A REPORT OF THE TASK FORCE ON ORAL HEALTH OF OLDER ADULTS

JUST THE F.A.C.T.S.

STRATEGIES TO IMPROVE ORAL HEALTH OF OLDER ADULTS IN CONNECTICUT



January 2008

Table of Contents

Acknowledgements	i
Executive Summary	ii
Mission of the Department of Public Health's Office of Oral Health	iv
Introduction	1
Challenges within Connecticut	4
Oral Health	
Financial	
Access to Care	7
Older Adult Characteristics	11
The FACTS: Actionable Strategies	13
Financial	
Advocacy	
Communications	
Training	
Services	
Appendices	
A. Task Force Membership List	30
B. Acronyms	
C. Oral Disease and Prevention	32
D. Identified Strategies for Preventing Oral Disease	
E. Current Oral Health Services Resources	
F. Bibliography	41

Acknowledgements

The Department of Public Health wishes to thank the following organizations for their expertise, time and effort in the development of this report.

AARP Connecticut

Connecticut Association of Agencies on Aging
Connecticut Association for Not-for-Profit Providers for the Aging (CANPFA)

Connecticut Association of Health Care Facilities

Connecticut Alzheimer's Association

Connecticut Dental Hygienists' Association, Inc.

Connecticut Department of Developmental Services

Connecticut Department of Public Health

Connecticut Department of Social Services

Connecticut Health Foundation

Connecticut Office of Long Term Care Ombudsman

Connecticut Oral Health Initiative (COHI)

Connecticut State Dental Association

University of Connecticut School of Dental Medicine

A special thanks to the Fones School of Dental Hygiene interns Doris Raposo, R.D.H Lee Paradis, R.D.H

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Executive Summary

The Connecticut Department of Public Health established a *Task Force on Oral Health for Older Adults*. The Task Force was established as a result of concerns in the community regarding the availability and accessibility of oral health services for poor and vulnerable older adults. The Task Force was charged with developing actionable strategies to improve the oral health of older adults in Connecticut.

The members of the Task Force met over a one-year period to develop actionable strategies for older adults in:

- ❖ Maintaining and improving oral health through daily oral hygiene practices, ability to access professional oral health services on a routine basis, and increasing knowledge of the importance of oral health and its value to overall health.
- ❖ Accessing affordable dental care given the barriers of living on a fixed income, cost of dental care, limited private and public dental insurance for retirees, public and private dental programs that offer affordable services and the limited number of dentists that participate in publicly financed dental care.
- The availability of dental providers knowledgeable about the special needs of older adults, particularly those with chronic diseases, complicated medical conditions, and residents of long term care institutions. Connecticut does not have a shortage of dentists but the distribution of dentists around the state is uneven and the number willing to provide services to vulnerable older adults is inadequate.
- ❖ Understanding the social context and characteristics of the older adult population. The heterogeneity of older adults does not permit a "one size fits all" solution to improved oral health.

After reviewing background materials from several sources including the Centers for Disease Control, World Health Organization, American Dental Association, American Heart Association, the American Public Health Association and Special Care Dentistry Association among others and examining the challenges to improve oral health of older adults in Connecticut, the Task Force focused on five key strategies (the FACTS):

- 1. Financing: to improve access to affordable oral health services.
- 2. <u>Advocacy</u>: to support and promote improvements in oral health.
- 3. <u>Communication</u>: to inform and educate the public, organizations, providers and policy makers about the importance of good oral health for overall health.
- 4. <u>Training</u>: to educate caregivers, and health and social service providers about the importance of oral health and their role in facilitating oral health.
- 5. Services: to assure the delivery of quality, appropriate oral health services.

THE TASK FORCE ON ORAL HEALTH OF OLDER ADULTS BELIEVES THAT ADDRESSING THE STRATEGIES THAT ARE OUTLINED IN THIS DOCUMENT WILL HAVE AN IMMEDIATE AND PROFOUND IMPACT ON IMPROVING THE ORAL HEALTH AND OVERALL HEALTH OF OLDER ADULTS IN THE STATE.

AS A FIRST STEP TO BUILDING A FOUNDATION FOR IMPROVED ORAL HEALTH OF OLDER ADULTS, THE TASK FORCE RECOMMENDS PRIORITY BE GIVEN TO THE IMPLEMENTATION OF THE FOLLOWING STRATEGIES.

- <u>FINANCING</u>: Set a target dental Medicaid reimbursement rate for adults to ensure that vulnerable senior citizens receive the oral health care they need.
- <u>ADVOCACY</u>: Promote a legislative change to set a target dental Medicaid reimbursement rate for adults.
- <u>COMMUNICATION</u>: Fund the design and implementation of an oral health education campaign to promote oral health to specific audiences such as the public, families, health and social services providers that is culturally and linguistically appropriate.
- TRAINING: Mandate annual in-service training of nursing home staff (particularly direct care staff) that includes incorporation of daily oral hygiene care appropriate to the needs of residents as part of activities of daily living (ADLs)
- **SERVICE**: Mandate that all dentures manufactured in Connecticut be labeled with a patient identifier.

MORE STRATEGIES CAN BE FOUND IN THE TASK FORCE REPORT

Department of Public Health Office of Oral Health

Mission Statement:

The Office of Oral Public Health strives to promote health and reduce disease and health disparities in Connecticut through enhanced oral health and oral healthcare access. The Office works to build the public health infrastructure for oral health within the Department of Public Health and throughout Connecticut. The goals of the Office include the implementation of effective, culturally appropriate oral health promotion and disease prevention programs that adopt, adapt and enhance best practices. The Office also works to centralize the collection of oral health data in order to better detect and monitor disease, inform policy, and evaluate programs.



Keeping Connecticut Healthy

Introduction

This report focuses on the oral health of the older adult population in Connecticut. In 1900, only 3 percent of the population in the United States, a little more than three million Americans, were 65 years of age or older. By 2000, the number of people 65 and older had grown to 35 million and represented 12.4 percent of the population. This includes healthy adults and adults who are cognitively and physically challenged and/or medically compromised. The U.S. population is projected to increase by 42 percent over the next 50 years and those over 65 by 126 percent. Currently, in Connecticut, the elderly population represents approximately 14 percent of the population.

The majority of the older adult population resides within private residences. It is estimated that approximately 5 percent of the older adult population reside in an institutionalized setting such as a long-term care facility and another 5 percent of may be receiving assistance in the community through formal or informal caregivers.

According the *Surgeon General Report on Oral Health in America*, the burden of oral disease in older adults is substantial. Edentulism (total tooth loss), periodontal (gum) disease, oral cancer and dental decay are significant oral health issues for this population and particularly, for those elderly in poor health or that live in nursing homes. Older adults are often at risk of limited access to oral health care because of transportation, economic factors, complex medical illness, social isolation, and other individual and social factors. Those institutionalized, often have difficulty accessing treatment services within nursing homes or in the community. Despite federal legislation enacted in 1987 mandating that all nursing homes provide access to dental care, only 80 percent of nursing homes nationally reported having dental services available.

In Connecticut, dental care for older adults is available in private dental practices, in primary care settings such as community health centers, community adult dental centers and hospital clinics. To a limited extent, dental facilities are also available within nursing homes. However, many older adults are not aware of where or how to access dental services in their community. Other obstacles to oral healthcare access include limited knowledge about dental insurance coverage and out-of-pocket costs, limited public transportation options, reduced retirement income and knowledge about the importance of oral health to overall health. Older adults would benefit from dental facilities that are:

- within convenient locations in the communities
- near medical and other health and human services
- offer sliding fees or other reduced costs of services
- within integrated health systems that emphasize the importance of dental care and overall health

In November 2006, the Connecticut Department of Public Health established the *Task Force on Oral Health for Older Adults*. The Task Force was established as a result of concerns in the community regarding the availability and accessibility of oral health services for poor and vulnerable older adults. The Task Force was charged with developing actionable strategies to improve the oral health of older adults in Connecticut. Membership of the task force included: Agency on Aging, AARP Connecticut, Connecticut Association for Not-for-Profit Providers for the Aging (CANPFA), Connecticut Association of Health Care Facilities, Connecticut Alzheimer's Association, Connecticut Dental Hygienists' Association, Inc., Connecticut Department of Developmental Services, Connecticut Department of Public Health, Connecticut Department of Social Services, Connecticut Health Foundation, Connecticut Oral Health Initiative (COHI), Connecticut State Dental Association, the Office of Long Term Care Ombudsman, and the University of Connecticut School of Dental Medicine.

