranged from a low of 10% in Alexander county, to a high of 26% in Henderson and New Hanover counties (NC DHHS, 1999).

A number of factors influence the low use of dental services among North Carolina Medicaid recipients. The primary reason is the low dentist participation rate in the Medicaid program. The overall shortage of dental professionals and their maldistribution across the state compounds the problems Medicaid recipients have in locating a dentist who will take them as patients. Very young children have special difficulties accessing services because general dentists are often reluctant to treat them, and the number

of pediatric dentists practicing in the state is extremely limited. In addition to children, institutionalized older adults and those with disabilities have unique access problems. Finally, Medicaid recipients may not recognize the importance of obtaining regular dental care and often experience other access barriers that prevent them from utilizing services when they are available. Each of these problems is discussed in more detail below.

Low provider participation in the Medicaid program

Recipients often have difficulties finding dentists who are willing to serve them. Only 16% of North Carolina dentists actively participated in Medicaid in 1998 (NCSL, 1998). Active participation is defined as having received payments of greater than \$10,000 in a year. In fact, North Carolina has one of the lowest rates of actively participating dentists in the country. Only six states had lower rates.

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Age Percent of Recipients Who

Used Services

<1 0.1%

1-5 12.2%

6-14 26.7%

15-20 18.9%

21-64 19.3%

65+ 16.4%

Table 1. Percentage of Medicaid Recipients who Used Dental Services by Age, 1998

Only 16% of North Carolina dentists actively participated in Medicaid in 1998

The primary reason dentists cite for their reluctance to participate in the Medicaid program is low reimbursement rates. On average, North Carolina pays dentists approximately 62% of their usual, customary, and reasonable charges (UCR) for the 44 most common dental procedures for children, and 42% of UCR for other procedures (Perruzzi, 1999). Yet, the average cost of operating a dental practice (overhead) is approximately 60% of total revenues (Children's Dental Health Project, 1998). In addition, dental students graduate with significant student loans, making it more difficult for younger dentists to treat Medicaid patients at low reimbursement rates. In 1997, dentists graduating from a four-year program owed, on average, \$81,688 (Myers and Zwemer, 1998). Thus, many dentists lose money, or at best, can only cover their overhead costs when treating Medicaid patients.

High cancellation and "no-show" rates for dental appointments

by the Medicaid population also are important factors contributing to the low levels of provider participation (Brehm, 1996; NC Task Force on Dental Care for Children, 1998; Nainar et al., 1996). Nationally, the American Dental Association (ADA) reports that 30% of Medicaid patients typically fail to keep their appointments (ADA Conference, 1998). Private practitioners in North Carolina echoed this same experience (Bolton, 1999). Patient non-compliance and other bureaucratic complexities were also cited as reasons for the low Medicaid provider participation rate (Brehm, 1996; NC Task Force on Dental Care for Children, 1998; Lancaster, 1999; Bolton, 1999).

The Division of Medical Assistance has made significant changes in program operations to simplify the program for dentists. For example, the state uses the standardized ADA claims form and procedure codes, accepts electronic submission of claims, issues payments electronically to dentists and other Medicaid providers, and has eliminated most of the prior approval requirements (Perruzzi, 1999). In addition, provider representatives will visit dental practices to assist dentists and their staff with general Medicaid guidelines, policy changes, billing information and claim follow-up procedures. While the state has made significant headway in eliminating administrative barriers to participation, absent a meaningful increase in reimbursement, increased dental participation in the Medicaid program is unlikely to occur.

Shortage and maldistribution of dental professionals

The overall shortage and maldistribution of dentists and dental hygienists compounds the low dentist participation rate in the

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The primary reason dentists cite for their reluctance to participate in the Medicaid program is low reimbursement rates

Medicaid program. North Carolina ranks 47th in the supply of dentists to serve its population (Morgan and Morgan, 1997). In North Carolina, there are 38 dentists per 100,000 population compared to the national ratio of 60:100,000. Currently, 3,037 dentists practice in North Carolina, with 81% practicing general dentistry (Cecil G. Sheps Center for Health Services Research, 1999). North Carolina has only one dental school at UNC-CH, with a class size of approximately 75. About 50 of these graduates

each year take the North Carolina licensure examination and enter practice in North Carolina.

Like other health professionals, dentists are primarily located in urban communities, although access to dentists in low-income parts of urban counties may also be difficult. There are four counties with no dentists in practice; another 36 counties have no dentist currently offering services to Medicaid recipients. The NC Office of Research, Demonstrations and Rural Health Development estimates that 79 of the state's 100 counties qualify as nationally recognized dental health professional shortage areas, which is defined as having less than one full time equivalent (FTE) dentist to every 5,000 people¹ (Bernstein, 1999). Thus, in many communities there are too few dentists to serve the insured population, much less the low-income Medicaid or uninsured populations.

The Cecil G. Sheps Center for Health Services Research at UNC-CH conducted an analysis of the number of dentists it would take to address the dental shortage areas, coming up with a range of 88 to 733 dentists (Cecil G. Sheps Center for Health Services Research, 1999). The state would need to add 88 FTE dentists to reach a minimum of one FTE dentist for every 5,000 people (a figure that is considered to be a dental health professional shortage area by the federal Bureau of Primary Health Care). To reach a ratio of one FTE dentist for every 3,000 people,² the state would need 733 more dentists to treat patients in

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¹ The Bureau of Primary Health Care within the US Department of Health and Human Services defines a dental health professional shortage area as an area that has fewer than one FTE dentist for every 5,000 people, or fewer than one FTE dentist for every 4,000 people in communities with high poverty rates or lack of fluoridated water (Snuggs, 1999). A dentist working 40 hours is considered a full time dentist (FTE).

² The Bureau of Primary Health Care also looks at contiguous counties to determine if the county has excess capacity to meet the dental shortage of the surrounding county. Contiguous counties with more than one FTE dentist for every 3,000 people are not considered to have excess capacity.

*The overall shortage
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underserved counties. This latter figure includes only hours a dentist is actually treating patients. Presumably, the actual number

of dentists needed in North Carolina falls somewhere in between.

