New Hampshire Oral Health Plan:

A Framework for Action

Coalition for New Hampshire Oral Health Action

July 2003

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Dear Colleague,

Today, oral diseases affect millions of Americans and dental caries (tooth decay) is the single most common childhood disease. Too often we ignore the fact that good oral health is essential to good health overall, and fail to recognize that oral health problems contribute to other diseases such as heart disease, diabetes and stroke, and are associated with serious problems for newborns. And yet, what is most striking is that most oral disease is preventable.

The Coalition for New Hampshire Oral Health Action was convened by the Endowment for Health and the New Hampshire Department of Health and Human Services in July 2002 to develop a statewide plan to mobilize resources and combat this "silent epidemic". Representing numerous agencies, organizations and professions Coalition members assembled not just to find solutions to New Hampshire's oral health problems, but to take action to bring those solutions to life. The Coalition often engaged in intense debate before coming to consensus on a framework for action. This collaborative spirit overrode individual agendas, as members recognized that broad-based cooperation would be essential to overcoming barriers to achieving good oral health for all New Hampshire citizens. We would like to thank Coalition members for their dedication and commitment to the process.

We are also grateful for the insights and assistance from our consultants, Dr Burton Edelstein and Dr Caswell Evans, who generously devoted their valuable time and effort to providing the Coalition with expertise, wisdom and information from a national perspective.

Finally, we would like to thank Wendy Frosh for her numerous contributions to the process. It was Wendy who facilitated the meetings, guided the process, helped us to achieve consensus, and ultimately pulled together the vision of Coalition members into this plan.

The work of the Coalition is not over. Members have committed to working on the implementation of the plan, and have extended invitations to other key stakeholders to contribute to the process. The goals, objectives and strategies enumerated in this document will be the basis for a work plan with responsibilities and timelines assigned.

The Framework for Action is intended to be a "living document" – one that will be revisited and modified as implementation proceeds. We are especially pleased that the publication of this plan coincides with the release of the Surgeon General's National Call to Action to Promote Oral Health. On behalf of the Coalition for New Hampshire Oral Health Action, we invite you to join us in this critical public health initiative.

Sincerely,

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1. Executive Summary

New Hampshire has been ranked as one of the healthiest and wealthiest states in the nation, and is seen by many as relatively homogeneous and problem free. This veneer belies the fact that access to oral health care varies greatly across the state, and oral diseases are a devastating problem among a significant percentage of New Hampshire residents, affecting their overall health and ability work and learn. While much oral disease is preventable, many in New Hampshire lack access to the basic services that could help them avoid oral pain, infection and dysfunction, dental caries (tooth decay), tooth loss and other oral health problems. Over the past decade, efforts have been made to address these concerns with some measure of success. But these initiatives have had limited effectiveness because of the lack of a comprehensive, coordinated approach among funders and policymakers to addressing the problem.

Responding to a growing concern regarding the oral health of New Hampshire's residents, the New Hampshire Department of Health and Human Services (DHHS) and the Endowment for Health (EFH) collaboratively convened the Coalition for New Hampshire Oral Health Action in July of 2002. The Coalition accepted as its charge the task of developing a blueprint for decision-making, an oral health plan for the state.

The Coalition for New Hampshire Oral Health Action was designed to be broadly representative of the individuals and entities concerned with oral health. Its members included representatives from the oral health community, the medical community, the legislature, education, advocacy groups and the insurance industry, as well as from the New Hampshire DHHS and the Endowment for Health. Its charge was to develop a plan that would address the oral health needs of all New Hampshire residents and communities and the conditions and opportunities specific to New Hampshire, and create a model for action that would build upon the oral health improvement activities already underway across the state.

To begin the process of plan development, the Coalition embarked on an exploration of the elements that constitute the landscape of oral health. These components were categorized as Prevention, Health Promotion, Education and Counseling; Workforce; Financing; Safety Net; Integrating Functions; and Advocacy, Policy and Politics.

To encourage public input to the process, a series of six community "listening sessions" were held across the state. The goal of these sessions was to communicate about the plan development process, elicit community perspectives on local oral health problems and solutions, to prepare the ground for community implementation initiatives, and to incorporate community perspectives into the oral health plan. In addition to the research conducted within the state, the Coalition reviewed a broad spectrum of national initiatives regarding oral health, such as the Surgeon General's report, *Oral Health in America,* and *Healthy People 2010*.

Throughout the planning process, the Coalition for New Hampshire Oral Health Action operated with a set of underlying premises regarding the promotion of oral health and the provision of dental care: While health and health care are ultimately family and community considerations and New Hampshire's regions and communities have unique capacities and constraints, state level activity can support communities in improving oral health and dental care. It was determined that the resulting

plan, therefore, should not only identify a "standard" level of oral health for all residents, but should also articulate priorities for both statewide and community-level action; identify tools and resources to address oral health needs; coordinate and support existing community-based systems; and empower individuals to access and utilize available resources.

It was acknowledged by the Coalition that while there are common underlying issues and problems across New Hampshire, variation exists – in terms of unique needs, available resources and competencies – from region to region, and community to community. This means that there is the need to identify statewide initiatives that will have the capacity to benefit all communities – such as improving Medicaid reimbursement and establishing funding mechanisms for local system development – knowing that these initiatives may create different outcomes community by community.

Using the principles identified in the Surgeon General's report, *Oral Health in America,* as its framework for articulating a plan of action, the Coalition developed a vision for New Hampshire and strategies to reach that vision (the details of which follow in the body of this report). Coalition members committed to the responsibility of implementing the plan and monitoring the success of those initiatives undertaken.

It is not the intent of this report to provide a comprehensive review of the oral health status of New Hampshire's residents, nor a restatement of the scope of the problem. Instead, on the following pages, the Coalition for New Hampshire Oral Health Action offers a vision and discussion of what actions will be necessary to bring oral health and its positive impact on well-being, to the residents of New Hampshire. That there are disparities in the oral health status of New Hampshire residents is undisputed. Finding ways to reduce those disparities is the subject of this report.

Vision

Residents of New Hampshire will have the opportunity to achieve and maintain oral health through access to an effective system of health services which promotes appropriate health behaviors.

These services, which include assessment, prevention, health promotion, education, counseling, and treatment, will be provided through an integrated system of health care that assures accessibility, affordability, high quality, appropriateness to individuals' needs, and responsiveness to individuals' circumstances.

Recommendations

Principle

I. Change perceptions regarding oral health and disease so that oral health becomes an accepted component of general health.

Goal

I.A. Increase public perception of the importance of good oral health as a component of overall health.

Objectives

I.A.1. Develop a statewide oral health awareness and education campaign.

I.A.2. Integrate oral health with general medical care.

I.A.3. Integrate comprehensive oral health curricula in general health curricula and promote in all New Hampshire schools.

Principle

II. Apply science effectively to improve oral health.

Goal

II.A. Assess the oral health status of New Hampshire residents.

Objective

II.A.1. Develop and maintain a comprehensive epidemiological oral health surveillance system to identify, investigate and monitor oral health and oral health services.

Goal

II.B. Reduce the burden and progression of oral diseases in New Hampshire by integrating best available science and evidence-based treatment into clinical practice and policy.

Objective

II.B.1 Access and disseminate leading edge information on oral health science.

Goal

II.C. Reduce the incidence of dental caries through evidence-based public health interventions.

Objectives

II.C.1. Maximize the benefits of fluoride in preventing and controlling dental caries.

II.C.2. Implement and maintain the capacity for a statewide school-based sealant program.

Goal

II.D. Increase early detection and reduce the incidence of oral and pharyngeal cancers.

Objective

II.D.1. Support efforts to reduce tobacco and alcohol use among New Hampshire residents.

Goal

II.E. Reduce the incidence of oral and facial injuries.

Objective

II.E.1. Recommend the requirement of the use of face-masks and mouthguards in all school and other sports programs.

Principle

III. Build an effective health infrastructure that meets the oral health needs of all and integrates oral health effectively into overall health.

Goal

III.A. Enhance the existing workforce to meet the diverse oral health needs of all New Hampshire residents.

Objectives

III.A.1. Maximize the capacity of the oral health workforce to address the needs of the population.

III.A.2. Integrate, improve, expand and sustain the oral health component of the health care safety net.

Principle

IV. Remove known barriers between people and oral health services.

Goal

IV.A. Eliminate barriers and enhance access to good oral health.

Objectives

IV.A.1. Create system-level improvements to treat high risk populations such as children, the elderly, uninsured adults, the developmentally disabled, the mentally ill and those with HIV/AIDS.

IV.A.2. Enhance the competency of the oral health workforce to treat high risk populations.

IV.A.3. Build a care coordination and case management system especially for those at high risk.

IV.A.4. Improve access to dental insurance among all sectors of the population.

Principle

V. Use public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.

Goal

V.A. Further integrate the efforts between the public and private sectors to address the oral health needs of the residents of New Hampshire.

Objectives

V.A.1. Create a statewide clearinghouse to serve as a resource for information on existing oral health programs, technical support, funding consultation and successful public health models.

V.A.2. Promote regional and community-based collaborative efforts among agencies, organizations and individuals to address oral health needs.

V.A.3. Monitor the implementation of the New Hampshire Oral Health Plan.

V.A.4. Review and revise the New Hampshire Oral Health Plan as necessary.

2. Introduction

The Surgeon General's report, *Oral Health in America,*[1] defines oral health as more than healthy teeth, more than being free from disease. Oral health is a positive condition that is integral to general health and well-being. An individual who does not have the ability to perform certain essential functions – to speak, taste, chew and swallow – may have compromised ability to work, learn or function effectively within the community. The Surgeon General goes further to say that oral health is not only essential to general health, but can be achieved by everyone. However, while we have made substantial improvements in the nation's oral health over the past several decades, there continues to be a significant segment of the population for whom oral health remains elusive.

New Hampshire has been ranked as one of the healthiest and wealthiest states in the nation, and is seen by many as relatively homogeneous and problem free. This veneer belies the fact that access to oral health care varies greatly across the state, and oral diseases are a devastating problem among a significant percentage of New Hampshire residents, affecting their overall health and ability to work and learn. While much oral disease is preventable, many in New Hampshire lack access to the basic services that could help them avoid oral pain, infection and dysfunction, dental caries (tooth decay), tooth loss and other oral health problems. Over the past decade, efforts have been made to address these concerns with some measure of success. But these initiatives have had limited effectiveness because of the lack of a comprehensive, coordinated approach among funders and policymakers to addressing the problem.

Because of the far reaching impact of these problems, the New Hampshire Department of Health and Human Services and the Endowment for Health have both identified improving New Hampshire's oral health as a priority for action. Citing their mutual commitment to reducing the devastation of oral disease, New Hampshire DHHS and the Endowment for Health worked collaboratively to convene a statewide coalition to develop an oral health plan for New Hampshire, which would identify and prioritize the actions necessary to address the problems and serve as a blueprint for decision-making.

1. US Department of Health and Human Services. *Oral Health In America: A Report of the Surgeon General.* Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

3. The Oral Health Plan Development Process

The Coalition for New Hampshire Oral Health Action was convened by the Endowment for Health and the New Hampshire Department of Health and Human Services in July of 2002. It was designed to be broadly representative of individuals and entities concerned with oral health, and included members from the oral health community, the medical community, the legislature, education, advocacy groups and the insurance industry, as well as from the New Hampshire DHHS and the Endowment for Health. Its charge was to develop a plan that would address all New Hampshire residents and communities, the conditions and opportunities specific to New Hampshire and create a model for action that would add value to the oral health improvement activities already underway across the state.

By assembling these individuals from across New Hampshire, the conveners sought to build commitment, raise awareness and promote collaboration among key stakeholders whose participation in both the planning and implementation processes would be critical. Both the Endowment and the New Hampshire DHHS participated actively in the Coalition's proceedings on an equal footing with other invitees. Nationally-recognized oral health policy experts were retained to serve as consultants to the Coalition and an experienced facilitator and advocate for oral health service and policy issues served as Project Director and meeting facilitator. This enabled the assembled members to engage in lively and often provocative discussion. All Coalition members were asked to commit to the intensive six-month process.

Discussion at the initial session led to refinement and elaboration of the original charge. Consensus was quickly reached as the Coalition agreed to pursue the development of a plan that would address both oral health and dental care; be realistic and sustainable; capitalize on all available resources; include measurable goals and outcomes; acknowledge the unique conditions across New Hampshire; utilize the best available national and state information and data; and provide flexibility to meet local/community needs.

To begin the process of plan development, the Coalition embarked on an exploration of the elements that comprise the landscape of oral health. These components, which will be explored in more detail in the Findings section of this report, were categorized as

- Prevention, Health Promotion, Education and Counseling
- Workforce
- Financing
- Safety Net
- Integrating Functions
- Advocacy, Policy and Politics

Prevention, Health Promotion, Education and Counseling

The focus of the Coalition's discussion was on the potential for true disease prevention through widespread public and professional education regarding the importance of oral health to general health and interventions such as community water supply fluoridation and sealants. Also addressed was the opportunity for effective disease management through early intervention, education, counseling and

services designed to empower the individual to take action to promote good oral health, such as programs to reduce transmission of oral infection from mother to infant and reduce the incidence of "baby bottle decay" among infants and toddlers. As a principle, the Coalition endorsed the idea that types and intensities of interventions be matched to risk levels for disease in both individuals and populations.

Workforce

The Coalition dissected the issue of workforce adequacy, looking at current and projected numbers of oral health professionals; their types, diversity and distribution across the state; their competency training for the unique needs of the underserved populations; the potential to utilize "non-dental" providers to expand the reach of oral health services; and the interactions between and among providers of oral health services.

Financing

In this session, Coalition members examined the design and experience of the state's Medicaid fee-for-service program, Healthy Kids Gold; the State Children's Health Insurance Program (SCHIP), Healthy Kids Silver; and the managed care program, Northeast Delta Dental (NEDD) Kids. They also reviewed the commercial insurance market and self-pay components of the financing system.

Safety Net

Defining the safety net as the providers of care who have a priority commitment to deliver affordable [oral] health services to vulnerable and underserved populations; where people with economic, social and cultural barriers to care can obtain [oral] health services, the Coalition considered the experience and potential of programs delivered by Community Health Centers, school-based programs and hospital-based programs.

Integrating Functions

Coalition members explored the role of data collection, reporting and evaluation in building an accountable oral health system. Care coordination and case management were also considered as the Coalition discussed the functions that are required to link and integrate the components of an oral health system.

Advocacy, Policy and Politics

Acknowledging the essential role of advocacy, policy and politics in implementing an oral health plan, the Coalition members considered the approaches to necessary policy development and building political will to support required policy and funding changes.

Public Input to the Planning Process

A series of six community "listening sessions" were held across the state to encourage public input to the planning process. The goals of these sessions were to communicate about the plan development process, elicit community perspectives on local oral health problems and solutions, to prepare the groundwork for community implementation initiatives and to incorporate community perspectives into the Oral Health Plan. The listening sessions were held in Concord, Dover, Keene, Lancaster, Manchester and Nashua, in collaboration with community-based health consortiums, Healthy Manchester

Leadership Council, Greater Nashua Healthy Community Collaborative, Alliance for Community Health, Strafford Network, North Country Health Consortium, Monadnock Partnership and Pilot Health.

While specifics varied from locale to locale, among the observations expressed by those in attendance at these meetings several consistent themes emerged. Although these perceptions may not be validated by data, their repetition from site to site was noteworthy.