The members met over a one-year period to develop actionable strategies to address many of the challenges in making oral health services more readily available to older adults in Connecticut. After reviewing background materials from several sources including the Centers for Disease Control, World Health Organization, American Dental Association, American Heart Association, the American Public Health Association and Special Care Dentistry Association among others, the Task Force developed five focus areas to improve oral health for older adults in Connecticut: Financing, Advocacy, Communication, Training and Services. These actionable strategies or *FACTS* are the consensus opinions and recommendations of the Task Force.



Oral health means being free of chronic oral-facial pain, oral and pharyngeal cancers, oral soft tissue lesions, birth defects such as cleft lip and palate and scores of other diseases and disorders that affect oral, dental and craniofacial tissues, collectively known as the craniofacial complex. Oral health is essential to the general health and well being of all.

-- U.S. Surgeon General's Report on Oral Health in America



Challenges to Improve Oral Health of Older Adults in Connecticut

ORAL HEALTH CHALLENGES

To have and maintain oral health, there are basics tenets that must be in place: physical ability to maintain oral health through daily oral hygiene practices, ability to access professional oral health services on a routine basis, knowledge of the importance of oral health and its value to overall health. For older adults, one or more of these tenets may be absent. As a result, the prevalence and severity of oral diseases and conditions in older adults are a significant personal and public health concern.

Dental caries and periodontal disease are the most prevalent oral diseases that affect older adults. Dental caries is a chronic, progressive, cumulative, infectious disease process that can lead to tooth decay (cavities), nerve destruction in the tooth, tooth loss, abscess and systemic infection. Periodontal (gum) disease, the progressive destruction of supporting structures of the teeth, is caused by a chronic bacterial infection of the gums and has been linked to such chronic diseases as diabetes, heart disease, arthritis and osteoporosis, all commonly found in older adults.

One third of older adults have dental caries and 40 percent have periodontal disease. Twenty-three (23) percent have severe periodontal disease that can compromise oral function and overall health. Of the 31,000 people that are diagnosed with oral cancer each year, the majority are older adults. The five-year survival rate for oral cancer is poor and range from 34 percent in non-white populations to 56 percent in white populations. Further, neurological diseases associated with age such as stroke, Alzheimer's disease and Parkinson's disease can compromise one's ability to practice good oral hygiene and limit oral motor and sensory functions. There are hundreds of commonly used medications that have an adverse effect on oral health. Most older adults take both prescription and over-the-counter medications. Five (5) percent of older adults residing in long-term care facilities take 8 or more different medications per day. The challenge of maintaining oral health for nursing home residents holds additional implications. Considerable attention has been given to the association between aspiration pneumonia and oral disease in this population. Oral disease factors that may

contribute to the increased risk of respiratory infections include lack of oral hygiene and lack of dental care services.

In Connecticut, older adults most at risk for these diseases and conditions are the low income, dentally uninsured or underinsured, those who are ethnic and racial minorities, and those with compromised health, are homebound or reside in long-term care facilities.

Unfortunately, the extent of oral disease in older adults in Connecticut is poorly defined. The only indication of oral health status of older adults in Connecticut comes from an annual telephone survey of adults over the age of 18 years living in the community. This survey, Behavioral Risk Factor Surveillance System (BRFSS) has few questions relating to oral health of older adults: annual dental visits, tooth loss and dental insurance. In 2004, the survey reported that Connecticut ranked first in the nation for adults over 65 keeping their natural teeth. Twelve (12) percent reported that they had all of their natural teeth removed in comparison to the national average of 21 percent. In Connecticut, the likelihood of having all of your teeth removed is associated with both education and income. Those with higher income and higher education are less likely to have all of their teeth removed. While this report is encouraging, it does not provide any indication of the prevalence of the two most common oral diseases, dental decay and periodontal disease.

For those homebound or institutionalized, only anecdotal evidence is available. Oral diseases and conditions is these populations often go undocumented with symptoms of poor nutrition, lethargy, and chronic disease exacerbation attributed to causes other than oral disease.



Financial Challenges

The majority of those aged 65 and older are no longer employed. Most are on a fixed income. Living on a fixed income can present challenges to maintaining proper health. With people now living longer than ever before, a fixed income can gradually sink a person into poverty. The cost of health care rises each year, and with a fixed income, many older adults rely on insurance coverage to afford health care. Most elderly dental expenses are paid out-of-pocket. Only 22 percent of older adults nationally have dental insurance. This makes it increasingly difficult to pay for dental services that may not be covered through private or public (Medicaid) insurance.

Medical	Medical Services* Dental Services*		Services*
Private Insurance	50%	Private Insurance	50%
Out-Of-Pocket	10%	Out-Of-Pocket	44%
Medicare	20%	Medicare	<1%
Medicaid	4%	Medicaid	3%
Other	15%	Other	2%

^{*}For all ages, comparative financing for medical and dental services nationally.

<u>Medicare</u> is the primary source of health care reimbursement for those who are citizens or permanent residents of the United States and at least 65 years old regardless of income. Currently, Medicare payments for dental care are severely restricted and for all intent does not pay for most needed dental care.

<u>Medicaid</u> is the primary source of health care reimbursement for low-income families, elderly, and disabled in the United States. Medicaid eligibility is determined based on state and national criteria. There were approximately 40,000 older adults aged 65 and older who were eligible for Medicaid coverage in Connecticut as of July 2007.

In Connecticut, the likelihood of having visited a dental clinic or private dentist within the past year is associated with both income and education. Those with higher education and higher income are more likely to have visited a dental clinic or dentist within the past year. Overall, 10 percent of all Connecticut adults reported that cost prevented them from visiting the dentist according to the BRFSS. However, the elderly, institutionalized, those with complex medical conditions and

the homebound, have greater financial barriers to accessing routine dental care and preventative dental services.

Availability of Dental Care Challenges

According to data from the 2000 U.S. Census, the number of *professionally active* dentists in the state of Connecticut for that year was 2,591 while there were 3,260 dental hygienists, and 3,100 dental assistants. This was equal to 66.3 dentists per 100,000, just above the national rate of 63.6. Connecticut ranked 17th in the nation in dentists to population ratio. The per capita ratios of dental hygienists and dental assistants were both higher than their respective national rates.

The year 2000 profile of dentist to population by County is shown in the table below. Connecticut does not have a shortage of dentists. However, the distribution of dentists around the state is uneven and the number of dentists that participate in publicly financed dental care is limited.

Connecticut	Population	Dentists	Ratio*
Statewide	3,405,565	2,249	1,514
County	Population	Dentists	Ratio*
Fairfield	882,567	691	1,277
Hartford	857,183	667	1,285
Litchfield	182,193	115	1,584
Middlesex	155,071	89	1,742
New Haven	824,008	439	1,877
New London	259,088	113	2,293
Tolland	136,364	95	1,435
Windham	109,091	40	2,728

⁺Profile of CT Dentists, 2000 US Census by County

As of 2005, there were 2,679 dentists licensed in the state of Connecticut. Approximately fifteen percent (15%) of dentists in 2005 within the state of Connecticut accepted Medicaid, and 595 had at least one paid claim during that period. While all counties in the state have a dentist who accepts Medicaid, poor reimbursement, administrative red tape, and missed appointments by Medicaid patients are disincentives for dental practitioners to participate in Medicaid. Dentistry, unlike medicine, has high overhead costs of equipment to set up a practice, and the majority of dental practices are independent businesses.