Since 1995, there has been an average net gain of 43.7 practicing dentists per year in North Carolina, a figure which takes into account the fact that each year an average of 51.75 licensed and actively practicing dentists in the state stop practicing in North Carolina (either due to death, disciplinary action of the Board, retirement, or relocation to another state) (NC State Board of Dental Examiners, 1999). This amounts to a 1.5% increase in actively practicing licensed dentists annually. This increase matches the state's annual population growth of 1.7% annually (NC Office of State Planning, 1998), so does little to address the overall shortage of dentists in the state. With the shortage of dentists in private practice in many communities, efforts need to be made to recruit dentists who will work in underserved areas and/or public health and community clinics serving underserved populations.

The problem of dental workforce supply is equally severe for dental hygienists. There are 3,395 licensed practicing dental hygienists in the state with similar maldistribution problems (Cecil G. Sheps Center for Health Services Research, 1999). Five counties have no practicing dental hygienists and 22 counties have more than 5,000 people per dental hygienist. Hygienists are licensed to provide certain educational and preventive services, including placement of sealants and applying topical fluorides upon prescription by a dentist. Hygienists in North Carolina provide these services under the direct on-site supervision of a licensed dentist. At present, public health dental hygienists working in the public schools have increased flexibility to provide preventive and education services to school children.

Access barriers for young children

Dental decay is one of the nation's most common childhood diseases. Forty-four percent of all children experience dental disease in contrast to asthma (11%), hayfever (8%) or chronic bronchitis (4%) (Oral Health Coordinating Committee, 1993). North Carolina has made significant progress in the last 30-40 years in preventing dental decay among children. However, the state's youngest children have not benefited by the same reduction in the prevalence of dental disease. More than 31,000 children, or

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36% of all children entering kindergarten in this state have a history of dental caries. Approximately 25% of all children in this age group have untreated dental disease (Rozier, 1999). Most decay can be found in a relatively small number of children—30% of kindergarten students have about 95% of all tooth decay in this age group. Early childhood caries in young children are much more prevalent in low-income populations and in rural communities without fluoridated water, and can lead to severe oral and systemic health consequences (Rozier, 1999; Spisak and Holt, 1999).

Care for very young children is often difficult. The American Academy of Pediatric Dentistry recommends that children see a dentist as soon as they have teeth, or within their first year of life (AAPD, 1998). If dental disease among young children is left untreated, it can necessitate that dental care be delivered under general anesthesia in a hospital environment, which greatly increases the cost of treating a normally preventable disease. Pediatric dentists are specially trained to provide this care in a hospital under general anesthesia, but only 47 pediatric dentists are actively practicing in the state. While general dentists are trained to treat children in an outpatient setting, general dentists are often unwilling to treat very young children. Few general dentists have hospital clinical privileges that would enable them to provide dental treatment under general anesthesia.

Access problems for other special needs populations

Not only do young children have particular problems accessing dental services, but people who are homebound or living in institutional or group home settings also have special access problems.

This problem is especially severe for older adults and others suffering from dementia, mental illness, and other disabilities. The demand for dental care in older adults is increasing as people are living longer and, due to water fluoridation and other dental advances, are more likely to have kept their teeth throughout their lifetime. Older adults are the fastest growing segment of our population. This population will burgeon between the years 2010 and 2030 when the “baby boom” generation reaches age 65 (Day, 1996).

Roughly 44,000 North Carolina citizens reside in nursing homes (Division of Facility Services, 1999). Approximately 75% of all nursing home residents are Medicaid recipients (Jenkins, 1999). A 1991 study suggested that long-term care facilities found it very

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*People who are
homebound or living in
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Moderate baby bottle tooth decay
in a four year old child (photo
courtesy NC Dental Health
Section, DHHS).

difficult to meet the dental needs of their patients, with only 30% of facilities reporting that they could obtain needed dental care for their residents (Berkey, 1991). In addition to the institutionalized adults, there are other adults who, by reason of their physical or mental status, are unable to easily access dental services in the community. For example, there are approximately 26,000 people living in assisted living homes (Barrick, 1999), 54,000 people suffer from mild-to-severe Alzheimer’s disease (NC DHHS, 1999), 2,000 adults participate in adult day care programs (Johnson, 1999), and 158,000 people are cared for by home health agencies (Keene, 1999). Common among each of these groups is their need for special care dentistry and their inability to demand the care they need, much less gain access.

Removing non-financial barriers to dental services and educating Medicaid recipients about the importance of regular dental care.

Medicaid recipients who are interested in obtaining dental care for themselves or their children are sometimes discouraged by the difficulty in obtaining timely appointments (NC Task Force on Dental Care for Children, 1998). Appointments are often booked months in advance in some public health department dental clinics and private practices, and many practices limit the services provided to children. Many low-income and Medicaid-eligible

working populations find it difficult to take time off of work to see a dentist. In addition, the lack of available child or elder care makes it difficult for some families to access dental services. The absence of personal and/or public transportation is also a barrier to receiving care (Shaw, 1997; OIG, 1996).

Another problem with maintaining optimal health for the low-income population in North Carolina is that Medicaid families sometimes make dental services a low priority. Many are simply unaware of the importance of good dental health. Sometimes they wait until they are in pain before seeking dental services (OIG, 1996; Milgrom, 1997; Isman and Isman, 1997). Thus, it is unlikely that all Medicaid recipients would seek dental services even if there was an adequate supply of participating dentists in the Medicaid program.

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Recommendations

The Task Force recommendations are grouped into five areas:

- (a) increasing dentist participation in the Medicaid program;
- (b) increasing the supply of dentists and dental hygienists in the state with a particular focus on recruiting dental professionals to practice in underserved areas and to treat underserved populations;
- (c) increasing the number of pediatric dentists practicing in North Carolina and expanding the provision of preventive dental services to young children;
- (d) training dental professionals to treat special needs patients and designing programs to expand access to dental services for these populations; and
- (e) educating Medicaid recipients about the importance of ongoing dental care, and developing programs to remove nonfinancial barriers to the use of dental services.