- There was a perception that the general population does not value oral health as a priority.
- Many said that populations at risk for increased incidence of oral diseases because of a lack of access to prevention and treatment include children, elderly, low income, disabled, and homeless.
- It was suggested that there is a shortage of dental personnel – dentists, hygienists, and assistants – available to treat not only the indigent and high risk populations, but also the general population, as evidenced by the fact that in many areas of the state there is a lengthy waiting period for treatment, regardless of source of payment.
- Many felt that general dentists aren't adequately trained to handle the extreme need in the indigent population and often don't know how to manage this need with the limited resources available.
- It was suggested that proposed New Hampshire legislation and regulation regarding treatment and environmental concerns may further impede access by putting constraints on dental practice.
- Many expressed concerns that business and industry do not recognize the impact of poor oral health on economic performance.
- It was the sense of many that low Medicaid payment for dental services continues to be a barrier to dentists' participation in the program.
- Concerns regarding the sustainability of publicly-funded programs were expressed.
- It was noted that the fact that fluoridation of drinking water is not consistent throughout New Hampshire has contributed greatly to the oral health disparities within the population.
- Many felt that public education regarding the importance of good oral health needs to be a priority.
- The success of school-based programs in introducing good oral health behaviors in children was cited.
- It was suggested that communication between the Legislature and oral health professionals should be improved.

Stakeholder Input to the Planning Process

While the Coalition members actively participated in the planning process, each was invited to discuss his or her views with the Project Director individually and in confidence. The goal of these meetings was to ensure that every member was able to express individual priorities and/or concerns, and contribute to the process and substance of the plan. These meetings generated a short list of issues which required additional discussion at Coalition meetings. Of particular concern were topics including:

At-risk populations – children, the elderly, the developmentally disabled, and those with HIV/AIDS;
Workforce – numbers, capacity and roles;
Fluoride and sealants;
Sustainability of safety net services;
Medicaid reimbursement; and
Plan implementation.

As planning sessions continued, these topics were reopened and discussed in more detail. Concerns

4. Findings of the Coalition for New Hampshire Oral Health Action

The Coalition met regularly over a six-month period in an effort to review key issues in oral health. Their meetings were focused topically on the elements that comprise the oral health landscape:

- Prevention, health promotion and education
- Workforce
- Financing
- Safety Net
- Integrating Functions
- Advocacy, policy and politics

Prevention, Health Promotion and Education

Prevention, health promotion and education clearly represent the most cost-effective means to improving New Hampshire's oral health. Not all individuals and populations are at the same risk for oral diseases, therefore a principle of the Coalition's plan is to target intensity and types of interventions to match the levels of risk. Initiatives such as early intervention, disease management and risk-based interventions need to be directed to the individuals and populations at highest risk.

The importance of fluoridation as a preventive measure is widely recognized and long-standing. Sixty-six percent of the US population who are on public water supplies receives fluoridated water. This represents 58% of the total US population. In New Hampshire, while two thirds of the population uses public water supplies, only 10 communities have fluoridated their water supply. This results in only 25% of the total New Hampshire population having access to fluoridated water. When assessing the percentage of a state population on public water supply receiving fluoridated water, New Hampshire ranks tenth lowest in the country.

The Coalition recognized that to fluoridate 65% of those communities who use public water supplies, the Healthy New Hampshire 2010 goal, tremendous political will and grassroots support will be required. Absent universal fluoridation across the state, other interventions such as the prescribing of fluoride by primary care medical providers and school-based fluoride programs in communities where residents do not have access to fluoridated public water supplies take on added importance, but it will be necessary to simplify the process of well-water testing in order to facilitate the prescribing of fluoride by medical providers.

Application of sealants on the teeth of school-aged children has also been proven effective in the prevention of some types of dental caries. Very few school-based sealant programs are underway in New Hampshire, although oral health education, screening and cleaning programs are in place in numerous school districts across the state. The Coalition deliberated at length regarding the most effective approach to provide sealants to those school-aged children who do not access regular dental care. In New Hampshire, although hygienists can place sealants on the teeth of children who have been examined by a dentist, the availability of financial resources to reimburse dentists to provide those examinations was a concern. While the majority of Coalition members noted that this could limit the number of high risk children who receive sealants through school-based programs,

the pursuit of an expansion of school-based sealant programs through the use of volunteer dentists, rather than a change in the rules regarding supervision was agreed to as a compromise. The New Hampshire Dental Society offered to coordinate this volunteer initiative, in an effort to not only expand the reach of this program, but also to expose dentists to the extent of oral disease in school-aged children. The Coalition also agreed to monitor the success of this initiative and to pursue other approaches if this does not generate the necessary delivery of sealants to at-risk children.

Education and health promotion will also need to play a major role in improving New Hampshire's oral health. A common thread throughout the planning process was the acknowledgement that a significant number of New Hampshire residents do not value oral health. Many people believe that the loss of teeth is a natural, unavoidable process, and that treatment, let alone prevention, screening, and early diagnosis, is unnecessary. It will take an enormous public health education effort to begin to change that mentality, but an effort that the Coalition deemed critical.

Workforce

Much of the discussion regarding workforce focused on the perceived shortage of dentists in New Hampshire. Currently there are just under 900 licensed dentists in the state, the majority of whom, like the population, are concentrated in the southern tier, although within that geography there are populations who are relatively underserved. Of that number, two-thirds are general dentists, and one-third, specialists. Almost 50% of the New Hampshire Dental Society's members are over 50 years old. The number of dentists is projected to begin declining over the next five years, as the number of dentists graduating from dental schools is outstripped by those retiring from active practice. As there are no dental schools and few residency training slots in New Hampshire, recruitment remains a significant challenge, as dentists commonly locate their practices near where they are educated. The number of dentists who actively treat New Hampshire's highly vulnerable populations – children, developmentally disabled, the elderly, and those with HIV/AIDS – is relatively small.

Registered Dental Hygienists are also in short supply in New Hampshire. There is one training program with the capacity to graduate 28 hygienists each year. While federal projections anticipate an increase in the number of hygienists over the next five years, currently, there is reported difficulty in filling positions in the public health sector as well as those in private practice. Hygienists are able to provide an array of key preventive services including fluoride treatments and sealants, but some of those services must be provided under supervision of a dentist. Previously, the Dental Society offered financial resources to increase capacity to train hygienists at the state's Technical Institute, but corresponding funding was eliminated from the state's budget. This approach has recently been reinitiated.

Another member of the oral health workforce, the Dental Assistant, was discussed by the Coalition in some detail. No formal training program or licensure is required for those in this field, except for certification to expose radiographs. New Hampshire does have one formal education program for Dental Assistants, but many receive their training "chair-side," on the job. Various states have enabled the creation of a "new" category of provider – the Expanded Function Dental Assistant (EFDA) – to enhance dentists' productivity. It was suggested that the Coalition investigate the potential for moving in that direction. The relatively short training period and cost of labor may provide a cost-effective approach to addressing the impending reduction in dentist-to-population ratios.

In addition to the traditional oral health workforce, the Coalition examined the potential for utilizing "non-dental" providers to perform certain oral health functions. The merits of integrating

oral screening and oral health promotion into general medical care – health history, physical examination and health counseling – were widely accepted as the discussions focused on the feasibility of pediatricians, family practitioners, nurse practitioners and other primary medical care providers providing oral screening, fluoride varnishes, and other preventive interventions. The Coalition considered the creation of training protocols for these non-dental providers as a means to improve access to basic preventive oral health care, and debated the financial impact of expanding the workforce in this manner.

As the Coalition members evaluated the roles and functions of the traditional and non-traditional workforce members, they discussed the need for a new type of provider, one who had a combination of skills – those of a hygienist, a case manager and a health educator. Using the Certified Diabetes Educator as the model for this new provider, the Coalition considered the formalization of the role of an Oral Health Educator.

Again moving beyond the bounds of the traditional oral health workforce, the Coalition considered the merits of using those who are in day-to-day contact with children – parents, day care workers, educators – as promoters of oral health and oral health education.

The Coalition concluded that flexibility is a desirable component of workforce policy. Creative methods must be developed to assure an "elastic" workforce that can adjust to the changing needs of the population in a timely and effective manner. Creating a subgroup of appropriate leaders and policymakers to monitor and address these issues was deemed a priority.

Financing

Financing for oral health services in New Hampshire comes from a number of sources – commercial dental insurance, individual payment, Medicaid (traditional fee for service, as well as voluntary managed care) and the State Children's Health Insurance Program (SCHIP). Benefits under Medicaid are federally mandated for children, with treatment for adults limited to emergency care for pain and infections.

The Medicaid program for oral health covered 115,864 New Hampshire residents in Fiscal Year 2002. While 49.2% of licensed New Hampshire dentists were contracted Medicaid providers in 2001, 34.8% were active Medicaid providers (having seen at least one patient during CY01), only 7.7% were high volume providers (treating 100 or more patients in CY01). Total expenditures in FY02 on the Medicaid fee-for-service dental program were $4,584,933, with the vast majority (89.5%) spent on care for the 56,000 children enrolled in the program's fee-for-service and managed care plans. Dentists' participation in Medicaid has been hampered by the limited reimbursement for services, the majority of fees for which have not changed since 1994, and a burdensome administrative process.

The Medicaid program for oral health has evolved in a number of significant ways over the past several years. Though no new funding has been allocated by the legislature, the state convened a Dental Policy Advisory Committee, which conducted an evaluation of Medicaid reimbursement rates. In January 2000, they recommended increasing fluoride treatments to twice a year, a reimbursement rate increase for 12 procedures (predominantly those that are preventive and widely performed). Effective July 1, 2003, 27 codes were increased by an average of 64%. Also in response to suggestions from the dental community, many of the administrative components of the program have begun to be streamlined.

Additionally, in August, 2000, the state initiated a voluntary managed care program, NEDD-Kids, which was subcontracted to Northeast Delta Dental (NEDD) and administered through Anthem. Almost 90% of New Hampshire licensed dentists participate with Northeast Delta Dental, greatly

increasing access for children in this Medicaid program. The initial enrollment of 3,945 – approximately 7% of the total children enrolled in Medicaid – more than doubled in the program's two years of operations and expenditures on this population in FY02 – for the 8,717 enrolled – were in excess of $3,500,000, with reimbursement for care limited to $2,500 per year per child. In July 2003, the NEDD program was eliminated when DHHS did not renew its contract with Anthem for the voluntary managed care program.

The SCHIP dental program, Healthy Kids Silver, is also handled by NEDD through a contract with New Hampshire Healthy Kids Corporation. With 5,167 children enrolled as of August, 2002, SCHIP dental spending was approximately $1,000,000 (FY02). This program, for children from modest income families who have been uninsured for at least six months, has a family income-based premium, subsidized with both state and federal funds. Benefits through the program are limited to $600 per year.

A compilation of results from these programs shows that New Hampshire is making progress in providing oral health services to low income children, although the majority of covered children do not access dental care in a year. But a complete analysis of the program data has yet to be done, and the true impact on enrollees' oral health status remains unanswered.

Evidence that there is a preference among dentists for treating the Medicaid population through NEDD Kids indicates that reimbursement and simplified administration are drivers in ensuring access to care. This puts pressure on the state to increase fees in the traditional fee-for-service program, a move that will require legislative initiative. In addition to addressing the direct costs of its Medicaid programs, the state is also looking at ways to improve the effectiveness of services delivered by enhancing the case management and care coordination system used by program participants.

Safety Net

The safety net was defined by the Coalition as those care providers who have a priority commitment to deliver affordable oral health services to vulnerable and underserved populations. They noted that because both state and private funding is limited, resources for care are often constrained. The result is that the safety net is as vulnerable as many of its patients and cannot function as a true system, where care is integrated and coordinated among the various providers.

The Coalition examined the components of New Hampshire's safety net for oral health services. There are eight oral health clinics in the state – some community-based, some hospital-based, and others integrated into New Hampshire's community health centers – that provide a range of oral health care to the indigent. Many of these clinics also provide school-based services, while other school-based services are delivered as free-standing programs. Hospital emergency departments deliver services as well, to those with economic, social and cultural barriers to obtaining care, although the nature of these services is generally limited to treating pain and infection through medication. The NH Technical Institute serves approximately 1,200 elderly on an annual basis, providing prophylaxis, diagnosis and restorative care.

The Coalition also noted that many New Hampshire dentists provide pro bono care in their offices. Often the work of these dentists is coordinated through a case management system or community program, but many dentists offer services directly to specific at-risk patients. Some private practices have been developed and grant-funded by local health collaboratives or private entities to extend care to the indigent.

In reality, New Hampshire's safety net is unstructured and discontinuous, and ultimately unable to adequately serve the growing number of individuals in need of oral health services.

Integrating Functions

The Coalition reflected at length on the importance of a "system" of oral health care services. The ideal system would provide a continuum of services – from prevention and health promotion through restorative care – and would enable a user to move seamlessly among its components, regardless of his or her point of entry. Comprised of a variety of programs and clinicians – school-based screenings, private practitioners, community health centers, etc. – these components would be integrated through care coordination, reporting and accountability.

The group differentiated between disease management – managing the risk for and process of a disease; and care coordination – assisting an individual to receive necessary services, such as social, medical, educational, transportation, and translation by linking that individual with provider(s), so that the he or she can function within a community at an optimal level. The importance of integrating oral health into the health and human services system – for care coordination as well as service delivery – was reiterated in those discussions. Additionally, it was noted that care coordination could often be extremely effective in promoting health and encouraging compliance through counseling and education.

With regard to reporting and accountability, it was the sense of the Coalition that data were needed for two distinct purposes: to document progress in addressing unmet need, and to improve the efficacy of oral health interventions. The importance of "need" data was deemed essential as the basis for programmatic decision-making, as well as for educating the public (and the legislature) about the extent of the problem.

The state's Oral Health Program has conducted a representative oral health survey of New Hampshire's population. For third grade children, the survey measures the number of children with untreated decay, history of decay and the number of children with sealants. For adults, incidence of oral cancers, tooth loss, teeth cleaning and dental visits are measured, and the number of communities with fluoridated water is tracked. Annual assessments of established school, hospital and community-based dental programs' data are also performed. And because of the sample size, much of the data cannot be extrapolated to the local level.

Advocacy, Policy and Politics

The roles of advocacy, public policy and politics in moving the oral health agenda forward was deliberated by the Coalition. It was determined that there is a clear need to build constituencies concerned and committed to improving New Hampshire's oral health – within the general public, the dental and medical professions, and the legislature, as well as among advocacy groups who are already skilled in promoting the goals of their constituents. Shaping public policy to recognize the importance of oral health will also be critical to attaining the objectives in the Plan.

5. National and Regional Perspectives

Oral health has become a major topic on the national health agenda. Because much oral disease is preventable, it has been the focus of numerous studies and publications over the past several years. As its relationship to overall health has been more widely acknowledged, oral health has emerged as a priority public health concern.

Surgeon General's Report

Published in 2000, *Oral Health in America: A Report of the Surgeon General,* was notable for a number of reasons, but principal among them was the strong statement correlating oral health to general health. The report examined oral health status across the nation, evaluated how oral health can be promoted and maintained, and also identified opportunities for action designed to enhance oral health.

The Surgeon General's report detailed major findings which will have bearing on national, regional and local initiatives to address oral health:

- Oral diseases and disorders in and of themselves affect health and well-being throughout life.
- Safe and effective measures exist to prevent the most common dental diseases – dental caries and periodontal diseases.
- Lifestyle behaviors that affect general health such as tobacco use, excessive alcohol use, and poor dietary choices affect oral and craniofacial health as well.
- There are profound and consequential oral health disparities within the US population.
- More information is needed to improve America's oral health and eliminate health disparities.
- The mouth reflects general health and well-being.
- Oral diseases and conditions are associated with other health problems.
- Scientific research is key to further reduction in the burden of diseases and disorders that affect the face, mouth, and teeth.