^{*}Dentist to population ratio = Population / # Dentists

Physicians use expensive equipment as well, but it is located at hospitals or diagnostic centers and they, unlike dentists, rarely have to purchase it. Dentists also must hire staff, lease space, provide parking, and file all required forms and payments. Reimbursements that are lower than the cost of delivering care make it difficult for dentists to pay for needed equipment and maintain a practice. Dentists also are much less likely than physicians to participate in the managed care system, which makes it difficult for states to organize their participation or negotiate fees. Dentists in many states also have complained about the administrative complexity, prior authorization requirements needed for providing even routine services and slow payment associated with public programs.



Change in Dentists' Participation in Treating Medicaid Patients 1998 and 2000

			Percent	_	atients 1998	
State		Number of Dentists Who Have Received Payment		Number of Dentist Who		Percent
					ived Payment	Change
		e Las Year			han \$10,000	
A.T.	1998	2000	120/	1998	2000	1.50/
AL	343	302	-12%	132	152	15%
AK	396	301	-24%	119	159	34%
AR	366	370	1%	190	171	-10%
AZ	~1000	NA 12.660	NA 250/	NA 4.722	NA 7. caa	NA 100/
CA	9,373	12,669	35%	4,722	5,623	19%
CO	409	459	12%	75	124	65%
CT	511	445	-13%	96	100	24000
DE	1	61	6000%	1	35 ND	3400%
DC	2,040	NR	NA	26	NR	NA 0.20/
FL	1,466	1,372	-6%	875	873	-0.2%
GA	902	840	-7%	520	494	-5%
HI	349	NR 402	NA	3	NR	NA
ID	579	402	-31%	219	217	-1%
IL	2,700	NA 1.122	NA 240/	~100	NA 520	NA 1600/
IN	910	1,132	24%	200	520	160%
IA VC	1,393	1,219	-12%	NA 145	429	NA 210/
KS	410	408	-0.5%	145	176	21%
KY	1,273	684	-46%	667	389	-42%
LA	864	714	-17%	442	359	-19%
ME	327	317	-3%	96	123	28%
MD	NA	NA	NA	NA	NA	NA
MA	1,116	930	-17%	662	NA	NA
MI	2,100	1,900	-10%	865	686	-21%
MN	2,203	1,930	-12%	660	333	-50%
MS	464	450	-3%	264	307	16%
MO	748	581	-22%	298	225	-24%
MT	408	300	-26%	112	118	5%
NE	798	964	21%	231	387	68%
NV	216	171	-21%	65	82	26%
NH	256	308	-13%	100	145	45%
NJ	1,089	NR	NA	249	NR	NA
NM	236	215	-9%	92	134	46%
NY	8,640	2,918	-66%	1,410	1,185	-16%
NC	1,696	3,351	98%	526	1,115	112%
ND	288	288	0%	107	68	-36%
OH	1,835	1,433	-22%	504	NA	NA
OK	287	263	-8%	86	140	63%
OR	1,417	1,497	6%	NA	847	NA
PA	NR	1,424	NA	NR	439	NA
RI	NR	338	NA	NR	122	NR
SC	635	718	13%	309	434	40%
SD	277	315	14%	77	93	21%
TN	NA	NA	NA	NA	NA	NA
TX	1,923	1,972	3%	1,132	1,532	35%
UT	750	702	-6%	156	177	13%
VT	297	312	5%	130	234	80%
VA	659	759	15%	193	313	62%
WA	2,150	1,692	-21%	772	713	-8%
WV	618	573	-7%	330	299	-9%
WI	1,639	1,158	-29%	329	238	-28%
WY	150	169	13%	40	52	30%

Key: ~ Estimated; NA- Not Available; NR- No Response Source: 1998 Survey of State Medicaid Departments by the Forum for State Health Policy Leadership, National Conference of State Legislatures; 2000 Survey of State SCHIP and Medicaid Departments by the Forum for State Health Policy Leadership, National Conference of State Legislatures.

It is to be noted that prior to this 1998 Survey of State Medicaid Departments by the Forum for State Health Policy Leadership, a significant dental services reimbursement rate change was last seen in 1994 for dentists that willingly participated in the Medicaid program.

The availability of dental providers that accept Medicaid severely limits access to oral health care for low-income older adults. Those that reside in nursing homes and who are homebound are the more vulnerable elderly. Compromised medical conditions and scarcity of dental providers who are skilled in providing dental services for this population is only further compounded by the small number who will accept Medicaid and offer dental care in these settings.

To address availability of dental services, national and state initiatives have begun to appear. The American Dental Hygienists Association (ADHA) strongly supports expanding the use of dental hygienists in the provision of dental services. The most commonly cited benefit of expanding hygienists' role is that they can provide high-quality preventive services to underserved patients. Although dental hygiene services provided to patients without a dentist on site is sufficient in many cases, it is ideal for dentists to provide treatment on site as well.

In Connecticut, hygienists are able to go to schools, nursing homes, and other public health facilities to provide preventive services to the most vulnerable and underserved populations. When hygienists are utilized to the full scope of preventive practice, they can free time for restorative procedures by dentists who see publicly funded patients. The shortage of dentists who care for the underserved populations makes this an attractive prospect for some states

Connecticut enacted legislation in 1999 to allow dental hygienists to practice in a public health facility (including nursing homes) without the general supervision of a dentist. In order to practice independently in those settings, a dental hygienist must be licensed and have two years of experience. Through Public Act 99-197, dental hygienists are permitted to perform the following procedures: complete prophylaxis (the removal of calculus deposits, accretions and stains); the application of sealants and topical solutions; dental hygiene examinations and the charting of oral conditions; and dental hygiene assessment, treatment planning and evaluation.

The effectiveness of this legislation in increasing availability of oral health services to older adults has not yet been studied.

Other providers of dental services, such as denturists, have expressed an interest in directly providing dental care to the elderly. Denturists are licensed individuals that make, fit, and repair removal dentures. There are 6 states (Washington, Arizona, Maine, Oregon, Montana and Idaho) that license denturists. A formal course of study is required for licensure is these states. Some denturists work as part of the dental team in a private dental office and some practice independently.

Characteristics of Older Adult - Challenges

The elderly population, those over age 65, is increasing nationally and in Connecticut. The following are some characteristics of older adults that can affect oral health.

- Those over 65 years of age are living longer. The fastest growing older adult group is those over 75 years. Dental health insurance coverage for retirees is important to maintain overall health in later years.
- An estimated 5 percent live in nursing homes and another 5 percent may be homebound. Availability of dental services in these setting becomes increasing important.
- The older population is becoming more ethnically diverse with a wider variety of needs and expectations. Culturally competent dental providers are essential.
- Older people are not homogeneous and differ by age cohort. Those who are the "young old" (65-74) differ from the "old-old" (85+) in that they have experienced different health and social experiences that affect their attitudes and beliefs about health care and oral health.
- Older adults are becoming more economically powerful and therefore have increased expectations and others are affected by limited incomes and insurance coverage for oral health.
- As they age, older people are more likely to live alone, particularly women, may be socially isolated and not aware of the need for routine assessment of oral health. Care coordination becomes increasingly important in the health care management for overall health.

- Some are unable to manage walking without assistance, have failing eyesight and other physical limitations so that caregivers and/or transportation options become important.
- Many are increasingly retaining their teeth into old age and therefore periodontal disease and dental decay remain important health concerns that can affect overall health.