Increasing dentist participation in the Medicaid program

• *Recommendation #1: Increase the Medicaid reimbursement rates for all dental procedure codes to 80% of UCR.*

North Carolina must increase Medicaid reimbursement to dentists to more adequately cover dental costs. A survey of dentists in 1996 showed that 56% of dentists in the state would be willing to

see more Medicaid patients if rates were increased to 80% of the usual, customary and reasonable rates (Brehm, 1996). In addition, the federal Medicaid regulations provide that the states must assure that payments are sufficient to enlist enough providers so that dental care available under the plan is “available to recipients to the extent that those services are available to the general public” (42 C.F.R. 447.204). This regulation, along with other sections of the Medicaid statute, have been used to successfully challenge the Medicaid dental reimbursement rates in California, Connecticut, New York, West Virginia, and Maine.³

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³ See, e.g., *Clark v. Kizer*, 758 F. Supp. 572 (E.D. Cal. Oct. 3, 1990)(order against state to increase reimbursement rates for dental care); and *Clark v. Kizer*, No. S-87-1700LKK (E.D. Cal. June 1989) (settlement reached after reimbursement rates increased and claims processing made more expeditious); *Dental Society of the State of New York v. Carey*, 61 N.Y.S.2d 330, 426 N.E.2d 362 (1984)(challenge to dental rates where plaintiff alleged that only 5 percent of the state’s dentists participated in Medicaid); *Spencer v. Concannon* (Maine)(unreported case settled by increasing dental reimbursement rates); *Randolph v. Weston* (West Virginia)(unreported case settled by increasing dental reimbursement rates).

A survey of dentists in 1996 showed that 56% of dentists in the state would be willing to see more Medicaid patients if rates were increased to 80% of the usual, customary and reasonable rates

The Task Force recommends that the state increase the dental reimbursement rates in an amount sufficient to bring the Medicaid reimbursement rates for all covered procedures up to 80% of UCR for practicing dentists in the state. The amount of money needed to calculate 80% of UCR was established using 80% of the UNC-CH faculty practice dental fee schedule. The cost of this increase, along with an anticipated 10% increase in utilization rates would be:

Federal \$17.4 million

County \$ 1.5 million

State \$ 8.7 million

Total \$27.4 million

With input from the North Carolina dental societies, the Division of Medical Assistance should develop a Medicaid fee schedule that ensures the total amount spent for dental services

stays within the state's overall dental budget. This would require new appropriations from the NC General Assembly.

- *Recommendation #2: NC dental societies should develop an outreach campaign to encourage dentists in private practice to treat low-income patients.* Does not require legislation.

The NC Dental Society and the Old North State Dental Society have agreed to launch an extensive outreach campaign designed to encourage local dentists to participate in the Medicaid program if the fees are increased as recommended. A peer-led outreach campaign is important, as dentists have more credibility among their peers than would the Medicaid staff. In addition to educating dentists about the increased reimbursement rates, the dental societies will educate practicing dentists about changes in the operation of the Medicaid program. Many dentists are unaware of the administrative improvements in the Medicaid dental program that have eliminated many of the past bureaucratic barriers to participation.

The dental societies will create a Medicaid education and marketing plan, and will educate society spokespeople to speak to local and district dental societies. In addition, the dental societies will work with the Division of Medical Assistance to develop a video that describes the recent fee increases and addresses other concerns that are frequently raised by dentists. The dental societies also will recognize dentists who actively treat Medicaid patients.

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The NC Dental Society and the Old North State Dental Society have agreed to launch an extensive outreach campaign designed to encourage local dentists to participate in the Medicaid program if the fees are increased as recommended

- *Recommendation #3: The Division of Medical Assistance should work with the NC Dental Society, the Old North State Dental Society, the NC Academy of Pediatric Dentistry, the Dental Health Section of the NC Department of Health and Human*

Services, the UNC-CH School of Dentistry, and other appropriate groups to establish a Dental Advisory Committee to work with the Division of Medical Assistance on an ongoing basis. The Advisory Committee should also include Medicaid recipients or parents of Medicaid-eligible children. Does not require legislation.

The Task Force recommends that the Division of Medical Assistance establish a Dental Advisory Committee comprised of representatives of the various dental societies, the Dental Health Section of NC Department of Health and Human Services, the UNC-CH School of Dentistry, other appropriate groups, and Medicaid recipients and/or parents of Medicaid-eligible children. The Advisory Committee would meet on an ongoing basis, and could alert the Division to emerging issues as they occur.

Increasing the overall supply of dentists and dental hygienists in the state with a particular focus on efforts to recruit dental professionals to serve underserved areas and to treat underserved populations

• *Recommendation #4: Establish an Oral Health Resource Program within the Office of Research, Demonstrations and Rural Health Development to enhance ongoing efforts to expand the public health safety net for dental care to low-income populations in North Carolina.*

While increasing dental reimbursement rates to private dentists is necessary, it will not address the maldistribution or overall shortage of dentists. Nor will simply increasing Medicaid reimbursement rates expand access to dental care for all Medicaid-eligible people or for the uninsured. Thus, the Task Force recommends that the state establish an Oral Health Resource Program within the Office of Research, Demonstrations and Rural Health Development. This program would be charged with recruiting dental professionals to serve in dental underserved areas, and providing seed grants to communities to leverage private funds to establish or expand community-based facilities that provide dental care. The state cost of this program would be \$1.0 million for each year for three years.

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The Oral Health Resource Program would help expand the safety net for dental care in North Carolina. While this safety net is only part of the solution to the problem of access to dental care, it is critical for communities to establish and/or maintain options for provision of dental treatment to those citizens with nowhere else to turn. The dental health safety net should work in partnership with the private dental care system, which in some areas of the state is stretched to capacity. The dental safety net includes dental clinics operated by county or district health departments, community or migrant health centers, rural

health clinics, private non-profit entities, and volunteer organizations that provide services at no charge (free clinics). For example, of the 87 local or district public health departments, 37 provide dental services (Dental Health Section, 1999). All of the public health dental clinics provide services to children, but only half provide services to adults. There are 19 migrant and community health centers (M/CHC) in North Carolina operating 49 clinical sites. Ten of the 19 M/CHCs operate dental clinics (Moore, 1999). In addition, there are 81 rural health clinics operating in North Carolina (Patterson, 1999). These clinics were established to alleviate health professional shortage areas in rural communities. Only four of the rural health clinics are currently set up to operate a dental clinic, although more are interested in doing so in the future (Bernstein, 1999). A recent survey also identified 12 volunteer clinics in the state that provide dental services (Francis and Rozier, 1998). Most reported treating patients in the afternoon and evening hours one or two days a week, and being in existence for five years or less. These programs typically have a limited number of patients they can serve in any given day. The public health departments, M/CHCs, rural health clinics, and volunteer clinics are part of the safety-net needed to augment the services of private dentists. Safety-net providers may utilize a variety of mechanisms to deliver care such as fixed clinics, mobile dental units, and portable dental equipment transported to a variety of patient populations lacking access to care.