Additionally, the Surgeon General's report creates a "framework for action" that will serve as the framework for New Hampshire's Oral Health Plan. The principles articulated in that report are:

- Change perceptions regarding oral health and disease so that oral health becomes an accepted component of general health.
- Accelerate the building of the science and evidence base and apply science effectively to improve oral health.
- Build an effective health infrastructure that meets the oral health needs of all Americans and integrates oral health effectively into overall health.
- Remove known barriers between people and oral health services.
- Use public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.[2]

2. US Department of Health and Human Services. *Oral Health In America: A Report of the Surgeon General.* Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000.

Recommendations of the Surgeon General's Workshop

Prior to release of the Surgeon General's Report, nearly 100 invitees representing dentistry and dental hygiene, medicine and nursing, law and government, business and industry, child and family advocacy, special needs populations, academe, communications, and foundations convened to consider disparities in oral health and dental care for America's children. Participants considered six approaches to these problems including:

1. increasing public awareness in order to promote public policy changes and impact individual behaviors;
2. promoting development and application of science and evidence-based care to enhance both consumer and practitioner behaviors;
3. integrating service delivery in order to meet the comprehensive health promotion and treatment needs of US children;
4. involving a range of health workers who come into contact with vulnerable children and their families in promoting oral health and dental care;
5. promoting public policies that lead to programmatic and funding support for oral health interventions; and
6. maximizing the role of public and private dental delivery systems to encourage positive oral health behaviors and provide essential services to all children.[3]

Eight major sets of recommendations emerging from the deliberations were presented at the June 2000 Surgeon General's Conference entitled, *The Face of a Child*:[4]

1. **Start early and involve all:** This set of recommendations includes establishing a dental home at age one; identifying high risk children early and promoting individualized preventive regimens in both medical and dental practice; developing community-based health coordinators to promote ongoing integration of oral health with general health care; developing day-care accreditation standards on oral health; and addressing the oral health needs of caregivers in order to promote more widespread attention to oral health.
2. **Assure competencies:** Recommendations include developing common core curricula for all health professionals on oral health that is comprehensive and integrative; and developing accreditation standards, guidelines, and performance measures that assure the inclusion of oral health promotion and, where appropriate, treatment in professional training and practice.
3. **Be accountable:** Recommendations include promoting school-based prevention, education, screening and referral programs on oral health; and developing performance measures and tracking systems to ensure that these programs are effectively implemented.
4. **Take public action:** Recommendations include developing activist coalitions that ensure stable-funded, community-based comprehensive health promotion and disease prevention; and crafting messages that specifically target providers, policymakers, and the public.
5. **Maximize the utility of science:** Recommendations include expanding the range and utility of science-based interventions; developing an evidence base on the effectiveness of oral disease management techniques; and developing a coordinated agenda across basic, applied, and health services research to promote oral health and effective dental care.

3. Edelstein B.L. "Forward to the Background Papers from the US Surgeon General's Workshop on Children and Oral Health." *Ambulatory Pediatrics*, 2(2 Supplement) 2002.

4. *The Face of a Child: Surgeon General's Conference on Children and Oral Health*, June 12-13, 2000, Washington, DC Conference agenda, abstracts and proceedings available at www.nidcr.nih.gov/sgr/children/children.htm

6. **Fix public programs:** Recommendations include demonstrating cost-benefits of prevention and disease management; overhauling Medicaid EPSDT dental programs; encouraging provider participation in Medicaid through various incentives; and enhancing the strength and viability of the dental safety net.
7. **Grow an adequate workforce:** Recommendations promote prioritizing community-based educational experiences for dentists and hygienists in training; expanding the numbers of pediatric and public health dentists; engaging allied personnel more effectively especially in health promotion and disease prevention; and encouraging an expanded number of minority providers in the dental professions.
8. **Empower families and enhance their capacities:** Recommendations include media and key-contact campaigns to translate oral health needs into demands for dental educational and treatment services; and using risk-based methods to tailor care to the individual needs of children and their families while respecting family and cultural determinants of health and health behaviors.

While these recommendations focused particularly on children, they are useful strategies for addressing almost all under-served populations.

Healthy People 2010

Published by the Office of Disease Prevention and Health Promotion, US DHHS, *Healthy People 2010* is the "prevention agenda" for the nation. It includes a comprehensive set of disease prevention and health promotion objectives for the US, designed to identify and reduce preventable threats to health and identifies two broad goals for achievement by 2010:

1. Increase quality and years of health life; help individuals of all ages increase life expectancy and improve quality of life.
2. Eliminate health disparities among all segments of the population.[5]

Healthy People 2010 includes oral health among its principal areas of focus, and sets the following as its goal: Prevent and control oral and craniofacial diseases, conditions and injuries and improve access to related services. Additionally, the document details a number of objectives specific to oral health, in areas such as dental caries experience and untreated tooth decay; tooth loss; periodontal diseases; sealants; fluoridation; school-based services; health centers with oral health services; and use of the oral health care system.

Summary of National Surveys

Healthy People 2010 data are derived from a number of national surveys fielded by various US Department of Health and Human Services agencies. These include Head Start surveys, National Health Interview Surveys, Medical Expenditure Panel Surveys, and National Health and Nutrition Examination Surveys among others. Taken together they tell a story of mixed oral health and profound disparities in oral health and access to dental care for children, adults, and those with special health care needs.

In summarizing oral health findings, the *Healthy People 2010* document reports that the oral health of US citizens is still of concern and that oral health varies widely by socioeconomic status

5. US Department of Health and Human Services. *Healthy People 2010.* Washington, DC: US Department of Health and Human Services, Office of Disease Prevention and Health Promotion.

and general health condition. For example, 39% of people aged 65 or older with only a high school education are missing all of their teeth while only 13% of people with some college education are edentulous. National surveys reveal that the three primary diseases of the mouth – tooth decay, periodontal disease, and oral/pharyngeal cancer – remain too common, especially given that all are amenable to prevention.[6]

Tooth decay continues to be the single most common chronic disease of childhood with nearly one in five preschoolers, one in two second graders and three in four adolescents experiencing tooth decay. Caries continues into adulthood with one in three US adults reportedly having untreated tooth decay. Unmet need for dental care has been reported for children with the finding that 73% of all children with one or more unmet health care needs has a parentally reported unmet need for dental care – three times greater than unmet needs for medical care. Nationally, among children covered by Medicaid, only one in four obtains a dental service in a year. This is a particularly significant finding because young children living in poor families (including those eligible for Medicaid) are nearly twice as likely to have tooth decay, have twice as many cavities when they do, and experience pain twice as often as children living in affluent families (>400% of poverty). Children of color are also more likely to experience tooth decay and are generally less likely to receive dental services.

Periodontal (gum) disease is highly prevalent and is increasingly recognized to impact significantly and negatively on general health. *Healthy People 2010* reports that one in five adults has destructive periodontal disease – disease that frequently leads to tooth loss.

National surveys show that "some 31,000 new cases of oral and pharyngeal cancer were expected to be diagnosed in 1999, and approximately 8,100 persons were expected to die from the disease. Oral and pharyngeal cancer occurs more frequently than leukemia, Hodgkin's disease, and cancers of the brain, cervix, ovary, liver, pancreas, bone, thyroid gland, testes, and stomach. Oral and pharyngeal cancer is the 7th most common cancer found among white males (4th most common among black men) and the 14th most common among US women. The 5-year survival rate for oral and pharyngeal cancer is only 52 percent and most of these cancers are diagnosed at late stages."[7]

Federal and private surveys of dental insurance coverage reveal that having dental insurance is strongly associated with having more dental care – even for high-income individuals and families. Yet two and a half times more children are without dental coverage than medical coverage and over 100 million Americans have no dental coverage at all. Similarly expenditures on dental care vary significantly by family income. Not surprisingly, low income families expend disproportionately more of their income on dental care than higher income families.

Taken all together, these national studies reflect observations in New Hampshire that oral health continues to be problematic for many and that the benefits of good oral health are not uniformly enjoyed by all of its citizens.

Significant Legislative Initiatives

Recent years have seen significant federal and state legislation related to oral health and access to dental care – legislation that may help shape and inform initiatives undertaken in response to this plan. Additionally, a variety of public-private partnerships (including this one) are underway and national organizations of state policymakers have increasingly attended to this issue. Among organi-

6. *Healthy People 2010* Chapter 21 Oral Health op cit.

7. Edelstein B.L. "Disparities in Oral Health and Access to Care: Findings of National Surveys." *Ambulatory Pediatrics,* 2(2 Supplement) 2002.

zations involved in this process are the National Governors Association, the Conference of State Legislatures, the Association of State and Territorial Health Officers, and the Association of Maternal and Child Health Programs. Many recent advances, however, have been dampened significantly by the current economic downturn with its stringent demands on state budgets.

President Bush signed the Safety Net Amendments Act in January 2003 which includes authorization for matching grants to states (states must contribute 40% in cash or in-kind sources to access one million dollars in federal grants) to improve dental access, particularly in rural areas. In 2000, the Child Health Act authorized grants to states to address novel preventive strategies around early childhood tooth decay. Neither of these federal programs has yet been funded in the current budget process.

When last considered by Congress, the Health Professions Training program was expanded to include funds to train not only advanced-practice general dentists and public health dentists but also pediatric dentists. This has resulted in a nearly 10% increase in the number of children's dentists being trained. Current lobbying efforts seek to expand another federal training program for pediatric dentists from training 9 dentists per year to 60 per year. Also under consideration is the Children's Dental Health Act which would provide additional grants to states to improve dental access for children. Similarly, the recently enacted Children's Hospital Graduate Medical Education program allows for training additional pediatric dentists in specialty hospitals.

More ominous for ensuring access to care are recent state changes in Medicaid programs. As of March 2003 only 14 states continue to provide reasonably comprehensive dental benefits to poor adults through Medicaid. More than half of the states, including New Hampshire, provide only minimal care for relief of pain and infection or no dental care at all. The trend toward erosion of dental benefits is beginning to impact children as well. Increasing numbers of states are cutting dental benefits in their state child health insurance plans and the Administration has recently advanced two programs that would allow reduction in dental coverage for poor children in Medicaid.

Among state-level initiatives of note are efforts to extend the roles of dental hygienists and dental assistants, to increase community water fluoridation, to engage medical providers in oral health promotion, to license foreign dental school graduates, to encourage post-doctoral dental training, to expand the availability of sealants, and to provide incentives to encourage dentists to practice in geographically underserved areas.

Healthy New Hampshire 2010

Using the national *Healthy People 2010* framework, *Healthy New Hampshire 2010* is the state's agenda for health promotion and disease prevention for the first decade of the 21st century. Developed collaboratively by the Healthy New Hampshire 2010 Leadership Council and the New Hampshire Department of Health and Human Services, "it represents a shared vision and acknowledges a shared responsibility for improving the health and quality of life for all New Hampshire citizens."[8] With regard to oral health, this document identifies barriers to good oral health. These include cost of care, lack of dental insurance, lack of public programs, a shortage of dentists and dental hygienists, language and cultural barriers, and fear of dental visits. It also sets as its objectives an increase in the percentage of third grade children with dental sealants on their teeth and an increase in the percentage of New Hampshire residents served by a fluoridated public water supply.

8. New Hampshire Department of Health and Human Services. *Healthy New Hampshire 2010.* Concord, NH, 2001.

Vision and Recommendations: A Framework for Actions

Throughout the planning process, the Coalition for New Hampshire Oral Health Action operated with a set of underlying premises regarding the promotion of oral health and the provision of dental care: While health and health care are ultimately family and community considerations and New Hampshire's regions and communities have unique capacities and constraints, state level activity can support communities in improving oral health and dental care. It was determined that the resulting plan, therefore, should not only identify a "standard" level of oral health for all residents, but should articulate priorities for both statewide and community-level action; identify tools and resources to address oral health needs; coordinate and support existing community-based systems; and empower individuals to access and utilize available resources.

It was acknowledged by the Coalition that while there are common underlying issues and problems across New Hampshire, variation exists from region to region, community to community – in terms of unique needs, available resources and competencies. This means that there is the need to identify statewide initiatives that will have the capacity to benefit all communities – such as improving Medicaid reimbursement and establishing funding mechanisms for local system development – knowing that these initiatives may create different outcomes community by community.

This plan establishes a vision and model for a community-based integrated oral health system, which is designed to improve oral health and dental care for New Hampshire residents by emphasizing where needs are unmet and care inaccessible, and prioritizing resource distribution to address those issues. This community-based model implies that local systems will be built around functional geographical areas, and will be both internally and externally accountable. It will also require collaboration and communication among community-based systems to ensure that the future is informed and shaped by both successes and failures. The model envisions an on-going role for the Coalition for New Hampshire Oral Health Action to advocate for and initiate state-level action and monitor and support community-level implementation.

It is not the intent of this report to provide a comprehensive review of the oral health status of New Hampshire's residents, nor a restatement of the scope of the problem. Instead, on the following pages, the Coalition for New Hampshire Oral Health Action offers a vision and discussion of what actions will be necessary to bring oral health and its positive impact on well-being, to the residents of New Hampshire. That there are disparities in the oral health status of New Hampshire residents is undisputed. Finding ways to reduce those disparities is the subject of this report.

The goals and objectives identified by the Coalition have been presented in the framework outlined in the Surgeon General's Report, *Oral Health in America,* and are organized under the principal components identified in that document. This plan is intended to be a "living document" and, as such, will be revised from time to time as necessary and appropriate. Initial responsibilities for the implementation of primary objectives have been assigned. Further responsibilities and timelines will be developed as the implementation process begins.

Vision

Residents of New Hampshire will have the opportunity to achieve and maintain oral health through access to an effective system of health services which promotes appropriate health behaviors.

These services, which include assessment, prevention, health promotion, education, counseling, and treatment, will be provided through an integrated system of health care that assures accessibility, affordability, high quality, appropriateness to individuals' needs, and responsiveness to individuals' circumstances.

Recommendations

Principle

I. Change perceptions regarding oral health and disease so that oral health becomes an accepted component of general health.

Goal

I.A. Increase public perception of the importance of good oral health as a component of overall health.

Objective

I.A.1. Develop a statewide oral health awareness and education campaign.

Strategies

I.A.1.a. Develop a public education campaign.

I.A.1.b. Develop a strong advocacy campaign for elected officials, government, private sector leaders and charitable foundations, to create public policy for improving oral health.

Objective

I.A.2. Integrate oral health with general medical care.

Strategies

I.A.2.a. Provide educational guidelines for the prevention, identification and treatment of oral diseases to primary medical care providers.

I.A.2.b. Provide oral assessment, health promotion and referrals as necessary to patients in all primary care settings.

I.A.2.c. Support recommendations that by the age of one year, all children receive an oral assessment, and referral to a dentist as necessary.

I.A.2.d. Engage and empower families in establishing basic oral health, from the prenatal period on.

I.A.2.d.(i). Utilize existing programs such as Home Visiting NH and Parents as Teachers to reinforce principles of good oral health.

I.A.2.e. Include oral health objectives in all published health promotion and prevention protocols and guidelines.

Objective

I.A.3. Integrate comprehensive oral health curricula in general health curricula and promote in all New Hampshire schools.

Strategies

I.A.3.a. Complete the development of oral health curricula for all grades.

I.A.3.a.(i). Maintain and update oral health curricula as necessary.

I.A.3.b. Coordinate efforts among the Department of Education, oral health providers, school administration, school nurses and school health educators to promote appropriate implementation of curricula.

I.A.3.c. Work toward the elimination of unhealthy snacks and drinks from school vending machines.