ACTIONABLE STRATEGIES

In reviewing the challenges to improve oral health of older adults in Connecticut, the Task Force focused on five key strategies (the FACTS):

- 1 Financing: to improve access to affordable oral health services.
- 2 Advocacy: to support and promote improvements in oral health.
- 3 <u>Communication</u>: to inform and educate the public, organizations, providers and policy makers about the importance of good oral health for overall health.
- 4 <u>Training</u>: to educate caregivers, and health and social service providers about the importance of oral health and their role in facilitating oral health.
- 5 <u>Services</u>: to assure the delivery of quality, appropriate oral health services.

The Task Force identified specific strategies under each of the above focus areas and further delineated activities that are attainable in the short term, at minimal cost, and would result in significant outcomes.



STRATEGY # 1: FINANCING

TO IMPROVE ACCESS TO AFFORDABLE ORAL HEALTH SERVICES FOR OLDER ADULTS

- 1. Increase availability of funds through lobbying, fund raising and grant-writing to expand oral health awareness and access to oral health care services across the State for older adults.
- 2. Seek support from the dental supply industry, local community organizations (i.e. Lion's Club, Free Masons, Rotary Clubs) and foundations for financing opportunities for oral health.
- 3. Develop an oral health pilot in one region of the State to assist the uninsured older adult to pay for dental care through existing funds from the Departments of Social Services and Public Health.
- 4. Explore expansion of support for oral health prevention and treatment services for older adults through the "Older American's Act".
- 5. Promote increased funding to the University of Connecticut Health Center to deliver more dental services to older adults.
- 6. Provide incentives to private dental practitioners and community health centers to provide dental services to older adults, particularly nursing home patients that do not have access to a dentist.
- 7. Encourage Area Agencies on Aging to use their existing resources to promote access to community dental services for their older adult constituencies, particularly the vulnerable elderly.

- 8. Simplify any prior authorizations and credentialing process that may be needed for Medicaid.
- 9. Clarify and publicize Medicaid and Medicare program limits on dental reimbursement for providers and the public.
- 10. Add coverage for a number of dental procedures that previously have not been covered by private and public insurance.
- 11. Promote a dental benefit package for retirees (i.e. promote combining medical and dental health benefits under Medicare).
- 12. Set a target dental Medicaid reimbursement rate that will encourage more dentists to participate.
- 13. Cover transportation costs to and from dental appointments for older adults through private insurers and ensure a simplified process to access this service.

Attainable Activities: Financing

- The Department of Social Services to clarify, simplify, publicize and disseminate to patients and providers user-friendly information about:
 - o Medicaid and Medicare program limits for dental care;
 - The free transportation benefit for dental appointments to enrolled providers;
 - o The appropriate use of the dental reimbursement code, "D9920" for patient management;
 - o Any dental prior authorization process that may be needed for Medicaid.
- The Department of Social Services to simplify the Medicaid dental credentialing and enrollment process for dental professionals through providing easy on-line web access to necessary forms and instructions for providers.
- Stakeholders for older adults to explore transportation options (i.e. regional/town "Dial-a-ride") to and from dental appointments for older adults that have private insurance.

- The Department of Social Services to explore a "Pay for Performance" pilot as an incentive for dental practices that serve older adults (particularly vulnerable older adults).
- The Departments of Public Health and Social Services to develop a memorandum of understanding (MOU) to jointly fund a pilot program for uninsured older adults in one region of the State.
- Community organizations and stakeholders seeking funding for oral health initiatives to consider soliciting Lion's Clubs, Rotary Clubs and Free Mason organizations for support as well as dental product organizations (i.e. Oral B, Glaxo-Smith-Kline).

Attainable Outcomes: Financing

- ❖ A pilot program will be established to provide uninsured older adults access to affordable dental services and an evaluation of the pilot will be used to leverage continued funding.
- ❖ The public and providers will better understand dental coverage options under Medicaid to facilitate access to affordable dental services.
- ❖ Older adults will be able to more effectively seek dental care when they understand costs covered under the Medicaid dental program for needed dental services.
- * Medicaid dental credentialing and enrollment process, as a barrier for dental providers accepting Medicaid reimbursement, will be eliminated.
- ❖ Availability of private insurance supported "Dial-a-ride" transportation services to and from dental appointments will be identified, documented and shared through local/regional municipal offices.
- Quality dental care to older adults will be offered and rewarded through a "pay for performance pilot".



STRATEGY # 2: ADVOCACY

TO SUPPORT AND PROMOTE IMPROVEMENTS IN ORAL HEALTH FOR OLDER ADULTS

- 1. Continually advocate for oral health services for older adults in any health legislation, particularly universal health care legislation.
- 2. Advocate for increased funding to support oral health services of older adults across Connecticut.
- 3. Advocate for support of targeted case management and care coordination for dental services to improve older adults' rate of keeping appointments.
- 4. Inform the community and stakeholders on how they can advocate for oral health to their legislators and other local decision makers.
- 5. Promote a legislative change to set a target dental Medicaid reimbursement rate that will result in more dental providers accepting public insurance.
- 6. Advocate for public and private dental insurers to provide a standard oral health package for older adults to include the following covered services (1) yearly oral cancer screenings, (2) yearly dental examinations, prophylaxis and x-rays, (3) coverage for periodontal care and routine restorative care and extractions and (4) dental appliances (i.e. dentures) with a clear and simple appliance replacement policy of no more than three years.
- 7. Educate older adults on how they can advocate for better oral health for themselves through senior citizen centers, churches and social groups.
- 8. Educate caregivers on how they can advocate for oral health for older adults.

- 9. Develop basic informational packets and share with stakeholders to facilitate advocacy for oral health for older adults.
- 10. Recruit health and social services students and providers to advocate for oral health for older adults.

Attainable Actions: Advocacy

- State agencies and advocacy organizations (i.e. CT Coalition on Aging, CT Commission of Aging, CT Council of Senior Citizens, Inc., Senior Volunteer Assistance Program, Area Agencies on Aging, AARP, COHI, CANFPA, etc.) make available information on state legislators (name, contact, jurisdiction, interest) to older adults, families and caregivers through websites, brochures, flyers and other media available to them.
- State agencies and advocacy organizations that have older adults as constituents make available information (talking points) on important oral health concerns (i.e. Medicaid rates, private/public, dental health coverage for retirees) to older adults, families, and caregivers through websites, senior newsletters, churches, social and focus groups.
- The public, oral health providers and advocacy groups attend AARP forums and other events to promote oral health issues and concerns (i.e. combining medical and dental health benefits under Medicare) to legislators and congressional leaders.
- Appropriate state agencies (i.e. Departments of Insurance and Social Services) with the support of advocacy organizations and legislators advocate for mandated private and public coverage of case management and care coordination services for dental care to improve older adults' rate of making and keeping appointments.
- COHI to seek funding to develop and implement a plan to disseminate oral health information to the public so they will be better prepared to advocate for themselves.
- Advocates for older adults and oral health identify legislative dental champions and "non-traditional legislative committees" (i.e. Insurance

- The CT State Dental Association (CSDA), CT Dental Hygienists' Association (CDHA), School of Dental Medicine (SDM) and other stakeholders conduct a poster board oral health awareness day in the legislative concourse at the Legislative Office Building.
- Office of Long Term Care (LTC) Ombudsman, Connecticut Association for Not-for-Profit Providers for the Aging (CANPFA) and other key stakeholders to actively advocate for voluntary policy and procedural changes to improve oral health in LTC settings (i.e. basic standard of oral health care, oral hygiene as part of ADLs).

Attainable Outcomes: Advocacy

- ❖ Older adults and their families will know who and how to access policy makers to promote oral health improvements for older adults.
- ❖ Older adults and their families will know what oral health issues to promote when speaking with policy makers on oral health improvements for older adults.
- * Resources will be available to inform the public about oral health.
- * Key policy makers will be educated on an ongoing basis about the importance of oral health policies to improve oral health of older adults.
- Legislators, their aides, and the public will be informed of the importance of oral health for older adults overall health and wellness.