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• *Recommendation #5: The NC Dental Society should seek private funding from the Kate B. Reynolds Charitable Trust, the Duke Endowment, and other sources to establish a NC Dental Care Foundation for the purpose of assuring access to needed preventive and primary dental care services in underserved communities and for underserved populations in our state. Does not require legislation.*

Years ago, the NC Medical Society created the NC Medical Society Foundation and, with the financial assistance of the Kate B. Reynolds Charitable Trust, added a major initiative to address the needs of underserved communities in North Carolina. The mission of the NC Medical Society Foundation's Community Practitioner Program is to improve access to medical services for low income and other medically underserved populations. Over the years, the NC Medical Society Foundation, in collaboration with the NC Office of Research, Demonstrations and Rural Health Development, has successfully recruited doctors to serve and treat medically underserved communities and low-income populations. The Task Force recommends that the NC Dental Society seek funding from private foundations to establish a program with a similar mission. The new program could help institutionalize the North Carolina dental societies' commitment to try to increase access to dental services for Medicaid and other lowincome populations. The new program could also help leverage private dollars by establishing a charitable organization to which dentists and other private foundations could contribute.

• *Recommendation #6: Revise the NC Dental Practice Act to permit specially trained public health dental hygienists to perform oral health screenings as well as preventive and educational services outside the public school setting under the direction of a licensed public health dentist.*

Suggested legislative language: N.C.G.S. 90-233 should be amended to read as follows:

Practice of dental hygiene. (a) A dental hygienist may practice only under the supervision of one or more licensed dentists.

Subsection (a) shall be deemed to be complied within the case of dental hygienists if

i. employed by or under contract with a county or state government dental public health program,

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ii. specially trained by the NC Dental Health Section as public health dental hygienists,

iii. while performing their duties for the persons officially served by the county or state government program by whom he or

she is employed or has a contract to practice, and
iv. under the direction of a duly licensed dentist employed by that
program or by the NC Dental Health Section.

North Carolina public health hygienists are authorized under the present statute to provide educational and preventive services under the direction of a public health dentist within the public school setting, even when the dentist is not present when the services are provided (N.C.G.S. 90-233). These recommended revisions to the Dental Practice Act would allow public health dental hygienists to provide oral health screenings and referrals, education and preventive services in other locations when acting under the direction of a public health dentist. It was the intent of the Task Force that public health dental hygienists will be deemed to be acting under the direction of a duly licensed dentist if the dentist directs that the dental hygienist perform certain procedures, even if the dentist is not physically present when the procedures are performed. These revisions are important if the growing population of preschool children with dental needs in various settings is to be served.

• *Recommendation #7: The NC•IOM, in conjunction with the NC State Board of Dental Examiners, the NC Dental Society, the Old North State Dental Society, NC Dental Hygiene Association, the NC Primary Health Care Association, the Dental Health Section and NC Office of Research, Demonstrations and Rural Health Development of the NC Department of Health and Human Services, should explore different methods to use dental hygienists to expand preventive dental services to underserved populations in federally funded community or migrant health centers, state-funded rural health clinics or not-for-profit clinics that serve predominantly Medicaid, lowincome or uninsured populations. A report should be given to the Governor and the Joint Legislative Commission on Governmental Operations no later than March 15, 2000.*

Federally-funded migrant and community health centers, statefunded rural health clinics, and not-for-profit free clinics are an integral part of the safety-net of providers available to serve lowincome and uninsured patients in North Carolina. While the

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number of clinics currently providing dental services to the State's uninsured population is not large, the NC Office of Research, Demonstrations and Rural Health Development will be working with many of these centers in the future to expand the availability of dental services. The Task Force heard testimony from M/CHC representatives as well as from the NC Office of Research, Demonstrations and Rural Health Development about the need to allow flexibility for dental hygienists providing

preventive dental services (Carey, 1999; Bernstein, 1999). These centers are not always able to hire full-time dentists to practice in their clinics. Some dentists split their time between two or more clinic sites, while other dentists may split their time between a private practice and a safety-net clinic. Some of the presenters suggested the low-income populations could be more effectively served by expanding the role of dental hygienists practicing in these centers.

While the Task Force understood the need for further access to preventive dental services and for linking preventive services with restorative treatment for underserved populations, questions were raised about the best way to accomplish this. Therefore, the Task Force recommends that this issue be studied further to fully explore all options.

- *Recommendation #8: Existing and any future loan repayment programs established with the purpose of attracting dental professional personnel to work in rural or underserved areas should be accompanied by more stringent requirements to ensure that the dentists serve low-income and Medicaid patients.* Does not require legislation.

The NC Office of Research, Demonstrations and Rural Health Development operates three loan repayment programs: a federally funded program, a state-federal funded program, and a state-funded repayment program. Under these programs, dentists can have their loans repaid in return for an agreement to serve underserved populations in dental shortage areas of the state. While dentists must serve in dental health professional shortage areas to obtain the loan repayment, they do not always target their practice to treat low-income patients. The Task Force recommended that existing and future loan repayment programs should be accompanied by more stringent requirements to ensure that dentists serve low-income and Medicaid patients.

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- *Recommendation #9: The Board of Governor's Scholarship Program and other state tuition assistance programs should carry a requirement of service in underserved areas upon graduation.* Would require legislation.

The Board of Governors Dental Scholarship was designed to expand opportunities in dental education for financially disadvantaged North Carolina students of all races, and improve dental care for underserved areas of the state. Eight scholarships are available on a yearly basis to North Carolina residents who have been accepted at the UNC-CH School of Dentistry. Each scholarship provides an annual stipend of \$5,000. The award also pays tuition, mandatory fees, and approved costs for instruments and supplies. Annual renewal is based on satisfactory academic progress, existing condition of financial need, and a continued interest in the practice of dentistry in North

Carolina.

The program is administered by the NC State Education Assistance Authority as the designee of the President of The University of North Carolina System. The Authority, in cooperation with the UNC-CH School of Dentistry, has the responsibility of developing the regulations, procedures, and forms necessary for administering the program.

As currently written, the scholarship requires the recipient to “remain primarily interested in and committed to the practice of dentistry in the State of North Carolina.” However, recipients are not legally obligated to practice in North Carolina after graduating. The Task Force recommends that these scholarships require a commitment from the student to practice dentistry in an underserved part of North Carolina for two years after graduation. If the recipient is unable to repay the scholarship through service, the scholarship amount should be repaid to the state with 10% interest. This would be similar to the North Carolina Teaching Fellows Program, which requires the recipient to teach for four years following graduation in one of North Carolina’s public schools or US government schools in North Carolina. If the recipient cannot repay the scholarship through service, the loan is repaid to the state with 10% interest.