I.A.3.c.(i). Promote the use of the Task Force of NH Health Professionals for Healthy School Nutrition Tool Kit.

Principle

II. Apply science effectively to improve oral health.

Goal

II.A. Assess the oral health status of New Hampshire residents.

Objective

II.A.1. Develop and maintain a comprehensive epidemiological oral health surveillance system to identify, investigate and monitor oral health and oral health services.

Strategies

II.A.1.a. Identify critical data elements and standards needed for effective planning and program development.

II.A.1.b. Continue school-based oral health surveys every three years to assess trends in the oral health status of children enrolled in New Hampshire schools.

II.A.1.c. Develop data collection and analysis capacities at the local level through training and technical support.

Goal

II.B. Reduce the burden and progression of oral diseases in New Hampshire by integrating best available science and evidence-based treatment into clinical practice and policy.

Objective

II.B.1. Access and disseminate leading edge information on oral health science.

Strategy

II.B.1.a. Establish and maintain linkages with selected regional dental schools, research institutes and oral health policy centers.

Goal

II.C. Reduce the incidence of dental caries through evidence-based public health interventions.

Objective

II.C.1. Maximize the benefits of fluoride in preventing and controlling dental caries.

Strategies

II.C.1.a. Develop a statewide community action campaign to achieve fluoridation of public water supplies.

II.C.1.b. Simplify the process for prescribing and using systemic and topical fluoride by primary care physicians.

II.C.1.b.(i). Simplify access to and reporting of well water testing for fluoride.

Objective

II.C.2. Implement and maintain the capacity for a statewide school-based sealant program.

Strategies

II.C.2.a. Create the capacity for a universal school-based sealant program.

II.C.2.a.(i). Engage hygienists, dental assistants and volunteer dentists to implement school-based sealant program.

Goal

II.D. Increase early detection and reduce the incidence of oral and pharyngeal cancers.

Objective

II.D.1. Support efforts to reduce tobacco and alcohol use among New Hampshire residents.

Strategies

II.D.1.a. Increase awareness of the link between tobacco and alcohol use and oral and pharyngeal cancers.

II.D.1.b. Coordinate efforts among oral health providers, school administration, school nurses, school health educators, alcohol and tobacco prevention task forces, etc., to implement comprehensive educational programs regarding the dangers of tobacco and alcohol use.

II.D.1.c. Educate primary care providers regarding the importance of early detection and treatment of oral and pharyngeal cancers.

II.D.1.d. Enlist oral health and primary care providers to participate in alcohol and tobacco education and cessation programs.

II.D.1.d.(i). Provide continuing education to oral health and primary care providers regarding effective approaches to reduce the use of alcohol and tobacco.

Goal

II.E. Reduce the incidence of oral and facial injuries.

Objective

II.E.1. Recommend the requirement of the use of face-masks and mouthguards in all school and other sports programs.

Strategy

II.E.1.a. Coordinate efforts among school personnel, coaches, and recreation programs regarding the importance of injury prevention.

Principle

III. Build an effective health infrastructure that meets the oral health needs of all and integrates oral health effectively into overall health.

Goal

III.A. Enhance the existing workforce to meet the diverse oral health needs of all New Hampshire residents.

Objective

III.A.1. Maximize the capacity of the oral health workforce to address the needs of the population.

Strategies

III.A.1.a. Establish a task force comprised of appropriate leaders and policymakers to monitor and address the changing needs of the population.

III.A.1.a.(i). Conduct periodic evaluations of the workforce model, and refine as necessary to address the evolving needs and demands of the population.

III.A.1.a.(ii). Develop flexibility in workforce policies to assure that population needs can be met in a timely and effective manner.

III.A.1.b. Develop and promote career counseling at all New Hampshire high schools to encourage students to pursue careers in oral health.

III.A.1.c. Recruit more dentists, especially those who see high risk and vulnerable populations such as the economically disadvantaged, young children, the elderly, the developmentally disabled, and those with HIV/AIDS, to offset a provider shortage in New Hampshire.

III.A.1.c.(i). Pursue the potential to fund positions for New Hampshire students at New England dental schools.

III.A.1.c.(ii). Continue to provide loan repayment to dentists willing to serve New Hampshire's indigent and high risk populations.

III.A.1.d. Pursue the use of dental externs and residents by establishing training programs at safety net facilities.

III.A.1.e. Expand the number of dental hygienists in New Hampshire working in both public health and private office settings.

III.A.1.e.(i). Expand the facilities and training program for dental hygienists at the New Hampshire Technical Institute, and maximize their use.

III.A.1.e.(i).(a). Create a partnership with the New Hampshire Dental Society to fund the training program.

III.A.1.e.(ii). Recruit more dental hygienists to New Hampshire.

III.A.1.e.(ii).(a). Pursue state and private foundation support for recruitment and training of public health hygienists.

III.A.1.f. Pursue the use of new dental and non-dental providers to enhance the oral health workforce.

III.A.1.f.(i). Create the capacity to use expanded function dental assistants (EFDA) in dental practices and safety net facilities to improve productivity.

III.A.1.f.(ii). Use primary medical care practitioners to provide oral assessment and preventive services.

III.A.1.f.(ii).(a). Establish training and protocols for basic oral examination for primary care medical providers.

III.A.1.f.(iii). Build the capability among prenatal care providers to provide patients with oral assessment, education and appropriate referral for oral health services.

III.A.1.f.(iv). Develop a new professional category of Oral Health Educator.

Objective

III.A.2. Integrate, improve, expand and sustain the oral health component of the healthcare safety net.

Strategies

III.A.2.a. Advocate for funding for those organizations that provide oral health services to high risk and underserved populations from New Hampshire's public and private funders.

III.A.2.b. Pursue federal and private foundation funding to augment state-funded oral health initiatives.

III.A.2.c. Encourage all community health centers to provide oral health services.

III.A.2.d. Encourage private dentists and hygienists to provide services within the safety net.

III.A.2.e. Utilize the state loan repayment program for dentists and hygienists who agree to practice in underserved areas.

III.A.2.f. Encourage New Hampshire hospitals to play a major role in supporting the safety net.

III.A.2.f.(i). Advocate that all New Hampshire hospitals participate in establishing, financing and maintaining safety net oral health services in their communities.

III.A.2.f.(ii). Encourage New Hampshire hospitals to prioritize oral health services in the allocation of community benefit dollars.

III.A.2.f.(iii). Advocate that all New Hampshire hospitals develop and maintain a dental on-call system through their Emergency Departments.

Principle

IV. Remove known barriers between people and oral health services.

Goal

IV.A. Eliminate barriers and enhance access to good oral health.

Objective

IV.A.1 Create system-level improvements to treat high risk populations such as children, the elderly, uninsured adults, the developmentally disabled, the mentally ill and those with HIV/AIDS.

Strategies

IV.A.1.a. Increase the capacity of the Medicaid program.

IV.A.1.a.(i). Reinstitute the managed care option to NH Medicaid.

IV.A.1.a.(ii). Streamline procedures for dental provider participation in Medicaid.

IV.A.1.b. Pursue an increase in Medicaid reimbursement rates for dental and hygiene services to encourage more provider participation in the Medicaid program.

IV.A.1.c. Establish coding for Medicaid reimbursement for primary care providers to deliver oral health procedural services.

Objective

IV.A.2. Enhance the competency of the oral health workforce to treat high risk populations.

Strategies

IV.A.2.a. Develop dental residency programs within programs that focus on high risk populations.

IV.A.2.b. Develop continuing education programs for the oral health workforce that focus on the unique issues of treating high risk populations.

Objective

IV.A.3. Build a care coordination and case management system especially for those at high risk.

Strategies

IV.A.3.a. Implement a care coordination model that uses education and prevention to improve oral health.

IV.A.3.a.(i). Provide a link between individuals and all service providers.

IV.A.3.a.(ii). Reimburse for care coordination.

IV.A.3.b. Provide oral health services at sites used by high risk populations, such as adult/child day care centers.

Objective

IV.A.4. Improve access to dental insurance among all sectors of the population.

Strategies

IV.A.4.a. Encourage New Hampshire employers to offer dental insurance.

IV.A.4.a.(i). Increase the awareness among New Hampshire business and industry of the importance of good oral health to productivity.

IV.A.4.b. Maintain and increase participation in current programs such as Healthy Kids Gold and Healthy Kids Silver, and reinstate NEDD Kids.

IV.A.4.c. Maintain and expand Medicaid to cover non-emergent oral health services for adults.

Principle

V. Use public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.

Goal

V.A. Further integrate the efforts between the public and private sectors to address the oral health needs of the residents of New Hampshire.

Objective

V.A.1. Create a statewide clearinghouse to serve as a resource for information on existing oral health programs, technical support, funding consultation and successful public health models.

Strategies

V.A.1.a. Conduct a baseline assessment of all current models of oral health service delivery.

V.A.1.b. Establish best practices for oral health service delivery.

V.A.1.c. Develop a toolbox for building community collaboratives for oral health service delivery.

Objective

V.A.2. Promote regional and community-based collaborative efforts among agencies, organizations and individuals to address oral health needs.

Strategies

V.A.2.a. Establish funding priorities that require collaboration and coordination within communities.

V.A.2.b. Develop and maintain linkages to local and regional business/industry groups.

Objective

V.A.3. Monitor the implementation of the New Hampshire Oral Health Plan.

Strategies

V.A.3.a. Convene and maintain a subgroup of the Coalition to oversee the monitoring of implementation of the New Hampshire Oral Health Plan.

V.A.3.b. Identify funding sources to assure ongoing support for implementation activities.

Objective

V.A.4. Review and revise the New Hampshire Oral Health Plan as necessary.

Appendices

Appendix 1.
Commitment to the Implementation of the Oral Health Plan

The following letter of commitment will be signed by all Coalition members.

The Coalition for New Hampshire Oral Health Action has worked collaboratively on the development of the New Hampshire Oral Health Plan: A Framework for Action, a plan for improving the oral health of New Hampshire Residents.

Implementation of the plan will require continued management and collaboration among the stakeholders. To ensure that the work of the Coalition moves forward to achieve its goals and objectives, the members hereby affirm that they will agree to use best efforts to:

1. Promote and participate in the implementation of the Framework for Action.
2. Serve as liaison to inform their organizations and constituencies about Coalition initiatives.
3. Agree to report periodically to the Coalition on the progress toward achieving those recommendations in the Plan relevant to their organizations and constituencies.
4. To continue as a member of the Coalition.
5. To consider an investment in the sustainability of the Coalition and the implementation of the Framework for Action.

Name: _____

Organization: _____

Date: _____

Signature: _____

Appendix 2.
Executive Summary, Oral Health in America: A Report of the Surgeon General

A Framework for Action

All Americans can benefit from the development of a National Oral Health Plan to improve quality of life and eliminate health disparities by facilitating collaborations among individuals, health care providers, communities, and policymakers at all levels of society and by taking advantage of existing initiatives. Everyone has a role in improving and promoting oral health. Together we can work to broaden public understanding of the importance of oral health and its relevance to general health and well-being, and to ensure that existing and future preventive, diagnostic, and treatment measures for oral diseases and disorders are made available to all Americans. The following are the principal components of the plan:

Change perceptions regarding oral health and disease so that oral health becomes an accepted component of general health.

- Change public perceptions. Many people consider oral signs and symptoms to be less important than indications of general illness. As a result, they may avoid or postpone needed care, thus exacerbating the problem. If we are to increase the nation's capacity to improve oral health and reduce health disparities, we need to enhance the public's understanding of the meaning of oral health and the relationship of the mouth to the rest of the body. These messages should take into account the multiple languages and cultural traditions that characterize America's diversity.
- Change policymakers' perceptions. Informed policymakers at the local, state, and federal levels are critical in ensuring the inclusion of oral health services in health promotion and disease prevention programs, care delivery systems, and reimbursement schedules. Raising awareness of oral health among legislators and public officials at all levels of government is essential to creating effective public policy to improve America's oral health. Every conceivable avenue should be used to inform policymakers – informally through their organizations and affiliations and formally through their governmental offices – if rational oral health policy is to be formulated and effective programs implemented.
- Change health providers' perceptions. Too little time is devoted to oral health and disease topics in the education of nondental health professionals. Yet all care providers can and should contribute to enhancing oral health. This can be accomplished in several ways, such as including an oral examination as part of a general medical examination, advising patients in matters of diet and tobacco cessation, and referring patients to oral health practitioners for care prior to medical or surgical treatments that can damage oral tissues, such as cancer chemotherapy or radiation to the head and neck. Health care providers should be ready, willing, and able to work in collaboration to provide optimal health care for their patients. Having informed health care professionals will ensure that the public using the health care system will benefit from interdisciplinary services and comprehensive care. To prepare providers for such a role will involve, among other factors, curriculum changes and multidisciplinary training.

Accelerate the building of the science and evidence base and apply science effectively to improve oral health.

Basic behavioral and biomedical research, clinical trials, and population-based research have been at the heart of scientific advances over the past decades. The nation's continued investment in research is critical for the provision of new knowledge about oral and general health and disease for years to come and needs to be accelerated if further improvements are to be made. Equally important is the effective transfer of research findings to the public and health professions.

However, the next steps are more complicated. The challenge is to understand complex diseases caused by the interaction of multiple genes with environmental and behavioral variables – a description that applies to most oral diseases and disorders – and translate research findings into health care practice and healthy lifestyles.

This report highlights many areas of research opportunities and needs in each chapter. At present, there is an overall need for behavioral and clinical research, clinical trials, health services research, and community-based demonstration research. Also, development of risk assessment procedures for individuals and communities and of diagnostic markers to indicate whether an individual is more or less susceptible to a given disease can provide the basis for formulating risk profiles and tailoring treatment and program options accordingly.

Vital to progress in this area is a better understanding of the etiology and distribution of disease. But as this report makes clear, epidemiologic and surveillance databases for oral health and disease, health services, utilization of care, and expenditures are limited or lacking at the national, state, and local levels. Such data are essential in conducting health services research, generating research hypotheses, planning and evaluating programs, and identifying emerging public health problems. Future data collection must address differences among the subpopulations making up racial and ethnic groups. More attention must also be paid to demographic variables such as age, sex, sexual orientation, and socioeconomic factors in determining health status. Clearly, the more detailed information that is available, the better can program planners establish priorities and targeted interventions.

Progress in elucidating the relationships between chronic oral inflammatory infections, such as periodontitis, and diabetes and glycemic control as well as other systemic conditions will require a similar intensified commitment to research. Rapid progress can also occur with efforts in the area of the natural repair and regeneration of oral tissues and organs. Improvements in oral health depend on multidisciplinary and interdisciplinary approaches to biomedical and behavioral research, including partnerships among researchers in the life and physical sciences, and on the ability of practitioners and the public to apply research findings effectively.

Build an effective health infrastructure that meets the oral health needs of all Americans and integrates oral health effectively into overall health.

The public health capacity for addressing oral health is dilute and not integrated with other public health programs. Although the *Healthy People 2010* objectives provide a blueprint for outcome measures, a national public health plan for oral health does not exist. Furthermore, local, state, and federal resources are limited in the personnel, equipment, and facilities available to support oral health programs. There is also a lack of available trained public health practitioners knowledgeable about oral health. As a result, existing disease prevention programs are not being implemented in many communities, creating gaps in prevention and care that affect the nation's neediest populations. Indeed, cutbacks in many state budgets have reduced staffing of state and territorial dental programs and curtailed oral health promotion and disease prevention efforts. An enhanced public health infrastructure would facilitate the development of strengthened partnerships with private practitioners, other public programs, and voluntary groups.