STRATEGY #3: COMMUNICATION

TO INFORM AND EDUCATE THE PUBLIC, ORGANIZATIONS, PROVIDERS AND POLICY MAKERS ABOUT THE IMPORTANCE OF GOOD ORAL HEALTH FOR OVERALL HEALTH

- 1. Formalize collaborations among state agencies to advance oral health of older adults. State agencies should include at least the Departments of Public Health, Social Services, Mental Health and Addiction Services, Developmental Services, Long Term Care Ombudsman, and the University of Connecticut Health Center.
- 2. Design and implement an oral health education campaign to promote oral health to specific audiences such as the public, families, health and social services providers, policy makers that is culturally and linguistically appropriate.
- 3. Develop a "universal message" regarding the importance of oral health for older adults targeting providers, the public, and policy makers.
 - a. Use the different media (particularly TV) to help providers, the public, and policy makers understand the importance and benefits of good oral health for the older adult population
 - b. Utilize cable TV and radio talk shows to raise awareness of oral health for older adults and simple prevention and disease control messages, including the use of fluoride, oral cancer screening, and routine oral hygiene
 - c. Use marketing strategies to older adults that have been proven successful
 - d. Assure that the message is culturally and linguistically appropriate

- 4. Promote oral health messages to older adults through state and local agencies such as AAA, AoA, and AARP to make older adults smart consumers of oral health services. The messages should include:
 - a. The importance of routine dental care and how to access and afford such care
 - b. Information on care for teeth, gums, dentures, and routine oral cancer screening
 - c. The connection between common chronic diseases found in older adults and poor oral health
 - d. Cost savings benefits of good oral health
- 5. Develop an inventory of oral health services in the state that will inform older adult residents of the type of services and providers available, and affordability and accessibility of services.
- 6. Develop brochures and table displays that are easy to read and understand for distribution and use at seniors centers, health fairs and physician and social services offices.
- 7. Develop and maintain working relationship with local senior centers and town sponsored adults programs.
- 8. Provide families with relatives in nursing homes and homecare programs with oral health information so they can act on behalf of their relatives.
- 9. Promote increased communication between medical and dental providers to improve the health management of older adults.

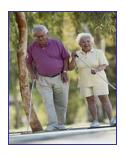
Attainable Actions: Communication

- The Departments of Public Health and Social Services to enter into a *Memorandum of Agreement* on Healthy Aging Initiatives that support coordinated efforts to improve oral health for older adults.
- The Department of Public Health to develop a directory of oral health services including: services available, payment plans, hours of operation, availability of transportation services, and update, publish and disseminate the directory regularly to senior centers, on websites, to providers, in newsletters and other appropriate media vehicles.

- Local and state agencies to partner with the dental products industry for sponsorship of oral health informational messages.
- Local and statewide agencies that produce newsletters, brochures and other literature that informs and updates their constituencies to periodically include oral health messages.
- Task Force members and their constituencies to organize an oral health forum at the Legislative Office Building (LOB) to present "Just the *FACTS*" about oral health of older adults.

Attainable Outcomes: Communication

- ❖ Older adults in the community will have access to oral health information and where and how to access dental services.
- ❖ The public, caregivers and family of older adults will be aware of the importance of oral health to overall health of older adults and their role in supporting oral health..
- * Reduction in fragmentation of healthy aging efforts among state agencies.
- ❖ Policy and decision makers will be aware of the "FACTS" concerning oral health for older adults.



STRATEGY # 4: TRAINING

EDUCATE CAREGIVERS, AND HEALTH AND SOCIAL SERVICE PROVIDERS ABOUT THE IMPORTANCE OF ORAL HEALTH AND THEIR ROLE IN FACILITATING ORAL HEALTH IN OLDER ADULTS

- 1. Educate caregivers in families, assisted living, supportive housing and nursing homes on how they can effectively assess older adults for oral health problems and provide or refer for care.
- 2. Mandate continuing education on oral health for older adults as a requirement for licensure for physicians and nurses.
- 3. Distribute scientific (evidence-based) information to physicians via hospital grand rounds, seminars, physician mailboxes, and e-mail to facilitate more effective patient care and integration of oral health with overall health.
- 4. Provide oral health training and information to local dental component societies and community dentists on the specific needs of older adults particularly frail adults.
- 5. Educate health and social service providers of the importance of letting their clients know about the significance of routine dental visits and oral hygiene practices to achieve good overall health.
- 6. Enhance oral health competencies for certified nursing assistants (CNAs) as part of their certification.
- 7. Require a new-employee training program for all nursing home staff to include oral health training.

- 8. Mandate annual in-service training of nursing home staff (particularly direct care staff) that includes incorporation of daily oral hygiene care appropriate to the needs of residents as part of activities of daily living (ADLs).
 - a. Require a new-employee training program for all direct care nursing home staff to include ADL oral health training.
 - b. Mandate oral health training of nursing staff that provide direct patient care as part of nursing home certification.
- 9. Train providers that develop care plans to recognize and assess oral disease and concerns of older adults in order to develop appropriate care plans for oral health.

Attainable Actions: Training

- The Department of Public Health to develop, disseminate and demonstrate a curriculum that can be used by health service organizations to train providers in addressing the oral diseases and conditions of older adults according to their level of skill.
- The Department of Public Health to monitor, record and report oral health related incidents in nursing homes to inform appropriate policies and protocol changes.
- The University of Connecticut, School of Dental Medicine to make presentations at grand rounds and local professional associations on oral health competencies and the role of providers in improving oral health of older adults.
- The CANPFA to promote policies for their members in support of voluntarily incorporating oral health training for nursing home staff.
- Forums sponsored by the Office of the Long-Term Care (LTC) Ombudsman to include oral health educational opportunities for caregivers.
- COHI to advocate for mandatory continuing education in oral health for medical providers.

• CSDA to provide training (including on-line training) on an annual basis on the care and management of vulnerable older adults.

Attainable Outcomes: Training

- ❖ More providers are knowledgeable about oral health and their role in how they can to achieve overall health of patients through oral disease prevention and treatment.
- ❖ More providers are available and accessible to provide oral health care.
- Nursing home staffs are more skilled in recognizing and responding to oral health concerns of patients in their care.
- Nursing home administrators are committed (by mandate or voluntarily) to improve oral health of residents.
- ❖ Older adults in nursing homes have improved oral health and overall health through mandated inclusion of oral hygiene care in ADLs.
- ❖ Providers, family and caregivers know their role and how to support oral health of older adults.
- ❖ Advocates for LTC residents have incorporated oral health policies into the operation of their organizations.





STRATEGY # 5: SERVICES

TO ASSURE THE DELIVERY OF QUALITY, APPROPRIATE ORAL HEALTH SERVICES.

- 1. Collect data on oral health issues and concerns of older adults in the community and in nursing homes through a statewide survey.
- 2. Routinely integrate oral health into all health assessments for older adults.
- 3. Identify oral health best practices in program initiatives across the spectrum of care and disseminate for widespread implementation.
- 4. Partner with local social service agencies and schools of social work to reduce barriers (i.e. financial, health, housing, transportation) to accessing dental treatment.
- 5. Provide opportunities for private dental providers through collaboration with Area Agencies on Aging to provide low cost dental services to ambulatory elderly.
- 6. Utilize dental hygienists to provide preventive education and preventive treatment at senior centers, supportive housing, assisted living centers, and home care agencies.
- 7. Support targeted case management and care coordination for dental services to improve older adults' rate of making and keeping appointments.
- 8. Develop demonstration/pilot programs in nursing homes, assistant living sites, and older adult community housing to determine the effectiveness of dental hygiene service in improving oral health. The hygienists will provide training and education of facility staff, recommend ADL

protocols and procedures to improve patient oral health and nutrition, recommend internal policies and practice to improve compliance with access to oral health services, demonstrate effective oral hygiene practices for medically complex residents.