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• Recommendation #10: The General Assembly should direct the NC State Board of Dental Examiners to establish a licensure-by-credential procedure that would license out-of-state dentists and dental hygienists who have been practicing in a clinical setting in other states with the intent of increasing the number of qualified dental practitioners in the state. Specifically, the NC State Board of Dental Examiners should consider the following:

- Graduation from an accredited school*
- Passage of another state or regional examination*
- Proof of current licensure in another state or region*
- Minimum of two years of dental clinical practice experience*
- Personal interview of applicant*
- Minimum of three professional references*
- Criminal record is checked and certification required to assure that no criminal charges are pending*
- Passage of written examination testing knowledge and skills of infection control*
- Passage of the NC dental jurisprudence exam*

The Board shall establish a timely process for reviewing applications for licensure-by-credential. Specifically, the process should be completed in a timely fashion to allow the NC Office of Research, Demonstrations and Rural Health Development to recruit dentists

to practice in medically underserved areas in those cases where loan repayment arrangements must be made to recruit these professionals.

Dental licensure boards in 34 states plus the District of Columbia grant licenses to currently licensed dentists who have practiced for a period of time in another jurisdiction without further academic or clinical examination (ADA, 1999). Many dental boards include additional requirements to grant licensure-by-credentials, but they vary by state. All states offering licensure-by-credentials require graduation from an accredited school, successful completion of National Board Exams, a valid license in another state, lawful practice for a specified period of time, and successful passage of the state's jurisprudence exam. Many dental boards also require letters of reference attesting to the character of the applicant and personal interviews.

North Carolina currently offers licensure-by-credentials to many other health professionals including physicians, pharmacists, chiropractors, and nurses. Implementing this recommendation has

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*Establish a
licensure-by-credential
procedure to increase
the number of
qualified dental
practitioners in the
state*

the potential to increase the number of dentists who practice in our state. By removing the barrier of another clinical exam, licensure-by-credentials would attract clinically competent dentists who have lawfully practiced somewhere other than North Carolina.

The NC State Board of Dental Examiners, in correspondence dated April 20, 1999, indicates that its members agree that "...licensure-by-credentials is a viable alternative to licensure by examination," but insists that thorough background checks on applicants would be a necessity if the public is to be adequately protected.

• *Recommendation #11: The NC State Board of Dental Examiners should be required to evaluate the competencies required by the different regional examinations to determine if these examinations ensure the same level of professional competence required to pass the North Carolina clinical examination. The NC State Board of Dental Examiners shall report its findings to the Governor and the Presiding Officers of the North Carolina General Assembly no*

later than March 15, 2001. If the Board concludes that participation in one or more regional examinations would not ensure minimum competencies, the Board shall describe why these other examinations do not meet North Carolina's standards and how the quality of care provided in North Carolina could be affected negatively by participating in such examinations. If the Board finds these exams to be comparable, procedures should be developed for accepting these examinations as a basis for North Carolina licensure in the year following this determination.

North Carolina is one of only 10 states or territories electing to give its own licensure examinations (ADA, 1996). Forty other states and the District of Columbia participate in one or more regional licensing examinations. Successful passage of a regional licensing examination enables the dentist to practice in any of the participating states. Given the severe shortage of dentists in our state, and especially the shortage of dentists who are willing or able to treat low-income patients, the potential effect of the state's current licensure procedures was discussed.

Aside from certain anecdotal information, the Task Force found it difficult to determine the actual extent to which North Carolina's current licensure procedures create entry barriers. In the last two years, the North Carolina dental licensure examina-

tion was given to more than 100 out-of-state candidates.

However, it is difficult to determine the actual numbers of out-ofstate dentists who took the examination, as dentists who failed it may sit for the exam on more than one occasion.

The North Carolina dental licensure examination is given twice per year. The NC State Board of Dental Examiners maintains that the North Carolina examination, as presently administered, tests only "basic clinical skills" required for the practice of dentistry and dental hygiene (NC State Board of Dental Examiners, 1999). The exam has been revised and streamlined in recent years, eliminating many of the procedures that appeared unnecessary and esoteric from the perspective of contemporary dental practice. Despite these changes, the Task Force heard testimony that the North Carolina examination process and the dates on which the examinations are administered may discourage some candidates from taking the North Carolina examination, and make it more difficult for the North Carolina Office of Research, Demonstrations and Rural Health Development to recruit new dentists to the state (Bernstein, 1999; Crockett, 1999).

Candidates must arrange for and pay the expenses of appropriate patients for the clinical part of the examination, which is particularly difficult for out-of-state candidates. In addition, the date of the NC examination in some years has conflicted with some of the other regional examinations.

Members of the NC State Board of Dental Examiners reported that they have given serious consideration to the possibility of accepting passage of one or more of the regional examinations as

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Date of Exam Number of Out-of-State

Candidates Taking Exam

Number (%) of Out-of-State Candidates Failing Exam

June 1997 100 Dentists

82 Hygienists

32 (32%) Dentists

11 (13%) Hygienists

September 1997 63 Dentists

52 Hygienists

28 (45%) Dentists

17 (33%) Hygienists

June 1998 67 Dentists

69 Hygienists

9 (13%) Dentists

10 (14%) Hygienists

September 1998 52 Dentists

39 Hygienists

16 (31%) Dentists

1 (3%) Hygienists

(North Carolina State Board of Dental Examiners, 1999)

Table 2. NC Board Examination Passage and Failure Rates for Out-of-State Dentists and

Hygienists, 1997 & 1998

a basis for licensure in North Carolina (NC State Board of Dental Examiners, 1999). For many years, the NC State Board of Dental Examiners has engaged the services of an examination consultant who possesses the knowledge and experience to assist them in this task. Board members have visited testing sites in other states on the day these regional examinations have been given, and they have corresponded with dental examination board members in other states who participate in such examinations. They have, with their consultant, examined the content, methods, examiner standardization procedures, and grading criteria in the regional examinations. The NC State Board of Dental Examiners at this point do not consider the examination content and process in these regional exams to be equivalent to the North Carolina examination, and consequently, they have not accepted any of these exams as a basis for licensure in North Carolina.