There is a lack of racial and ethnic diversity in the oral health workforce. Efforts to recruit members of minority groups to positions in health education, research, and practice in numbers that at least match their representation in the general population not only would enrich the talent pool, but also might result in a more equitable geographic distribution of care providers. The effect of that change could well enhance access and utilization of oral health care by racial and ethnic minorities.

A closer look at trends in the workforce discloses a worrisome shortfall in the numbers of men and women choosing careers in oral health education and research. Government and private sector leaders are aware of the problem and are discussing ways to increase and diversify the talent pool, including easing the financial burden of professional education, but additional incentives may be necessary.

Remove known barriers between people and oral health services.

This report presents data on access, utilization, financing, and reimbursement of oral health care; provides additional data on the extent of the barriers; and points to the need for public-private partnerships in seeking solutions. The data indicate that lack of dental insurance, private or public, is one of several impediments to obtaining oral health care and accounts in part for the generally poorer oral health of those who live at or near the poverty line, lack health insurance, or lose their insurance upon retirement. The level of reimbursement for services also has been reported to be a problem and a disincentive to the participation of providers in certain public programs. Professional organizations and government agencies are cognizant of these problems and are exploring solutions that merit evaluation. Particular concern has been expressed about the nation's children, and initiatives such as the State Children's Health Insurance Program, while not mandating coverage for oral health services, are a positive step. In addition, individuals whose health is physically, mentally, and emotionally compromised need comprehensive integrated care.

Use public-private partnerships to improve the oral health of those who still suffer disproportionately from oral diseases.

The collective and complementary talents of public health agencies, private industry, social services organizations, educators, health care providers, researchers, the media, community leaders, voluntary health organizations and consumer groups, and concerned citizens are vital if America is not just to reduce, but to eliminate, health disparities. This report highlights variations in oral and general health within and across all population groups. Increased public-private partnerships are needed to educate the public, to educate health professionals, to conduct research, and to provide health care services and programs. These partnerships can build and strengthen cross-disciplinary, culturally competent, community-based, and community-wide efforts and demonstration programs to expand initiatives for health promotion and disease prevention. Examples of such efforts include programs to prevent tobacco use, promote better dietary choices, and encourage the use of protective gear to prevent sports injuries. In this way, partnerships uniting sports organizations, schools, churches, and other community groups and leaders, working in concert with the health community, can contribute to improved oral and general health.

Conclusion

The past half century has seen the meaning of oral health evolve from a narrow focus on teeth and gingiva to the recognition that the mouth is the center of vital tissues and functions that are critical to total health and well-being across the life span. The mouth as a mirror of health or disease, as a sentinel or early warning system, as an accessible model for the study of other tissues and organs, and as a potential source of pathology affecting other systems and organs has been described in earlier chapters and provides the impetus for extensive future research. Past discoveries have enabled Americans today to enjoy far better oral health than their forebears a century ago. But the evidence that not all Americans have achieved the same level of oral health and well-being stands as a major challenge, one that demands the best efforts of public and private agencies and individuals.

Appendix 3.

Dental and Medical Primary Care Workforce and Education Data

Prepared by David M. Krol, M.D.

Contents

DENTISTS

Table 1: Number of Dentists 1998-2008 (projected)

Reflecting national trends, the number of dentists serving New England's population is reasonably stable. Recent years have seen significant increases (~25% from 1998-2001), perhaps reflecting Boston dental school graduates' movement outward from the more dentist-congested population rings surrounding the core metropolitan area and growth of New Hampshire's southern population. Federal health professional workforce projections out to 2008 suggest a decline in absolute numbers of New Hampshire dentists of ~8% between 2001 and 2008, even as the state's population is anticipated to increase.

Number of Dentists 1998 - 2008 (projected)

	1998	2000	2001	2008
Connecticut	3,400	2,981	2,669	3,750
Maine	600	584	608	700
Massachusetts	4,250	NA	4,500	4,850
New Hampshire	**700**	**825**	**868**	**800**
Rhode Island	750	NA	719	800
Vermont	300	350	347	300

Source: State occupational projections: 1998-2008; http://dws.state.ut.us/occ/projections.asp Accessed March 5, 2002.

Table 2: Ratio of Dentists per 100,000 population 1998

New England enjoys a dentist-to-population ratio that is nearly 9% higher than the US average but shows wide variation between states — from Maine with the fewest to Connecticut with the most. New Hampshire's dentist-to-population ratio ranks third lowest for New England. It's dentist availability is 6.4% higher than the US average but 5% lower than the NE average. These findings are not adjusted for age which may be a significant factor, given the overall "graying" of US dentists and the migration of younger professionals to western states where population growth is most dramatic.

Ratio of Dentists per 100,000 Population 1998

	Dentists/1000 population 1998	Rank Order
Connecticut	65.9	1
Maine	43.9	6
Massachusetts	61.6	2
New Hampshire	**51.5**	**4**
Rhode Island	50.1	5
Vermont	52.7	3
United States	48.4	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/health-workforce/profiles/default.htm

Table 3: Percent Change in Dentist Population per 100,000 population 1991-1998

Between 1991 and 1998 New Hampshire experienced a 9% decrease in the number of dentists for every 100,000 people compared to a national decline of 12% and New England average decline of 7%. At 9%, New Hampshire lost relatively more dentist workforce for its population than did Rhode Island, Maine, and Vermont.

Change in Dentists per 100,00 Population: 1991-1998

	Percent change 1991-1998	Rank Order
Connecticut	-11%	1
Maine	-3%	5
Massachusetts	-11%	2
New Hampshire	**-9%**	**3**
Rhode Island	-6%	4
Vermont	-2%	6
United States	-12%	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002.

Table 4: Percentage of Female Dentists 1998

In 1998 10.8% of the dentists in New Hampshire were women. This figure is less than the national average of 12.6%, but average for New England.

Over recent years, the percentage of new dentists who are women has steadily increased, raising questions regarding future dental workforce productivity as women elect to balance family and profession. Initial evidence about women's career patterns suggests that over a lifetime, female dentists are as productive as male dentists, but that their peak productivity tends to occur later in their practice careers.

Some suggest that women dentists may be more attuned to addressing the needs of the underserved – although there is no empirical evidence to support that belief at this time.

Percentage of Female Dentists 1998

	Percentage of female dentists 1998	Rank Order
Connecticut	10.8%	4
Maine	8.9%	6
Massachusetts	14.4%	1
New Hampshire	**10.8%**	**3**
Rhode Island	11.3%	2
Vermont	10.0%	5
United States	12.6%	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002.

Table 5: Dental Schools and Advanced Dental Education

Of New England's four dental schools, three are located in Boston (Boston University, Tufts University, Harvard University) and one is in Connecticut (University of Connecticut). Boston schools are private, while the University of Connecticut is publicly supported.

Dentistry does not require advanced training beyond dental school, although some elect advanced training in either general dentistry or one of the eight recognized dental sub specialties. Advanced dental education programs included in this table are General Practice Residencies (one- or two-year programs, typically in hospitals, that further the training of general dentists); Advanced Education Programs in General Dentistry (like General Practice Residencies, except typically based in dental schools); and Pediatric Dentistry training programs that prepare dentists as specialists in the care of children. Pediatric dentistry residencies are affiliated with each of the four dental schools identified here, and a new pediatric dentistry residency has been started (in 2002) at Yale University.

Dental Schools and Advanced Dental Education

	Number of Dental Schools and Advanced Training Programs	Rank Order
Connecticut	9	2
Maine	0	4
Massachusetts	14	1
New Hampshire	**1**	**3**
Rhode Island	1	3
Vermont	1	3

Source: Directory of ADEA Institutional Members and Association Officers 2001-2002. American Dental Education Association.

DENTAL HYGIENISTS

Table 6: Number of Hygienists 1998 -2008 (projected)

Federal dental workforce data suggests a reasonably steady supply of Registered Dental Hygienists between 1998 and 2001 with an anticipated major increase of 50.7% between 2001 and 2008.

Registered Dental Hygienists are licensed dental professionals who provide an array of preventive services including health education, prophylaxis, and fluoride treatments as well as additional preventive treatments as authorized by individual state statutes and regulations. Depending upon the state, hygienists may function under the "direct" or "indirect" supervision of a dentist or may function independently of dentists in specific sites or in all sites.

Services provided by hygienists represent one important component of comprehensive dental care. Unlike nurse practitioners in medicine, who provide a comprehensive range of services to their level of expertise, dental hygienists' purview is specifically related to preventive (rather than corrective) care.

Number of Hygienists 1998 - 2008 (projected)

	1998	2000	2001	2008
Connecticut	2,700	3,060	2,700	3,400
Maine	700	715	912	950
Massachusetts	4,750	5,596	6,600	7,050
New Hampshire	**1,000**	**900**	**995**	**1,500**
Rhode Island	750	NA	795	900
Vermont	550	450	450	750

Sources: Synopses of state dental public health programs, Centers for Disease Control, 2000; http://www2.cdc.gov/nccdphp/doh/synopses/index.asp Accessed February 20, 2002

State occupational projections: 1998-2008; http://almis.dws.state.ut.us/occ/projections.asp Accessed March 5, 2002.

Table 7: Ratio of Hygienists per 100,000 Population 1998

All New England states enjoy a hygienist-to-population ratio higher than the United States, with nearly 50% more hygienists to population than the United States average. New Hampshire ranks second only to Vermont among New England States and has a hygienist-to-population ratio that is 62% higher than the United States mean. These findings suggest a potentially greater availability of preventive services in New Hampshire than in most other states.

Ratio of Hygienists per 100,000 Population 1998

	Dental Hygienists/1000 Population 1998	Rank Order
Connecticut	81.9	3
Maine	56.1	6
Massachusetts	77.3	5
New Hampshire	**84.3**	**2**
Rhode Island	78.0	4
Vermont	89.7	1
United States	52.1	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002

Table 8: Percent Change in Ratio of Hygienist Graduates 1985-86 to 1995-96

This table anticipates future hygienist availability in New Hampshire and New England. Additional information is needed for the period after 1996 for workforce projection and planning purposes, especially to reconcile these numbers with federal estimates of the hygienist workforce in 2008.

Percent Change in Ratio of Hygienist Graduates per 100,000 population 1985-86 to 1995-96

	Percent change in hygienist graduates per 100,000 Population	Rank Order
Connecticut	-8%	4
Maine	-36%	1
Massachusetts	-8%	5
New Hampshire	**-17%**	**3**
Rhode Island	150%	6
Vermont	-28%	2
United States	9%	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002

Table 9: Dental Hygienists: Permitted Functions and Supervision Levels by State, 2001

KEY		
	P	Physical presence of dentist is required
	N	Physical presence of dentist is not required
	U	Physical presence not required. No prior authorization by dentist required but there may be requirement for type of cooperative arrangement with a dentist(s). Some states require experience or special education by RDH.
	/	Where two letters are present in a box the first indicates the supervision level in the private dental office and the second in a "safety-net" site.
	—	Service is not a permitted function of RDH

	Prophytaxis	X-Rays	Local Anesthesia	Topical Anesthesia	Fluoride	Pit/fissue Sealants
Connecticut	N/U	N/U	—	N/U	N/U	N/U
Maine	N	N	P	N	N	N
Massachusetts	N	N	—	N	N	N
New Hampshire	**N**	**N**	**—**	**N**	**N**	**N**
Rhode Island	N	N	—	N	N	N
Vermont	N	N	P	N	N	N

	Root Planing	Soft Tissue Cuettage	Administer N2O	Study Cast Impressions	Place Perio Dressings	Remove Perio Dressings
Connecticut	N/U	—	—	N/U	N/U	N/U
Maine	N	N	—	N	P	N
Massachusetts	N	N	—	N	N	N
New Hampshire	**N**	**—**	**—**	**N**	**—**	**N**
Rhode Island	N	—	—	P	P	P
Vermont	N	—	—	N	N	N

	Place Sutures	Remove Sutures	Apply Cavity-liners and bases	Place Temporary Restorations	Remove Temporary Restorations	Place Amalgam Restorations
Connecticut	—	N/U	—	—	—	—
Maine	—	N	—	N	—	—
Massachusetts	—	N	—	N	P	P
New Hampshire	**—**	**N**	**—**	**—**	**—**	**—**
Rhode Island	—	P	P	P	P	—
Vermont	—	N	—	N	N	—

	Carve Amalgam Restorations	Finish Amalgam Restorations	Polish Amalgam Restorations	Place and Finish-Composite Resin Silicate Restore
Connecticut	—	—	N/U	—
Maine	—	—	N	—
Massachusetts	—	—	N	—
New Hampshire	**—**	**—**	**N**	**—**
Rhode Island	—	—	P	—
Vermont	—	N	N	—

Source: American Dental Hygienist Association. ADHA practice act overview chart of permitted functions and supervision levels by state. 2002.

Table 10: Ratio of Hygienists to Dentists 1998

Because dental hygienists provide one significant set of services and because of state legal requirements, they are typically collocated with dentists. The hygienist to dentist ratio suggests the preventive services capacity of dental offices.

Ratio of Hygienists to Dentists 1998

	Dental Hygienists/ Dentist Ratio 1998	Rank Order
Connecticut	1.2	6
Maine	1.3	5
Massachusetts	1.3	4
New Hampshire	**1.6**	**3**
Rhode Island	1.6	2
Vermont	1.7	1
United States	1.1	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002

Table 11: Entry Level Hygienist Programs 2002

Dental Hygiene programs vary by type and size. Some are "entry level" associates degree or bachelor degree programs, some are bachelor degree completion programs, and a few provide a "masters" level education. The "masters" level programs are typically for those seeking careers in teaching or administration. This table shows the number of "entry level" programs (Associate and Bachelor Degree programs) available in New England.

Entry Level Hygienist Programs 2002

	Number of entry level dental hygiene programs 2002	Rank Order
Connecticut	3	2
Maine	2	3
Massachusetts	7	1
New Hampshire	**1**	**4**
Rhode Island	1	4
Vermont	1	4

Source: Degree Completion Dental Hygiene Programs, American Dental Hygienists Association, 2002; http://www.adha.org/careerinfo/degree.htm Accessed March 5, 2002.

DENTAL ASSISTANTS

Table 12: Number of Dental Assistants 1998 & 2008 (projected)

Dental assistants refer to "chairside" auxiliaries who provide direct procedural assistance to dentists through "four handed dentistry." Their training may be through a short-term community college or proprietary course or "on-the-job."

Various states have developed either legislative or regulatory criteria to expand dental assistant functions as "EFDAs," (Expanded Function Dental Assistants). These additional authorizations may be modest (typically exposure of dental radiographs/x-rays) or extensive (including placement of fillings into teeth prepared by the dentist.)

Typically, a dentist works with one chairside assistant when serving a patient and may engage multiple chairside assistants in order to facilitate efficiency within and between operatories.

Number of Dental Assistants 1998 and 2008 (projected)

	1998	2008 (projected)
Connecticut	2,900	3,650
Maine	1,100	1,550
Massachusetts	5,300	8,000
New Hampshire	**900**	**1,400**
Rhode Island	700	850
Vermont	550	800

Source: State occupational projections: 1998-2008; http://slmis.dws.state.ut.us/occ/projections.asp

Table 13: Ratio of Dental Assistants per 100,000 Population 1998

Ratio of Dental Assistants per 100,000 Population 1998

	Dental Assistants per 100,000 population 1998	Rank Order
Connecticut	88.3	2
Maine	87.4	3
Massachusetts	87.1	4
New Hampshire	**77.6**	**5**
Rhode Island	72.9	6
Vermont	96.5	1
United States	85.6	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002

Table 14: Ratio of Dental Assistants to Dentists 1998

Although the absolute differences between states are small, the impact of additional assistants on practice productivity can be significant, and New England generally falls below the national mean in dentist-to-assistant ratio. This may reflect the fact that many states outside of New England typically allow dental assistants to perform some functions of a dental hygienist (partial prophylaxis), whereas New England dentists employ more hygienists than do their colleagues in other parts of the country.