- 9. Provide opportunities for private dental providers and federally qualified community health centers to provide comprehensive oral health services in nursing homes settings.
- 10. Have a plan for providing a continuum of oral health care in all nursing homes serving the elderly that is reviewed and monitored by the state licensing agency on a yearly basis and recognition for those who perform well.
- 11. Institute, as a requirement of the regulations for Connecticut state agencies, a "basic standard of oral health care" in nursing homes to include the following:
 - a. Standardized annual assessment of oral health status that include screening for: oral cancer, xerostomia, dental caries, periodontal disease, dental abscess, and masticatory ability with and without dental appliances
 - b. Care plan updated annually that reflects findings of the annual assessment to include oral hygiene regime and treatment.
 - c. The presence of natural teeth or dentures will be noted on admission and dentures labeled with the resident's name or identifier if consent is given
 - d. Residents should have easy access to oral hygiene aides appropriate to their needs and replaced as appropriate.

Attainable Actions: Services

- The Department of Public Health to be a clearinghouse of information for "best practice" initiatives for older adults.
- The Department of Public Health to periodically conduct a statewide survey of older adults to document the oral health status and promote policies to improve oral health, access to care and service delivery.

- Local dental component societies of the CSDA to adopt a nursing home in their area to provide education to staff and assist nursing home administrators in identifying dental professionals to provide ongoing services (assessments, prevention and treatment) for residents.
- The Department of Public Health to continue to monitor the oral health concerns found in nursing homes but should also collect and document findings to develop an ongoing surveillance of oral health issues and to develop policies or protocols to improve oral health.
- The Departments of Public Health and Social Services to seek funding to conduct a pilot demonstration program in nursing homes, assistant living sites, and/or older adult community housing to determine the effectiveness of dental hygienists' services in improving oral health.
- The University of Connecticut, School of Dental Medicine to consider partnering with the School of Social Work to pilot a program to assist older adults with accessing dental treatment.
- State and community dental programs and private dental offices to make opportunities for social workers and social services students to address the barriers to care for their older adult patients.
- Mandate that all dentures manufactured in Connecticut are labeled with a patient identifier.
- The Connecticut State Dental Association (CSDA) to revise their website to make it easier to find a dentist in Connecticut.
- The CSDA to develop a policy for its members to select denture labeling for all their patients with removable dentures.
- The Department of Public Health to amend regulations to include a "basic standard of oral health care" for nursing homes that will replace the exiting oral health assessment requirement.
- The CANPFA to promote policies for their members in support of voluntarily incorporating routine oral hygiene as part of ADLs.

- The Office of the Long-Term Care (LTC) Ombudsman to change internal agency monitoring procedures to better capture oral health related problems and concerns of LTC residents.
- The Department of Social Services and the CT Primary Care Association to explore incentives for federally qualified health centers to become providers of oral health services in nursing homes.

Attainable Outcomes: Services

Health status of older adults is documented and can be used to inform policy and develop targeted interventions.

Best practices to improve oral health of older adults are available and accessible through the Department of Public Health's website.

Older adults are assisted with access to dental treatment through new or enhanced social workers relationship with dental providers.

Nursing home administrators have a source of oral health information, expertise and services for residents through CSDA's local component societies and community health centers.

Standard of care for oral health is implemented in nursing homes to improve oral health of residents and supported by CANPFA.

Advocates for long term care residents voluntarily set institutional standards for oral hygiene.



Appendix A: Task Force Membership

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University of Connecticut, School of Dental

Medicine

Appendix B: Acronyms

AAA Area Agencies on Aging

AARP (formerly) American Association of Retired Persons

ADHA American Dental Hygienists' Association

ADL Activities of Daily Living

AoA Agencies on Aging

BRFSS Behavioral Risk Factor Surveillance System

CANPFA Connecticut Association of Non-Profit Facilities Association

CDHA Connecticut Dental Hygienists' Association

CNA Certified Nursing Assistant

COHI Connecticut Oral Health Initiative

CSDA Connecticut State Dental Association

DDS Department of Developmental Services

DPH Department of Public Health

DSS Department of Social Services

LOB Legislative Office Building

LTC Long Term Care

MOA Memorandum of Agreement

SDM School of Dental Medicine, University of Connecticut

Appendix C: Prevalent Oral Diseases in Older Adults

I. Dental Caries

Tooth decay is heavily influenced by lifestyle - what we eat, how well we take care of our teeth, the presence of fluoride in our water and toothpaste. When foods that contain carbohydrates (sugars and starches) are consumed, these carbohydrates are eaten by the bacteria in plaque, producing acids that penetrate into the tooth. Over time, the tooth enamel begins to break down beneath the surface while the surface remains intact. When enough of the sub-surface enamel is eaten away, the surface collapses, forming a cavity. Heredity also plays a role in how susceptible teeth may be to decay. While dental caries are generally more frequent among children, adults are also at an elevated risk

Dental caries are most likely to develop in the depths of the chewing surfaces of the back teeth, in between teeth, and near the gum line. Left untreated, dental caries can destroy the tooth and kill the delicate nerves at its center, which then results in an abscess, an area of infection at the root tip. Once an abscess forms, it can only be treated with a root canal, surgery or by extracting the tooth.



Types of Dental Caries That Affect Older Adults:

- *Coronal cavities* the most common type occurring in both children and adults, coronal cavities usually are located on chewing surfaces or between the teeth
- Root cavities as we age, gums can recede, leaving parts of the tooth root exposed. Since there is no enamel covering tooth roots, these exposed areas easily decay.
- Recurrent decay decay can form around existing fillings and crowns. This is because these areas may have a tendency to accumulate plaque, which can ultimately lead to decay.

Adults are especially at risk for cavities if they suffer from xerostomia (dry mouth), a condition due to a lack of saliva. Dry mouth may be caused by illness, medications, radiation therapy and chemotherapy, and may be either temporary (days to months) or permanent, depending on its cause. Individuals in long-term care facilities, about 5 percent of the elderly, take an average of eight drugs each day. Thus making this population of older adults more susceptible to xerostomia and dental disease. (National Center for Chronic Disease Prevention and Health Promotion)

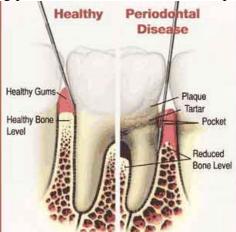
Several Medications that affect oral health include:

- 1. Antihistamines
- 2. Decongestants
- 3. Pain Killers
- 4. Diuretics
- 5. High Blood Pressure Medications
- 6. Antidepressants

II. Periodontal Disease

Periodontal disease, also known as gum disease, is one of the most common infections in the United States. More than seventy-five percent of adults over age thirty-five have some form of periodontal disease. Periodontal disease is painless until advanced stages. If left untreated, it can result in bad breath, red, swollen and bleeding gums, eventual tooth loss and systemic complications.

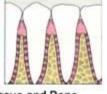
Periodontal disease is a bacterial gum infection that destroys the attachment fibers and supporting bone that hold teeth in the mouth. The main cause is bacterial plaque: a sticky, colorless film that constantly forms on your teeth. Daily oral hygiene, including proper brushing and flossing, is a must to prevent plaque buildup. If plaque is not removed, it can turn into a hard substance, called calculus, in less than two days. Calculus is so hard it can only be removed during a professional cleaning. If calculus develops below the gums onto the tooth root, it makes plaque removal more difficult, leaving you at increased risk for periodontal disease. Toxins produced by the bacteria in plaque irritate the gums, causing infection. These toxins also can destroy the supporting tissues around the teeth, including the bone. When this happens, gums separate from the teeth, forming pockets that fill with even more plaque and more infection.



As the disease progresses, these pockets deepen, more gum tissue and bone are destroyed, and the teeth eventually become loose. If periodontal disease is not treated, the teeth may need to be removed.

There are many forms of periodontal disease. The most common ones include: Gingivitis, Mild Periodontitis, Moderate to Advanced Periodontitis.