Given the widely divergent views on this issue, but the overall importance of increasing the supply of dentists to the state, the

Task Force recommends that the question of the acceptability of any (or all) regional examinations be considered periodically by the Board of Dental Examiners. The Task Force recommends that the NC State Board of Dental Examiners evaluate the competencies required by the different regional examinations to determine if these examinations ensure the same level of professional competence required to pass the North Carolina clinical examination. If the Board concludes that participation in one or more regional examination(s) would not ensure the minimum competencies, the Board should provide evidence that these other examinations do not meet North Carolina's standards and how the quality of care provided in North Carolina would be affected negatively by participating in such examinations. The Board's findings should be reported to the Governor and the Presiding Officers of the NC General Assembly no later than March 15, 2001.

A suggestion also was made that the Board allow the North Carolina examination to be taken before dental school graduation once candidates can provide a letter from the dean of their

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Graduation, UNC-CH School of Dentistry, 1997 (Courtesy UNC-CH School of Dentistry)

accredited dental school attesting to the fact that they have met all requirements for graduation. Licenses could be withheld until the Board receives proof of graduation. This approach would allow for an early spring examination and may enhance North Carolina's ability to recruit out-of-state dentists to practice in underserved areas. However, the current statute requires that all applicants for the dental examination be "a graduate of and [have] a diploma from a reputable dental college or the dental department of a reputable university or college recognized, accredited and approved as such by the [NC State Board of Dental Examiners]." (NCGS 90-30). Therefore, the statute would need to be changed before this suggestion could be implemented.

- *Recommendation #12: The NC State Board of Dental Examiners should consider a change in the wording in the regulations governing Dental Assistants in order to increase access to dental services for underserved populations. May require a change in regulations. North Carolina has two categories of dental assistants—Dental Assistants I (DAI), and Dental Assistants II (DAII). Dental assistants can also be certified through a national certification examination.*

Further delineation of the dental assistant DAII classification would better integrate the Certified Dental Assistant into the dental professional team, with greater responsibilities for prevention education and service provision. The NC State Board of Dental Examiners is currently reviewing the regulations governing the classification of dental assistants as well as their delegable functions. Proposed rules were filed by the Board in the NC Register of February 1, 1999 and a public rule-making hearing was held in March 1999. The Board will be adapting rules concerning dental assistants by August 1999.

Increasing the number of pediatric dentists practicing in North Carolina and expanding the provision of preventive dental services to young children.

- *Recommendation #13: Increase the number of positions in the pediatric residency program at the UNC School of Dentistry from two per year to a total of four per year.* Does require legislation. North Carolina has one of the lowest pediatric dentist-to-populations ratios in the country. The problem is likely to be exacerbated-

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Photo courtesy UNC-CH
School of Dentistry

ed because a large number of pediatric dentists will retire in the next decade (Bawden, 1999). Pediatric dentists have been shown to provide more comprehensive dental care to young children than general dentists (Cashion et al., 1999). Historically, North Carolina pediatric dentists are four times more likely to participate in Medicaid than general dentists (Venezie and Vann, 1993). In addition, pediatric dentists see a greater proportion of Medicaid patients relative to their absolute supply than do general dentists (Cashion et al., 1999). However, even with their willingness to serve Medicaid patients, a majority of pediatric dentists limit their acceptance of new Medicaid patients to the very young or children with special health care needs (Venezie & Vann, 1993).

By age five, more than one-third of North Carolina's children have experienced dental decay (Rozier, 1999). Children under five years of age with severe caries are seldom treated by a general dentist. With few exceptions, pediatric dentists must treat these children. Currently, about ten weeks are needed to get a nonemergency appointment with a pediatric dentist in North Carolina (Hughes and Bawden, 1999). Because the population of young children is increasing, and dental disease in this population is difficult to prevent with our existing programs, the need for pediatric dentists remains great.

The Task Force recommends that the state expand the pediatric dental residency program at UNC-CH from two per year to four per year. Doubling the size of this training program will prevent

the erosion of the supply of pediatric dentists and should, in time, improve access to these essential providers or primary dental care. Pediatric dentistry training at UNC-CH is a three-year program. Therefore, the costs of this recommendation would be phased in over three years. The cost of this proposal would be \$93,440 in the SFY 1999-2000 (to cover the costs of 2 pediatric residents and 1 dental assistant); \$186,880 in SFY 2000-01 (to cover the costs of 4 pediatric residents and 2 dental assistants); and \$252,880 in SFY 2001-02 and thereafter (to cover the costs of 6 pediatric residents and 2 dental assistants).

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By age five, more than one-third of North Carolina's children have experienced dental decay

Child with facial swelling due to dental cavities. (photo courtesy American Academy of Pediatric Dentistry)

• Recommendation #14: The NC•IOM, in conjunction with the NC Academy of Pediatric Dentistry, the UNC-CH School of Dentistry, the NC AHEC program, and the Dental Public Health Program within the UNC-CH School of Public Health, should explore the feasibility of creating additional pediatric dental residency program(s) at East Carolina University, Carolinas Healthcare System, and/or Wake Forest University. A report should be given to the Governor and the Joint Legislative Commission on Governmental Operations no later than March 15, 2000. The report should include the costs of establishing additional pediatric dental residency program(s) and possible sources of funding for pediatric dental residency programs, such as state appropriations or the Health Resources and Services Administration (HRSA), within the US Department of Health and Human Services.

In addition to expanding the pediatric dentistry residency program at UNC-CH, the Task Force recommended that the state study the possibility of establishing additional pediatric dentistry residency programs at other locations. The Task Force recommended that NC•IOM convene a group to study this issue and make recommendations, along with possible funding sources, to the Governor and the Joint Legislative Commission on Governmental Operations, no later than March 15, 2000.

Additional pediatric dentists can help improve the quality of care

provided to young children, and can address the needs of very young children with severe dental disease.

• *Recommendation #15: The Division of Medical Assistance is directed to add ADA procedure code 1203 to allow dentists to be reimbursed for the application of dental fluoride varnishes and other professionally applied topical fluorides without the administration of full oral prophylaxis.*

Under current procedures, Medicaid only reimburses dentists for the topical application of a dental fluoride treatment when accompanied by a full rubber cup prophylaxis. However, the effectiveness of the varnish does not rely on a conventional rubber cup prophylaxis. The Task Force recommended that the Division of Medical Assistance address this problem by adding ADA Procedure Code 1203 to the list of reimbursable dental procedures. This would enable dentists to apply dental fluoride treatments after a non-abrasive cleaning of the teeth. This recommendation would require a new appropriation. The cost to the state would be approximately \$500,000 in SFY 1999-2000.