Ratio of Dental Assistants to Dentists 1998

	Dental Assistants/ Dentists 1998	Rank Order
Connecticut	1.3	6
Maine	2.0	1
Massachusetts	1.4	5
New Hampshire	**1.5**	**3**
Rhode Island	1.5	4
Vermont	1.8	2
United States	1.8	—

Source: State Health Workforce Profiles, National Center for Health Workforce Information and Analysis, 1998; http://bhpr.hrsa.gov/healthworkforce/profiles/default.htm Accessed February 20, 2002

Table 15: Dental Assistant Programs 2001

Not all dental assistants are trained in formal programs. However, formal programs tend to ensure comprehensive training and relieve the dentist of responsibilities for instructing new staff. EFDA authorizations typically require formal training.

Dental Assistant Programs 2001

	Number of dental assistant education programs, 2001	Rank Order
Connecticut	6	2
Maine	1	3
Massachusetts	7	1
New Hampshire	**1**	**3**
Rhode Island	1	3
Vermont	1	3

Source: Dental Assisting, Dental hygiene and Dental Laboratory Technology Education Programs, American Dental Association, 2001 http://www.ada.org/prof/ed/programs/dahlt/index.html Accessed March 5, 2002.

MEDICAL PERSONNEL

Table 16: Medical Personnel

Primary medical care providers can be engaged in oral health promotion and disease prevention - particularly for pediatric populations- since dental caries (tooth decay) is initiated in the early toddler years when young children are frequently seen by medical personnel. Availability of primary care medical personnel for children is shown in the following chart.

Medical Personnel

	Number of general pediatricians in direct patient care 1998	Number of FP/GP in direct patient care 1998	Number of child health/ pediatric nurse practitioners active licences 2000	Rank Order
Connecticut	688	514	NA	2
Maine	147	402	70	3
Massachusetts	1,366	977	NA	1
New Hampshire	**174**	**340**	**78**	**4**
Rhode Island	199	166	NA	5
Vermont	108	218	33	6

Sources: Cull, W.L.. Physician Workforce Ratios for Child Health, 1998. American Academy of Pediatrics, June, 2000. http://www.aap.org/research/complete.pdf Accessed February 20, 2002.

Crawford, L.; Marks, C.; Gawel, S.H.; White, E.; Obichere, L. 2000 Licensure and Examination Statistics. National Council of State Boards of Nursing Inc. http://www.ncsbn.org/public/regulation/re/2000lic_exam_statistics_report_on-line.pdf Accessed February 20, 2002.

Appendix 4.
Utilization and Insurance

Contents

Table 1: Percent of Children (under age 19) with a Preventive Dental Visit – Estimations for 2000-2001

All population numbers in thousands.

		With a Preventive Visit		With NO Preventive Visit	
	Total Number of Children < 19	Number	Percent of Total	Number	Percent of Total
Connecticut	922	433	47.0%	489	53.0%
Maine	320	145	45.5%	174	54.5%
Massachusetts	1,646	712	43.3%	933	56.7%
New Hampshire	**357**	**168**	**47.0%**	**189**	**53.0%**
Rhode Island	242	106	43.8%	136	56.2%
Vermont	174	78	44.6%	96	55.4%
New England	3,660	1,642	44.9%	2,018	55.1%
United States	76,476	31,351	41.0%	45,125	59.0%

Source: National Medical Expenditure Panel Survey Data, adjusted to the states' demography as reported on CPS for 2000-2001.

Table 2: Average Number of Dental Visits for Children (under age 19) – Estimations for 2000-2001

Populations and aggregate dental visits in thousands.

		Number Visiting a Dentist During the Year		Number of Dental Visits During the Year	
	Total Number of Children <19	Number	Percent with a Visit	Total Visits	Average Visits by by those with a Visit
Connecticut	922	468	50.8%	1,351	2.88
Maine	320	164	51.2%	460	2.81
Massachusetts	1,646	765	46.5%	2,155	2.82
New Hampshire	**357**	**184**	**51.4%**	**524**	**2.85**
Rhode Island	242	115	47.7%	333	2.89
Vermont	174	91	52.1%	259	2.86
New England	3,660	1,787	48.8%	5,083	2.84
United States	76,476	34,395	45.0%	93,191	2.71

Source: National Medical Expenditure Panel Survey Data, adjusted to the states' demography as reported on CPS for 2000-2001.

Table 3: Dental Insurance Coverage of Children (under age 19) by Source of Coverage Estimations for 2000-2001

All population numbers in thousands.

	Number of Children < 19			Number of Children by Type of Insurance Coverage				Percent of Total Children < 19			
				No Dental Coverage		With Dental Coverage		No Dental		With Dental	
	Total population	Number Without Dental Insurance	Percent of Total	No Health Insurance	Private Insurance	Private Insurance	Public Insurance	No Health Insurance	Private Insurance	Private Insurance	Public Insurance
Connecticut	922	304	33.0%	65	239	500	118	7.0%	26.0%	54.2%	12.8%
Maine	320	104	32.4%	25	79	139	77	7.9%	24.6%	43.6%	24.0%
Massachusetts	1,646	508	30.9%	156	352	661	477	9.5%	21.4%	40.1%	29.0%
New Hampshire	**357**	**115**	**32.1%**	**24**	**91**	**176**	**67**	**6.6%**	**25.5%**	**49.1%**	**18.8%**
Rhode Island	242	75	31.2%	14	62	122	45	5.7%	25.5%	50.4%	18.4%
Vermont	174	49	28.3%	16	33	56	69	9.1%	19.2%	32.1%	39.6%
New England	3,660	1,155	31.6%	299	856	1,653	852	8.2%	23.4%	45.2%	23.3%
United States	76,476	25,404	33.2%	10,499	14,905	33,734	17,338	13.7%	19.5%	44.1%	22.7%

Source: National Medical Expenditure Panel Survey Data, adjusted to the states' demography as reported on CPS for 2000-2001.

Table 4: Aggregate Annual Dental Expenditures for Children (under age 19) – Estimations for 2000-2001

All population numbers in thousands. Aggregate exependiture numbers in millions.

	Population		Aggregate Expenditures by Source				Distribution of Expenditures			Average Expenditure for Those with a Visit	
	Number Of Children	Number with a Visit	Total Expenditures	Insurance		Out-of-Pocket	Insurance		Out-of-Pocket	Total	Out-of-Pocket
				Private	Public		Private	Public			
Connecticut	922	468	$218	$100	$4	$114	46%	2%	52%	$466	$243
Maine	320	164	$56	$20	$4	$32	36%	7%	57%	$342	$194
Massachusetts	1,646	765	$325	$136	$19	$171	42%	6%	52%	$425	$223
New Hampshire	**357**	**184**	**$74**	**$31**	**$3**	**$40**	**42%**	**4%**	**54%**	**$403**	**$219**
Rhode Island	242	115	$53	$23	$2	$28	44%	3%	52%	$457	$239
Vermont	174	91	$28	$10	$3	$16	35%	11%	55%	$314	$172
New England	3,660	1,787	$755	$321	$35	$400	42%	5%	53%	$422	$224
United States	76,476	34,395	$15,157	$7,069	$736	$7,352	47%	5%	49%	$441	$214

Source: National Medical Expenditure Panel Survey Data, adjusted to the states' demography as reported on CPS for 2000-2001.

Table 5: Number and percent of children (under 19) at or below 200% of poverty – by health insurance coverage and state

All population numbers in thousands. SCHIP allocation formula.
Based on a November 2001 weighting correction.

		Total children at or below 200% of poverty					
				Insurance Coverage		No Insurance Coverage	
	Total children < 19	Total	Percent	Total	Percent	Total	Percent
Connecticut	905	181	20.0%	162	17.9%	19	2.1%
Maine	301	92	30.6%	75	25.0%	17	5.6%
Massachusetts	1,663	606	36.5%	537	32.3%	70	4.2%
New Hampshire	**335**	**79**	**23.6%**	**66**	**19.9%**	**13**	**3.7%**
Rhode Island	211	59	28.0%	54	25.6%	5	2.4%
Vermont	184	77	41.7%	65	35.6%	11	6.2%
United States	75,994	28,135	37.0%	22,574	29.7%	5,562	7.3%

Source: Current Population Survey. Annual Demographic Survey, March Supplement, Accessed February 8, 2002 at http://ferret.bls.census.gov/macro/032001/health/toc.htm

Appendix 5.
Medicaid and SCHIP

Prepared by David M. Krol, M.D.

Contents

ENROLLMENT & ELIGIBILITY

Table 1a: Number of Medicaid-eligible and CHIP-enrolled children

	Medicaid Eligible Children 2000	Rank Order	CHIP Enrollment 2000	Rank Order
Connecticut	217,468	2	10,572	3
Maine	78,283	3	60,854	1
Massachusetts	435,059	1	9,519	4
New Hampshire	**60,794**	**5**	**3,897**	**5**
Rhode Island	65,622	4	10,619	2
Vermont	60,629	6	2,485	6

Source: The Kaiser Commission on Medicaid and the Uninsured. CHIP program enrollment: December, 2000. http://www.kff.org/content/2001/4005/4005.pdf Accessed February 20, 2002.

Table 1b: Eligibility

	CHIP Federal Matching Rate FY2002 [1]	Rank Order	Medicaid Federal Matching Rate FY2002 [2]	Rank Order	CHIP upper income limit (%FPL) 2001 [3]	Rank Order	CHIP Eligibility level (0-1) Dec. 2000 [4]	Rank Order	CHIP Eligibility level (1-19) Dec. 2000 [5]	Rank Order
Connecticut	65%	4	50%	4	300%	1	185%	5	185%	3
Maine	77%	1	50%	4	200%	3	250%	2	150%	4
Massachusetts	65%	4	67%	1	200%	3	225%	3	150%	4
New Hampshire	**65%**	**4**	**50%**	**4**	**300%**	**1**	**200%**	**4**	**185%**	**3**
Rhode Island	67%	3	52%	3	250%	2	300%	1	250%	1
Vermont	74%	2	63%	2	300%	1	200%	4	225%	2

Source: 1. Federal Register, November 17, 2000 (Vol. 65, No. 223), pp. 69560-69561.

2. Ibid.

3. Center for Medicare and Medicaid Services. The State Children's Health Insurance Program Annual Enrollment Report fiscal year 2001: October 1, 2000 - September 30, 2001. http://www.hcfa.gov/init/schip01.pdf Accessed February 20, 2002.

4 The Kaiser Commission on Medicaid and the Uninsured. CHIP program enrollment: December, 2000. http://www.kff.org/content/2001/4005/4005.pdf Accessed February 20, 2002.

5.: Ibid.

DENTIST PARTICIPATION

Table 2: Dentist Participation

While these data suggest high levels of participation in Medicaid, the percentage accepting new patients and the percentage actively treating significant numbers of patients is considerably lower.

Dentist Participation

	Percent of dentists enrolled in CHIP 2001	Rank Order	Percent of dentists participating in the Medicaid dental program 2001	Rank Order
Connecticut	86%	1	88%	1
Maine	49%	4	20%	6
Massachusetts	NR	—	49%	3
New Hampshire	**76%**	**3**	**35%**	**5**
Rhode Island	NR	—	46%	4
Vermont	84%	2	84%	2

Source: Synopses of state dental public health programs, Center for Disease Control. http://www2.cdc.gov/nccdphp/doh/synopses/index.asp 2000 (unless otherwise noted) Accessed February 20, 2002.

Table 3: Dental Participation by Reimbursement

	Percentage of active dentists enrolled in Medicaid 1998	Rank Order	Percentage of active dentists receiving payment from Medicaid 1998	Rank Order	Percentage of active dentists receiving more than $10,000 from Medicaid 1998	Rank Order
Connecticut	32%	5	21%	5	4%	5
Maine	96%	1	25%	4	15%	3
Massachusetts	61%	4	56%	2	16%	2
New Hampshire	**81%**	**3**	**55%**	**3**	**15%**	**4**
Vermont	88%	2	88%	1	39%	1
Rhode Island	—	—	—	—	—	—

Source: Data collected by the National Conference of State Legislatures, Forum for State Health Policy Leadership; 1999. In States approaches to increasing Medicaid beneficiaries access to dental services, Epstein, CA November 2000.

Table 4: Medicaid Payment Rates as a Percentage of Average Regional Dental Fees for Selected Procedures, 1999

Region and state	Periodic oral examination	Dental cleaning child	Metal filling, 2 surfaces	Root canal, treatment	Extraction, single tooth	Of 15 Procedures number for which Medicaid exceeded 2/3 of average regional fees	Range of Medicaid rates as % of average regional fees
Connecticut	67%	52%	48%	46%	46%	1	45-67%
Maine	52%	72%	56%	49%	63%	2	50-75%
Massachusetts	36%	46%	47%	30%	52%	0	30-64%
New Hampshire	**73%**	**68%**	**61%**	**44%**	**46%**	**2**	**43-73%**
Rhode Island	40%	53%	43%	58%	45%	1	40-77%
Vermont	68%	63%	68%	65%	75%	5	53-85%

Source: General Accounting Office. Factors contributing to low use of dental services by low-income populations. GAO/HEHS-00-149. September, 2000.

EXPENDITURES

Table 5: Medicaid Total Expenditures

	MEDICAID Total Expenditures FY1998	Rank Order
Connecticut	$2,420,791,474	2
Maine	$747,027,618	4
Massachusetts	$4,609,360,933	1
New Hampshire	**$606,004,232**	**5**
Rhode Island	$919,353,410	3
Vermont	$351,341,290	6

Source: Health Care Financing Administration. HCFA-2082 Reports for Federal Fiscal year 1998, HCFA, CMSO, HCFA, 2082 REPORT, January 27, 2000. http://www.hcfa.gov/medicaid/msis/2082%D98.htm Accessed February 20, 2002.

Table 6: Medicaid Dental Expenditures

	MEDICAID Dental Expenditures FY1998	Rank Order
Connecticut	$7,461,733	4
Maine	$4,500,980	6
Massachusetts	$53,661,108	1
New Hampshire	**$4,589,120**	**5**
Rhode Island	$9,372,139	2
Vermont	$7,965,583	3

Source: Health Care Financing Administration. HCFA-2082 Reports for Federal Fiscal Year 1998, HCFA, CMSO, HCFA-2082 REPORT, January 27, 2000. http://www.hcfa.gov/medicaid/msis/2082%D98.htm Accessed February 20, 2002.

Table 7: New Hampshire Dental Medicaid Expenditures

Average Dental Payment per User and Percent of Enrollees Using Each Service

	New Hampshire				New England				United States			
	Children < 21		Adults		Children < 21		Adults		Children < 21		Adults	
	Per-user	% Use	Per-user	% Use	Per-user	% Use	Per-user	% Use	Per-user	% Use	Per-user	% Use
1995	$187	46.0%	$159	9.0%	$173	43.0%	$193	31.0%	$151	22.0%	$177	14.0%
1996	$195	44.7%	$153	8.5%	$159	37.7%	$184	28.8%	$161	21.0%	$186	12.8%
1997	$197	36.8%	$173	7.2%	$164	27.3%	$186	24.6%	$166	17.5%	$191	11.0%
1998	$185	37.3%	$246	12.7%	$170	23.1%	$209	17.6%	$172	13.7%	$204	7.7%

Source: AAP Medicaid State Reports based on State submissions of form 2082 to HCFA/CMS.