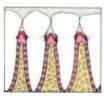




* HEALTHY (No Sign of Periodontal Disease)*

Healthy Gum Tissue and Bone

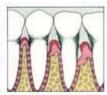




Gums and Bone with Gingivitis

Gingivitis: This mildest form causes gums to become red, swollen and bleed easily. There is usually little or no discomfort at this stage. Gingivitis is reversible with professional treatment and good home oral care.





Early stages of Periodontitis

Mild Periodontitis: If gingivitis is left untreated, it can advance to periodontitis. In the mild stage, it begins to destroy the bone and tissues that support the teeth.





Advanced Periodontitis

Moderate - Advanced Periodontitis: In the mid-stages, it can lead to more bone and tissue destruction. The most advanced form of this disease includes extensive bone and tissue loss. Teeth often become loose and may have to be removed.

Common Signs of Periodontal Disease Include:

- Bleeding gums during brushing
 - * Red, swollen, or tender gums
 - * Gums that have pulled away from the teeth
 - * Persistent bad breath
 - * Pus between the teeth and gums (leaving a bad taste)
 - * Loose or separating teeth
 - * A change in the way teeth fit together while biting
 - * A change in the fit of partial dentures

Periodontal disease has been shown to have a direct correlation with overall systemic health and is directly associated with diabetes, cardiovascular disease, and pneumonia; all systemic health issues that directly effect the elderly population.

Diabetes:

In Connecticut, six percent of the adult population has been diagnosed with diabetes. A greater number remain at risk for diabetes or are undiagnosed. Bacteria released into the blood stream, as a result of periodontal disease, leads to increased blood sugar levels within the body. This can make diabetes more difficult to control and increase the risk for diabetic complications. Conversely, diabetes, if left uncontrolled, may result in periodontal disease, significant bone loss around the teeth, and tool loss. Seventy percent of diabetics in Connecticut reported tooth loss in the 2004 CTBRFSS.

Cardiovascular Disease:

Cardiovascular disease is the number one cause of morbidity and mortality in Connecticut, accounting for forty-two percent of annual deaths and twenty-three percent of hospitalizations. Because dental caries and periodontal disease are chronic infections that are often asymptomatic, they could be the source of the increased levels of C-reactive protein that have been suggested as a predictor of myocardial infarction and stroke. {Reference – American Heart Association}

Pneumonia:

Several studies have suggested an association among dental plaque, poor oral health, and respiratory disease. Many case studies have described bacteria normally found in the oral cavity to be associated with lung infections. In addition, oral health status may contribute to nosocomial pneumonia and chronic obstructive pulmonary disease. (Reference- CDC)

III. Oral Cancer

This form of cancer involves abnormal, malignant tissue growth in the mouth, including the lips, tongue, gums and salivary glands.

Common signs and symptoms of oral cancer are:

- Swelling or thickening, lumps or bumps, or rough spots or eroded areas on the lips, gums or other areas inside the mouth
- Velvety white, red, or speckled patches in the mouth
- Persistent sores on the face, neck, or mouth that bleed easily
- Unexplained bleeding in the mouth
- Unexplained numbness or pain/tenderness in any area of the face, mouth, or neck
- Soreness in the back of the throat
- Difficulty in chewing or swallowing, speaking, or moving the jaw or tongue
- Hoarseness, chronic sore throat, or changes in the voice
- Dramatic weight loss





Factors that increase the risk of developing oral cancers include:

- Smoking Smokers are six times more likely to develop oral cancers than nonsmokers.
- Use of snuff or chewing tobacco increases the risk of cancers of the cheek, gums and lining of the lips by about fifty times.
- Excessive consumption of alcohol. Oral cancers are about six times more common in drinkers than in nondrinkers.
- Excessive exposure to the sun -- especially at a young age.

In 2003, 388 residents in Connecticut were diagnosed with cancer of the oral cavity and pharynx. Within the United States about 3.1% of all cancers diagnosed annually are found in the oral cavity with 44% of these lesions found in the elderly. {**Reference-USC**}

Appendix D: Identified Strategies for Preventing Oral Disease

The most common oral diseases and conditions can be prevented. Water fluoridation, tobacco control, and oral cancer screening are preventative measures that have been known to decrease the prevalence of oral diseases and conditions.

Community Water Fluoridation

Community water fluoridation is the process of adjusting the natural fluoride concentration of a community's water supply to a level that is best for prevention of dental caries. Fluoridating water is an ideal public health method because it is effective, eminently safe, and inexpensive, requires no behavior change of individuals, and does not depend on access or availability of professional services.

Strong evidence now exists that water fluoridation aids in the re-mineralization of the tooth, thus reversing the decay process after it has already commenced. Fluoride may also make teeth more resistant to bacterial acids and inhibit the growth of certain kinds of bacteria that produce these acids.

Public water systems in Connecticut serving 20,000 or more people are required by regulation to add fluoride to the water, maintaining an optimal fluoride content between 0.8 mg/l and 1.2 mg/l. In Connecticut, there are thirty-three public water systems that adjust their fluoride levels and some of these water systems sell their fluoridated water to other public water systems in the state. In 2004, eighty-eight percent of the population of Connecticut received fluoridated water.

Topical Fluoride

Fluoride is a substance that strengthens tooth enamel. This helps to prevent dental cavities. Topical fluoride is used as a medication to prevent tooth decay in patients that have a low level of fluoride in their drinking water. Fluoride is also used to prevent tooth decay in patients who undergo radiation of the head or neck, which may cause dryness of the mouth and an increased incidence of tooth decay. For communities that do not receive fluoridated water and persons at high risk for dental caries, additional fluoride measures might be needed. Community measures include fluoride mouth rinse and fluoridated toothpaste.

Tobacco Control

Use of tobacco has a devastating impact on the health and well being of the public. The use of any form of tobacco (i.e. cigarettes, cigars, pipes and smokeless tobacco) has been known as a direct cause of oral cancer and the overall health of the oral cavity. In Connecticut, 16.5% of adults smoke cigarettes, which represents about 440,000 of the states residents. Several groups in Connecticut are considered to be particularly at risk for negative oral effects of smoking. The populations include adults with income just over that of the poverty level (\$25,000 per year), those in fair or poor health, the uninsured, those who were unable to see a physician or dentist in

the past year due to cost, those without a regular physician or dentist, the unemployed, the disabled and those reporting fourteen or more days of poor mental health in the past month. These situations may create circumstances conducive to smoking or may present barriers to smoking cessation.

Integration of tobacco use prevention strategies in dental offices provides an opportunity to improve overall health of older adults.

Moderation of Alcohol

Heavy drinkers are at greater risk of developing cancer in the mouth, throat and esophagus, as well as, risking tooth decay from the increased exposure to sugars and acids within the drink. People with alcohol abuse problems have been shown to have a higher incidence of periodontal disease, tooth decay and potentially precancerous oral lesions. Thus, it becomes increasingly important to incorporate alcohol education in association with tobacco cessation programs.

Oral Cancer Screenings

Oral cancer detection is accomplished by a thorough examination of the head and neck and an examination of the mouth including the tongue and the entire oral and pharyngeal mucosal tissues, lips, and palpitation of the lymph nodes. If suspicious tissues are detected during examination, definitive diagnostic tests are needed, such as biopsies to confirm diagnosis. Oral cancer is more common after age sixty and early detection and treatment is among a major approach to prevention of the disease.

Preventative Dental Visits/ Oral Health Care

Maintaining good oral health requires consistent effort on the part of the individual, caregivers, and healthcare providers. Regular preventative dental care can reduce the development of disease and facilitate early diagnosis and treatment of potentially harmful oral health issues.