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• *Recommendation #16: Fund the Ten-Year Plan for the Prevention of Oral Disease in Preschool-Aged Children as proposed by the NC Dental Health Section.*

The goals of this effort would be to reduce tooth decay by 10% in all preschool children statewide in ten years; and reduce tooth decay by 20% in high-risk children statewide in ten years. The Ten-Year Plan would expand the use of public health dental hygienists from school-based settings to community-based settings such as day care centers, Smart Start programs, Head Start Centers and other community settings where high-risk children are located. The program would provide health education to mothers and caregivers, apply fluoride varnishes to young children, use dental sealants when appropriate, and provide continuing education courses for any professional who has contact with young children.

At present, approximately one-fourth of all kindergarten children in North Carolina has untreated dental disease (Rozier, 1999; King, 1999). Thus, waiting until kindergarten to reach children at high risk for tooth decay is too late to begin delivering preventive and educational services. The benefits of the state's successful school-based preventive dentistry program must be extended to preschool children.

North Carolina's school-based preventive dentistry program has been in operation since the early 1970s and now reaches over

300,000 elementary and middle school children each year. Since this program was implemented, dental decay in the permanent teeth of North Carolina schoolchildren has been cut in half. Such progress has greatly exceeded the initial goals set for this program in the early 1970s. Dentistry has the tools to prevent virtually all remaining tooth decay in children with proper home care, optimum use of fluoride, and regular visits to the dentist. Prevention at an early age is the key to long term success in solving the dental access problem.

Access to dental care for preschool children is extremely limited, especially for those children covered by public funding sources. Historically, few dental public health services have been available for preschool children because of the difficulty of reaching them in a cost-efficient manner. The difficult problem of early child-

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Community dental hygienist teaching a third-grade class on proper way to floss teeth (photo courtesy NC Dental Health Section, DHHS)

*Historically, few
dental public health
services have been
available for
preschool children*

hood tooth decay now demands that creative solutions and new resources be directed toward our state's youngest and most vulnerable citizens.

The Ten-Year Plan for expansion of North Carolina's public health preventive and educational program would involve hiring and training 30 additional public health dental hygienists and two additional field dentist supervisors over a three-year period who will provide technical direction as well as the supervision required by the NC Dental Practice Act. These additional staff will permit the NC Dental Health Section to provide more intensive preventive and educational services to children from birth through the completion of elementary school. Placement of Dental Health Section field staff in communities ensures that preventive and educational services are available to communities across the state in need. The goal of this ten-year program, if fully implemented, will be to reduce dental decay by 10% in all preschool children and by 20% in high-risk preschool children. The ten-year plan would cost \$966,028 in SFY 1999-2000 (to hire 10 public health dental hygienists, 1 field dentist supervisor, and 4 health educators), \$1,827,673 in SFY 2000-2001 (to hire an additional 10 public health hygienists one field dentist supervisor and \$165,000 for program evaluation), and \$2,288,418 in SFY 2001-

2002 (to hire an additional 10 public health hygienists plus \$35,000 to complete the program evaluation). The program would cost \$2,173,418 every year thereafter. These figures include the cost of collecting baseline data in 2000-2001 for program evaluation of the preschool program and as a follow-up to previous surveys in 1960, 1977, and 1987. The North Carolina Dental Health Section kindergarten surveillance will continue to provide selected interim data annually. Follow-up evaluation is planned for 2010 to assess the impact of both the preschool and school-based preventive dentistry programs on the oral health of North Carolina children. (A Complete description of the Ten-Year Plan for the Prevention of Oral Disease in Preschool-Aged Children is available from the Dental Health Section, DHHS).

- *Recommendation #17: The NC Dental Society, the NC Academy of Pediatric Dentistry, the Old North State Dental Society, the NC Pediatric Society and the NC Academy of Family Physicians should jointly review and promote practice guidelines for routine dental care and prevention of oral disease as well as guidelines for referring children for specific dental care, so as to provide all children with early identification and treatment of oral health problems and to*

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Since the NC school-based preventive dentistry program was implemented, dental decay in the permanent teeth of North Carolina schoolchildren has been cut in half

ensure that their care givers are provided the information necessary to keep their children's teeth healthy. Does not require legislation.

- *Recommendation #18: The Division of Medical Assistance should develop a new service package and payment method to cover early caries screenings, education and the administration of fluoride varnishes provided by physicians and physician extenders to children between the ages of nine and 36 months.*

Because of the shortage of pediatric dentists, there is no easy way to address the short-term restorative needs of young children with severe dental disease. However, the long-term solution is to ensure that young children receive regular preventive dental services to obviate the need for more extensive care.

Very young children are far more likely to access pediatric and well-child services than dental care. For example, in North Carolina in 1996, 58% of children under age one, and 63% of children between the ages of 1 and 5 received a well-child screening from a medical provider. However, almost no infants, and only about 13% of children between the ages of 1 and 5 received a dental screening (National Health Law Program, 1998). Thus, physicians and physician extenders should be enlisted to provide early caries screenings, to educate families about the importance of ongoing dental care, and to administer fluoride dental varnishes.

The Task Force made two recommendations to accomplish this goal. First, the NC Dental Society, the NC Academy of Pediatric Dentistry, the Old North State Dental Society, the NC Pediatric Society and the NC Academy of Family Physicians should jointly review and promote practice guidelines for routine dental care, prevention of oral disease, and for referring children for specific dental care. The intent of this recommendation is to provide all children with early identification and treatment of oral health problems and to ensure that their care givers are provided the information necessary to keep their children's teeth healthy. Second, a payment method must be developed to pay physicians, nurse practitioners, and physicians assistants for these services. Specifically, the Division of Medical Assistance should develop a new service package and payment method to cover early caries screenings, education and the administration of fluoride varnishes provided by physicians and physician extenders to children between the ages of 9 and 36 months.

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The long-term solution is to ensure that young children receive regular preventive dental services to obviate the need for more extensive care

This recommendation would require a new appropriation. Assuming that 30% of children birth through age three would obtain these dental related services from medical professionals, the cost to the state would be approximately \$1.0 million in SFY 1999-2000.

• *Recommendation #19: Support the enactment of HB 905 or SB*

615 which would expand NC Health Choice to cover sealants, fluoride treatment, simple extractions, stainless steel crowns and pulpotomies. Requires legislation.