Table 8: Medicaid Utilization by Age 1998

	Rank Order	Medicaid recipients under age 1 year, FY 1998	Rank Order	Medicaid recipients ages 1-5 years, FY1998	Rank Order	Medicaid recipients ages 6-14 years, FY1998	Rank Order	Medicaid recipients ages 15-20 years, FY1998	Rank Order	Medicaid recipients over age 20 years FY 1998	Rank Order	Total Medicaid Recipients FY1998
Connecticut	2	11,337	2	61,527	2	91,304	2	38,712	2	178,328	2	381,208
Maine	4	4,257	4	22,420	3	36,703	3	18,827	3	86,525	3	170,456
Massachusetts	1	36,321	1	126,727	1	178,469	1	79,006	1	487,715	1	908,238
New Hampshire	**6**	**2,499**	**5**	**16,657**	**6**	**24,433**	**6**	**9,903**	**6**	**39,975**	**6**	**93,970**
Rhode Island	3	4,288	3	25,004	4	34,289	4	13,617	4	73,234	4	153,130
Vermont	5	2,410	6	15,757	5	26,550	5	12,569	5	65,047	5	123,992

Source: Health Care Financing Administration. HCFA-2082 Reports for Federal Fiscal Year 1998, HCFA, CMSO, HCFA, 2082 REPORT, January 27, 2000. http://www.hcfa.gov/medicaid/msis/2082%2D98.htm Accessed February 20, 2002.

Table 9: Actuarial Estimates of SCHIP Monthly Costs per Child Based on Market Rates

	Comprehensive Benefits Package Including Dental				Dental Benefits			
	Urban	Rank Order	Rural	Rank Order	Dental	Rank Order	% Dental	Rank Order
Connecticut	$119.36	1	$113.36	1	$25.62	1	21.5%	2
Maine	$105.96	5	$94.05	5	$19.80	5	18.7%	6
Massachusetts	$110.98	3	$94.02	6	$25.62	2	23.1%	1
New Hampshire	**$109.95**	**4**	**$99.76**	**3**	**$22.13**	**4**	**20.1%**	**4**
Rhode Island	$111.95	2	$105.93	2	$23.30	3	20.8%	3
Vermont	$102.27	6	$95.63	4	$19.80	6	19.4%	5
United States	$101.47	—	—	—	$21.35	—	21.0%	—

Source: American Academy of Pediatrics (paper): AAP summary of 1998 Total Projected Health Care Cost State & National Average Population: 0 - 21 Year Olds.

Appendix 6.
New Hampshire Demographics

Prepared by David M. Krol, M.D.

Contents

Table 1: Child Population by Race

	Black		White		Hispanic		Other		Total
Connecticut	93,061	11.3%	585,559	71.4%	115,659	14.1%	26,247	3.2%	820,526
Maine	2,450	0.8%	284,824	96.2%	3,590	1.2%	5,364	1.8%	296,228
Massachusetts	97,671	6.7%	1,128,792	77.4%	157,726	10.8%	75,053	5.1%	1,459,242
New Hampshire	**2,477**	**0.8%**	**289,164**	**94.9%**	**7,787**	**2.6%**	**5,288**	**1.7%**	**304,716**
Rhode Island	13,585	5.9%	180,075	78.4%	35,002	15.2%	1,011	0.4%	229,673
Vermont	1,020	0.7%	139,667	96.4%	1,836	1.3%	2,383	1.6%	144,906

Sources: QT-P1. Age groups and sex: 2000. Census 2000 Summary File 1 (SF1) 100 percent data. United States Census Bureau. http://factfinder.census.gov/servlet/QTTable? ts=32352659041 Accessed February 20, 2002.

2001 Kids Count Databook Online. Annie E. Casey Foundation, http://www.aecf.org/kidscount/kc2001/ Accessed February 20, 2002.

Table 2: Child Population by Age

	Under 5		5 to 9		10 to 14		15 to 18		Total
Connecticut	223,344	26.5%	244,144	29.0%	241,587	28.7%	132,613	15.8%	841,688
Maine	70,726	23.5%	83,022	27.6%	92,252	30.6%	55,238	18.3%	301,238
Massachusetts	397,268	26.5%	430,861	28.7%	431,247	28.7%	240,688	16.0%	1,500,064
New Hampshire	**75,685**	**24.4%**	**88,537**	**28.6%**	**93,255**	**30.1%**	**52,085**	**16.8%**	**309,562**
Rhode Island	63,896	25.8%	71,905	29.0%	71,370	28.8%	40,651	16.4%	247,822
Vermont	33,989	23.0%	41,101	27.9%	45,397	30.8%	27,036	18.3%	147,523

Sources: QT-P1. Age groups and sex: 2000. Census 2000 Summary File 1 (SF1) 100 percent data. United States Census Bureau. http://factfinder.census.gov/servlet/QTTable? ts=32352659041 Accessed February 20, 2002.

2001 Kids Count Databook Online. Annie E. Casey Foundation, http://www.aecf.org/kidscount/kc2001/ Accessed February 20, 2002.

Table 3: Percentage of Children in Poverty

	Poverty rate for children 18 and under 1999-2000 (%)	Rank Order
Connecticut	11	6
Maine	16	3
Massachusetts	23	1
New Hampshire	**12**	**5**
Rhode Island	16	4
Vermont	21	2
US	21	—

Sources: QT-P1. Age groups and sex: 2000. Census 2000 Summary File 1 (SF1) 100 percent data. United States Census Bureau. http://factfinder.census.gov/servlet/QTTable? ts=32352659041 Accessed February 20, 2002.

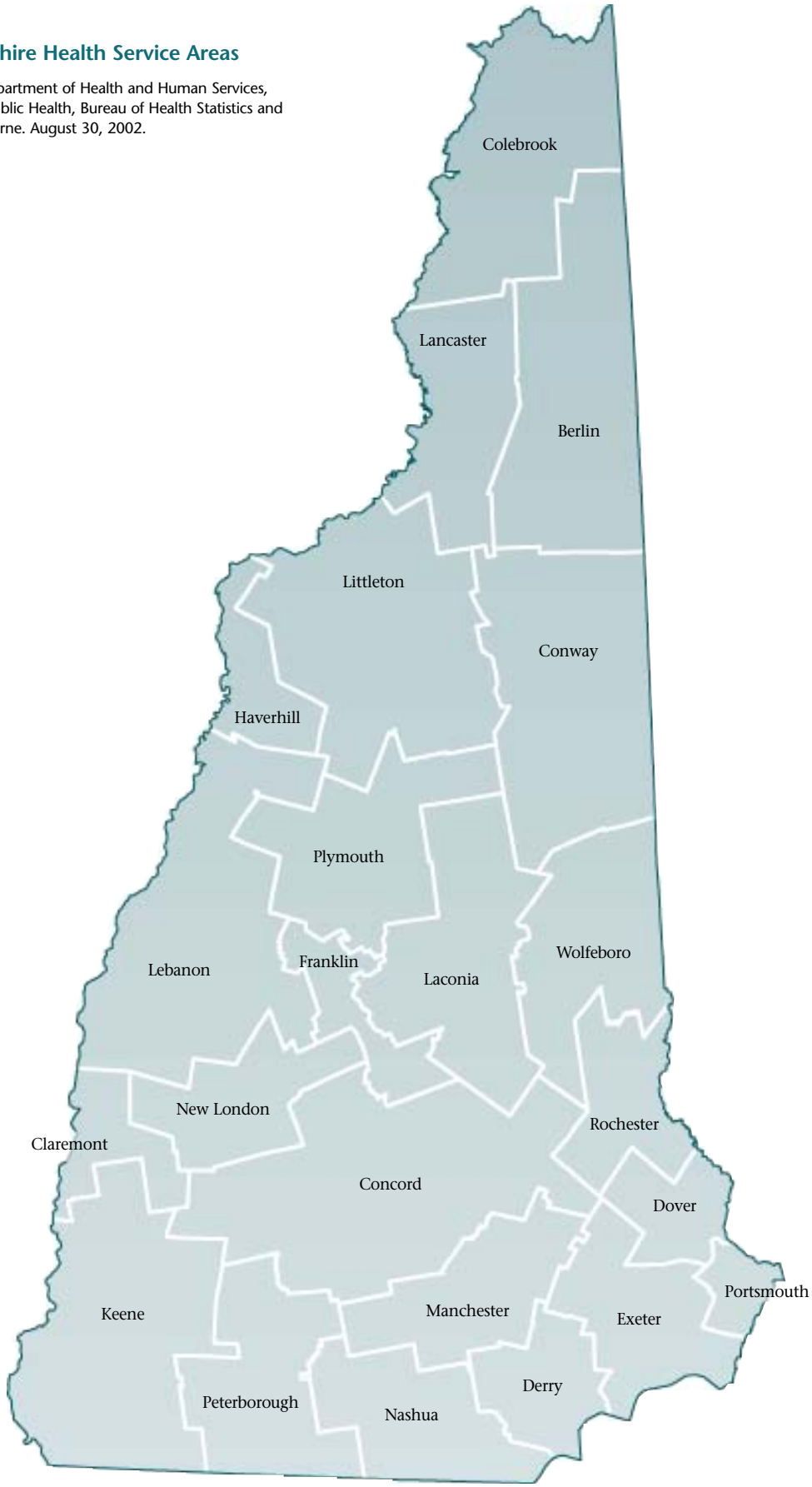
2001 Kids Count Databook Online. Annie E. Casey Foundation, http://www.aecf.org/kidscount/kc2001/ Accessed February 20, 2002.

Appendix 7.
Distribution of New Hampshire Oral Health Resources

Contents

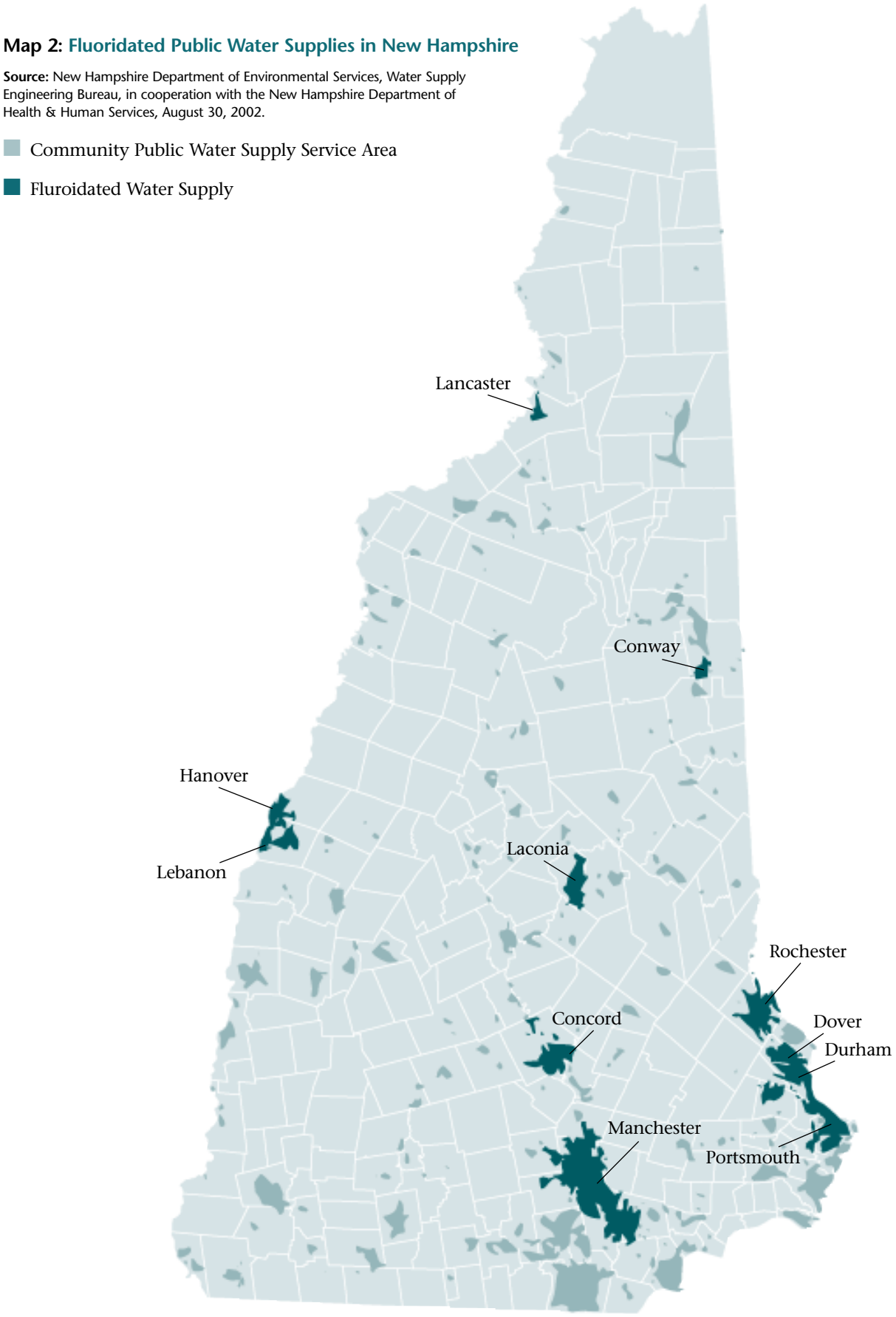
Map 1: New Hampshire Health Service Areas

Source: New Hampshire Department of Health and Human Services, Office of Community and Public Health, Bureau of Health Statistics and Data Management, Janet Horne. August 30, 2002.



Map 2: Fluoridated Public Water Supplies in New Hampshire

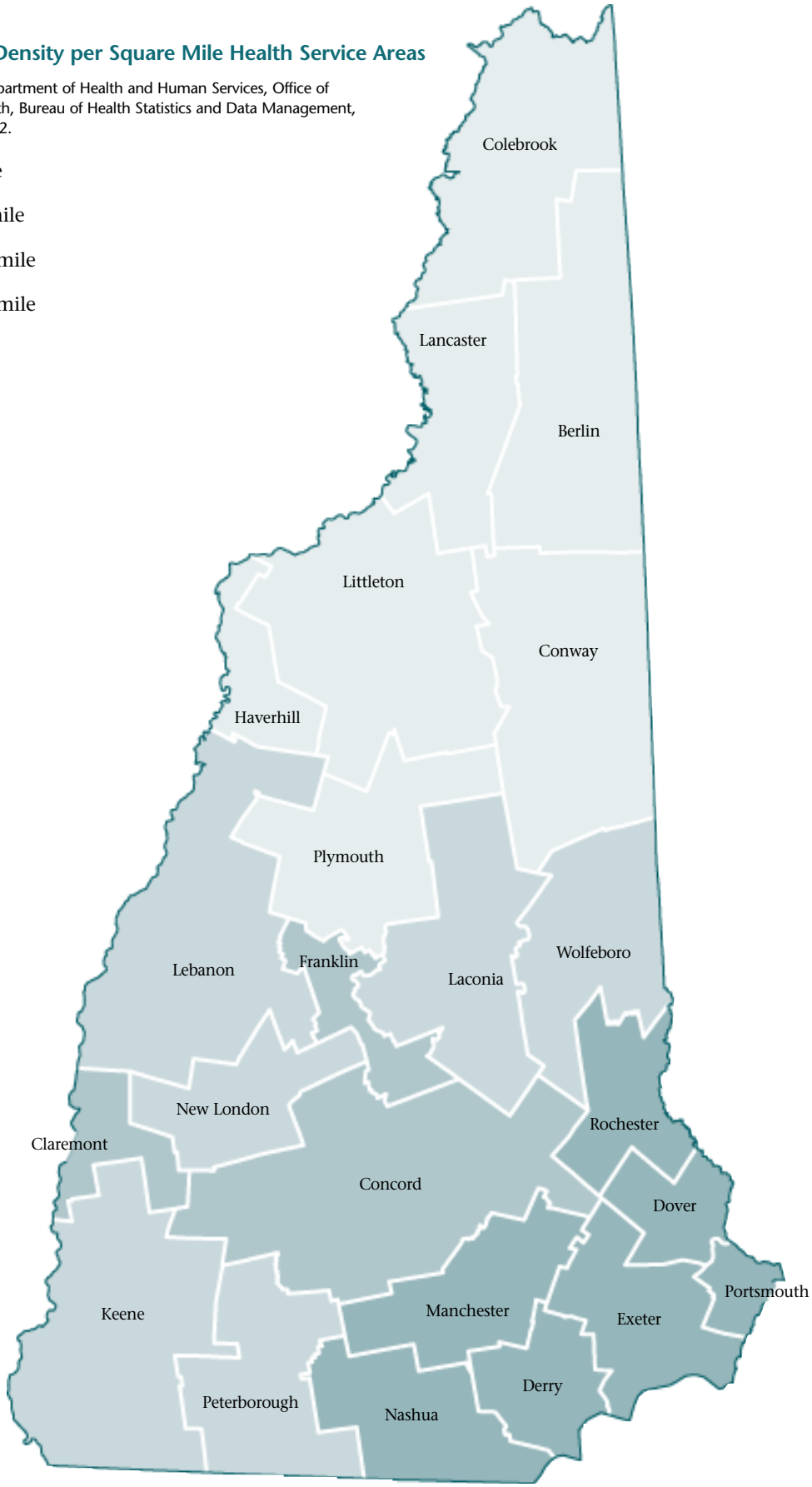
Source: New Hampshire Department of Environmental Services, Water Supply Engineering Bureau, in cooperation with the New Hampshire Department of Health & Human Services, August 30, 2002.



Map 3: Population Density per Square Mile Health Service Areas

Source: New Hampshire Department of Health and Human Services, Office of Community and Public Health, Bureau of Health Statistics and Data Management, Janet Horne. August 30, 2002.

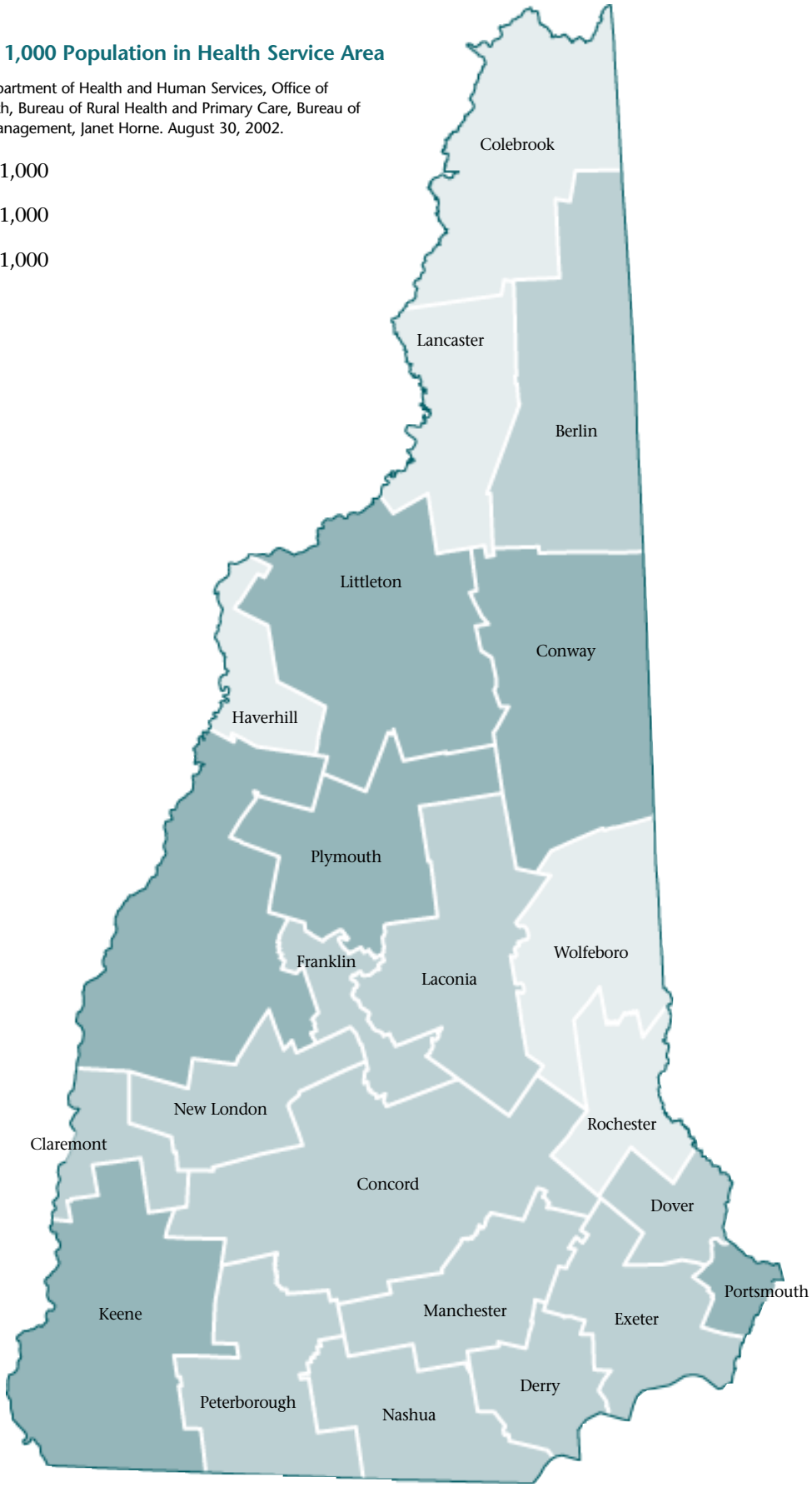
- 9.6 - 43.5/sq. mile
- 43.6 - 100.7/sq. mile
- 100.8 - 196.9/sq. mile
- 197.0 - 605.8/sq. mile



Map 4: Dentists per 1,000 Population in Health Service Area

Source: New Hampshire Department of Health and Human Services, Office of Community and Public Health, Bureau of Rural Health and Primary Care, Bureau of Health Statistics and Data Management, Janet Horne. August 30, 2002.

- 0.2 - 0.5 Dentists/1,000
- 0.6 - 0.9 Dentists/1,000
- 1.0 - 1.7 Dentists/1,000

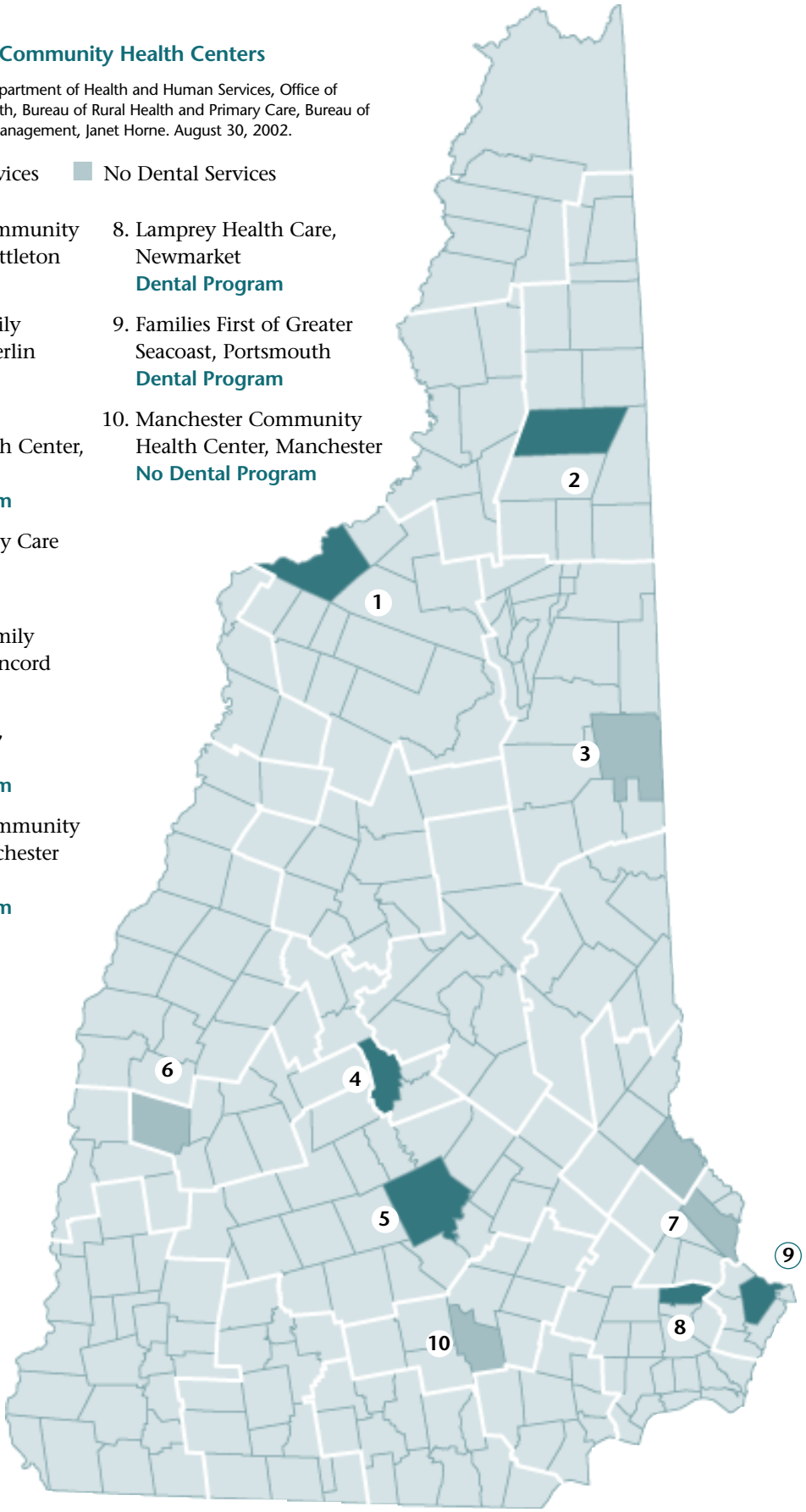


Map 5: Location of Community Health Centers

Source: New Hampshire Department of Health and Human Services, Office of Community and Public Health, Bureau of Rural Health and Primary Care, Bureau of Health Statistics and Data Management, Janet Horne. August 30, 2002.

Offers Dental Services No Dental Services

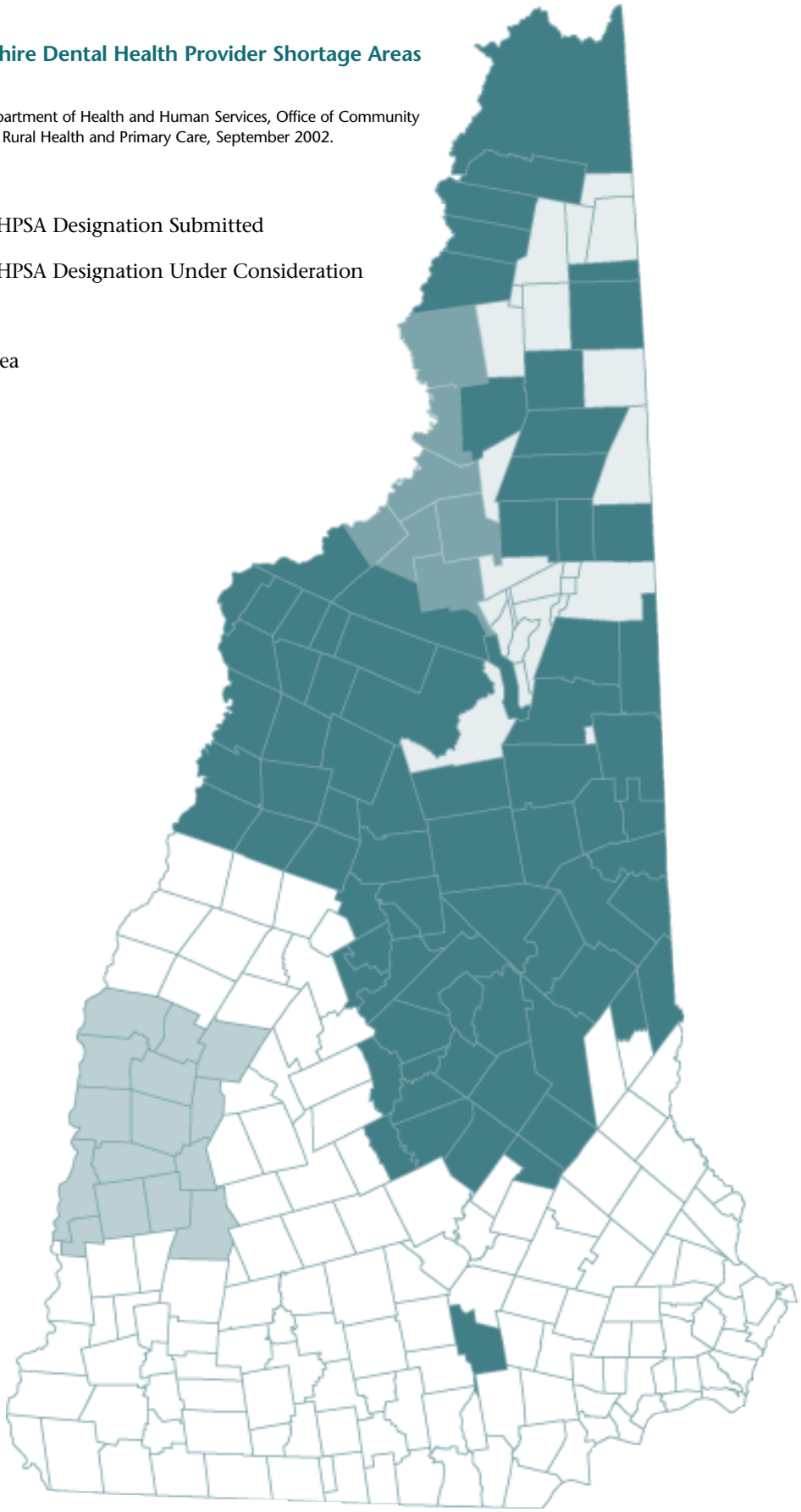
1. Ammonoosuc Community Health Services, Littleton
   Dental Program
2. Coos County Family Health Services, Berlin
   Dental Program
3. White Mountain Community Health Center, Conway
   No Dental Program
4. Health First: Family Care Center, Franklin
   Dental Program
5. Capital Region Family Health Center, Concord
   Dental Program
6. Partners in Health, Newport
   No Dental Program
7. Avis Goodwin Community Health Center. Rochester and Dover
   No Dental Program
8. Lamprey Health Care, Newmarket
   Dental Program
9. Families First of Greater Seacoast, Portsmouth
   Dental Program
10. Manchester Community Health Center, Manchester
    No Dental Program



Map 6: **New Hampshire Dental Health Provider Shortage Areas (DHPSA)**

Source: New Hampshire Department of Health and Human Services, Office of Community and Public Health, Bureau of Rural Health and Primary Care, September 2002.

- DHPSA
- Application for DHPSA Designation Submitted
- Application for DHPSA Designation Under Consideration
- Unpopulated
- Not a Shortage Area



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