The Task Force supports the legislation that has recently been introduced to expand the NC Health Choice program to cover sealants, fluoride treatments, simple extractions, stainless steel crowns, and pulpotomies. When the NC Health Choice program was enacted in 1998, the legislature included only a limited dental benefit package. The limited benefit package has prevented participating dentists from providing the preventive services needed to reduce the incidence and prevalence of dental disease, and discouraged some dentists from participating in Health Choice. The Task Force heard testimony that some dentists were unwilling to participate in NC Health Choice because the current limitations discourage them from providing adequate care to their patients (Harrell, 1999). The state's cost of covering these services would be approximately \$1.0 million, although it is unclear whether additional appropriations are needed. NC Health Choice is spending less than the initial budget projections, so the state may have sufficient funds in the current program appropriations to cover the costs of this expansion.

Training dental professionals to treat special needs patients and designing programs to expand access to dental services

- *Recommendation #20: The UNC-CH School of Dentistry, the NC Area Health Education Centers (AHEC) system, and the NC Community Colleges that offer educational programs for dentists, dental hygienists and dental assistants should intensify and strengthen special-care education programs to train professionals on child management skills and how to provide quality oral health services to residents and patients in group homes, long-term care facilities, home health, and hospice settings. No legislative appropriation required.*

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71 year-old with gingival recession and root caries. (Courtesy J. Kountz, DDS, Carolinas Medical Center)

Expand the NC Health Choice program to cover sealants, fluoride treatments, simple extractions, stainless steel crowns, and

pulpotomies

Persons with special health care needs (including physical and cognitive impairments) often are at increased risk for dental disease which can exacerbate existing medical conditions. In addition, general practitioners may need different skills to work with very young children compared to an older population.

Dental professionals can encounter challenging ethical and legal dilemmas when caring for these patients, including determining a patient's capacity to make treatment decisions, securing informed consent for treatment, choosing appropriate treatment options, and use of physical restraints. Dental healthcare professionals need to acquire and maintain basic skills in managing such patients through experiential learning and practice opportunities integrated within their professional curricula. For these reasons, the Task Force recommends that the UNC-CH School of Dentistry, the NC AHEC program, and the NC Community College system expand and strengthen specialized educational programs to enhance the capacity of dental professionals to treat special needs populations.

- *Recommendation #21: Support the development of statewide comprehensive care programs designed to serve North Carolina's special care and difficult-to-serve populations.*

Demographic trends indicate the rapid growth of aging and other special care populations over the next 30 years. This group of patients may require special care skills to treat behavioral and medically compromised conditions. Access to dental care for institutionalized persons or persons with disabilities has been a long-standing problem. These patients face barriers that range from fear and anxiety to a lack of transportation. While the number of residents and patients in long-term care institutions continues to grow in our communities, more and more special care patients are without basic oral health services. The Task Force supports the development of statewide comprehensive care programs designed to serve North Carolina's special care and difficult-to-serve populations.

The Task Force heard from representatives of a not-for-profit organization established to provide dental services to institutionalized adults (Milner, 1999). The program uses a van to transport a specially designed mobile dentistry unit to group homes, nursing homes, and other institutional settings. Through the mobile dentistry unit, the dental professionals are able to provide check-ups,

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populations*

x-rays, cleanings, fillings, crowns and bridges, oral surgery, partial dentures, and full dentures. Because it operates dental services within long-term care facilities, this program makes dental care accessible to those who have the greatest mobility problems. While the Task Force did not want to mandate the use of any particular program to address the needs of special care populations, it did recognize the need for programs to be developed.

Educating Medicaid recipients about the importance of ongoing dental care, and develop programs to remove non-financial barriers to the use of dental services.

- *Recommendation #22: The Division of Medical Assistance, in conjunction with the NC Dental Health Section of the NC Department of Health and Human Services, should develop or modify community education materials to educate Medicaid recipients about the importance of ongoing dental care. Does not require legislation.*

The Task Force recommended that the Division of Medical Assistance work with the NC Dental Health Section and the North Carolina dental societies to create or modify existing public information materials to educate Medicaid recipients about the importance of ongoing dental care.

- *Recommendation #23: The NC Division of Medical Assistance should pilot test dental care coordination services to improve patient compliance and enhance the ability of low-income families and people with special health care needs to overcome non-financial barriers to dental care. The Division of Medical Assistance should evaluate the program to determine if care coordination increases utilization of dental care services. The evaluation should be reported to the Governor and the NC General Assembly no later than January 15, 2001.*

The Task Force recommended that the state pilot test a system of care coordination to help Medicaid recipients access dental services. Care coordinators would be used to help link patients with a dental provider, arrange transportation, and address other barriers that prevent patients from accessing dental services. In addition, care coordinators could work with the patients who fail to keep their dental appointments. The state already provides Medicaid care coordination services to children (Health Check coordinators) and to adults and families (Carolina Access). Both

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Health Check and Carolina Access coordinators have the responsibility of helping Medicaid recipients access dental services, among other health care services. In practice, many of the care coordinators are unable to fulfill this responsibility because of the limited number of dentists who are willing to treat Medicaid patients. If the dental reimbursement rates are increased, and more dentists are recruited to participate in the Medicaid program, then the Division of Medical Assistance should establish pilot programs, directing existing Health Check and Carolina Access coordinators to assume greater responsibilities helping recipients access needed dental services. The pilot programs should be used to develop best practices that can be shared with other counties. No additional appropriation is required for the pilot phase.

Conclusion

The issues and problems addressed in this report are multifaceted and complex, requiring multiple strategies and actions by both the public and private sectors. Increasing Medicaid reimbursement rates is a necessary, but not sufficient, response to the problem of inadequate access to dental services. North Carolina needs to simultaneously increase the supply of dentists and dental hygienists; build a capacity among safety-net providers to address the dental care needs of low-income, Medicaid-eligible and special needs populations; and educate these groups about the importance of on-going comprehensive dental care. In addition, more emphasis must be placed on dental education and prevention strategies, to prevent costly and painful dental disease, especially among children. The 23 recommendations in this report, if acted upon, would go a great distance toward the goal of assuring adequate preventive and curative dental health care for those groups within our state's population who presently suffer the consequences of inadequate access to dental care.

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*The issues and problems
addressed in this report*

are multifaceted and complex, requiring multiple strategies and actions by both the public and private sectors

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