Appendix E: Current Resources for Oral Health Services In Connecticut

FAIRFIELD COUNTY

BRIDGEPORT

Fones School of Dental Hygiene Clinic (Preventive Services Only) Health Sciences Center 60 University Avenue (203) 576-4138

Optimus Health Care 982 East Main Street (203) 696-3270

Park City Primary Care Center, Inc 64 Black Rock Ave (203) 579-5000

Southwest Community Health Center 361 Bird Street (203) 330-6000

Southwest Community Health Center 968 Fairfield Avenue (203) 330-6000

DANBURY

Danbury Hospital 70 Main Street (203) 791-5010

GREENWICH

Greenwich Hospital 5 Perry Ridge Road (203) 863-3413

NORWALK

Norwalk Hospital 11 Maple Street (203) 852-2146

Norwalk Smiles 49 Day Street (203) 854-9292

STAMFORD

The Dental Center of Stamford 141 Franklin Street (203) 929-0802

STRATFORD

Stratford Community Health Center 727 Honeyspot Rd (203) 380-5283

HARTFORD COUNTY

EAST HARTFORD

East Hartford CHC Dental Clinic 94 Connecticut Blvd (860) 528-1359

FARMINGTON

University of Connecticut Health Center School of Dental Medicine 263 Farmington Ave (800) 535 6232

HARTFORD

Charter Oak Health Center 21 Grand St (860) 550-7500

Community Health Services 500 Albany Avenue (860) 808-8712

Hartford Hospital 79 Retreat Avenue (860) 545-2700

St Francis/Mt Sinai 131 Coventry Street (860) 714-2814

University of Connecticut at Burgdorf 131 Coventry Street (860) 714-2140

NEW BRITAIN

Community Health Center of New Britain 1 Washington Square (860) 224-3642 Special Care Dental Services (comm. clinic) 411 Osgood Ave (860) 225-2500

NEW BRITAIN

Special Care Dental Services (hospital) 2150 Corbin Ave (860) 223-2761

MANCHESTER

Manchester Community Dental Services 150 North Main St (860) 646-4678

LITCHFIELD COUNTY

No known community dental services for older adults

NEW HAVEN COUNTY

DERBY

Derby Dental Clinic 4 Mountain Street (203)-736-5460

MERIDEN

Medicare of Meriden 65 Miller Street (203) 639-3500

NEW HAVEN

Hospital of St Raphael (Oral Surgery only) 1450 Chapel Street (203) 789-3156

Yale-New Haven Hospital 789 Howard Ave Dana Bldg-2nd floor (203) 688-2464

Hill Health Center 428 Columbus Ave (203) 503-3040

WATERBURY

St. Mary's Hospital 133 Scovill St Suite 209 (203) 575-7055

WATERBURY

Waterbury Hospital 64 Robbins Street (203) 573-6286

StayWell South End Health Center 1302 South Main St (203) 597-9044

NEW LONDON COUNTY

NEW LONDON

Community Health Center of New London 1 Shaw's Cove (860) 447-8304

NORWICH

United Community Services 47 Towne Street (860) 892-7042

MIDDLESEX COUNTY

OLD SAYBROOK

Community Health Center of Old Saybrook 263 Main Street (860) 388--4433

MIDDLETOWN

Connecticut Valley Hospital (by referral only) Eastern Drive (860)262-6330

Community Health Center of Middletown 635 Main Street (860) 347-6971

TOLLAND COUNTY

No known community dental services for older adults

WINDHAM COUNTY

WINDHAM

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Generations Family Health Center 1315 Main Street (860) 450-7471

Appendix F: Bibliography

A State of Decay: The oral health of older Americans. W.K. Kellogg Foundation. 2003.

Abdellatif HM, Burt BA. An epidemiological investigation into the relative importance of age and oral hygiene status as determinants of periodontitis. *Journal of Dental Research*. 1987. 66(1): 13-18.

Ahluwalia, K. Oral health care for the elderly: more than just dentures. <u>American Journal of Public Health</u>. 2004;94(5) 698.

Allukian Myron Jr. The neglected epidemic and the surgeon general's report: a call to action for better oral health. *American Journal of Public Health*. 2000;90(6): 843-845.

Barnett ML, Philstrom BL. Methods for enhancing the efficiency of dental/oral health clinical trials: current status, future possibilities. *Journal of Dental Research*. 2004; 83(10): 744-750.

Brady MC, Furlanetto Denise LC, Hunter RV, Lewis SC, Milne Vikki. Improving oral hygiene in patients after stroke. *Stroke: Journal of the American Heart Association*. Available at: http://stroke.ahajournals.org. Accessed on December 3, 2007.

Bulletin of the World Health Organization. More oral health care needed for ageing populations. September 2005; 83(9).

Centers for Disease Control and Prevention. National Center for Health Statistics. New series of reports to monitor health of older American. Fact Sheet. 2001. Available at: http://www.cdc.gov/nchs/pressroom/01facts/olderame.htm. Accessed December 3, 2007.

Centers for Disease Control and Prevention. Oral Health Resources. Fact Sheet: oral health for older Americans. Available at: http://www.cdc.gov/OralHealth/factsheets/adult-older.htm Accessed on December 3, 2007.

Colorado Department of Public Health and Environment. Old age pension dental program. Available at: http://www.cdphe.state.co.us/pp/oralhealth/OAP.html . Accessed on December 3, 2007.

Desvarieux Moise, Demmer Ryan, Rundek Tatjana, Boden-Albala Bernadette, Jacobs David Jr, Papapanou Panos, Sacco Ralph. Relationship between periodontal disease, tooth loss, and carotid artery plaque: the oral infections and vascular disease epidemiology study (INVEST). *Stroke: Journal of the American Heart Association*. Available at: http://stroke.ahajournals.org. Accessed on July 11, 2007

Dolan TA, Atchison K, Huynh Tri N. Access to dental care among older adults in the United States. *Journal of Dental Education*. 2005;69(9): 961-974.

Douglass Chester, Sheets Cherilyn. Patients' expectations for oral health care in the 21st century. *JADA*. 2000;131: 4S-6S.

Fleck Carole. Nothing to smile about: too few Americans get oral health care, spawning a silent epidemic of dental disease. *AARP Bulletin*. 2006.

Folse Gregory, Glassman Paul, Helgeson Michael. The special care dentistry act: an opportunity to save health costs and improve oral health for America's most vulnerable citizens. *Special Care Dentistry*. January 2005.

Department of Public Health. Oral health in Connecticut report 2007. Available at: http://www.ct.gov/dph/lib/dph/oral_health/pdf/oral_health/pdf/oral_health_in_ct.pdf

Gooch Barbara, Malvitz Dolores, Griffin Susan, Maas William. Promoting the oral health of older adults through the chronic disease model: CDC's perspective on what we still need to know. *Journal of Dental Education*. 2005; 69(9) 1058-1063.

Hung Hsin-Chia, Willett W, Ascherio A, Rosner BA, Rimm, E, Joshipura, K J. Tooth loss and dietary intake. *JADA*. 2003;134.

Joshipura Kaumudi. The relationship between oral conditions and ischemic stroke and peripheral vascular disease. *JADA* 2002; 133:23S-30S.

Lamster Ira B. Oral health care services for older adults: a looming crisis. *American Journal of Public Health.* 2004; 94(5): 699-702.

Lee Jung Sun, Weyant RJ, Corby P, Kritchevsky SB, Harris TB, Rooks Ronica, Rubin SM, Newman. AB. Edentulous and nutritional status in a biracial sample of well-functioning, community-dwelling elderly: the health, aging, and body composition study. *American Journal of Clinical Nutrition*. 2004; 79:295-302.

Leibovitz A, Carmeli Y, Segal R. Effect of various antibacterial preparations on the pathogenic oral flora in elderly patients fed via nasogastric tube. *Antimicrobial Agents and Chemotherapy: American Society for Microbiology.* 2005;3566-3568

Loesche WJ, Schork A, Terpenning MS, Chen Yin-Miao, Dominguez Liza, Grossman N. Assessing the relationship between dental disease and coronary heart disease in elderly U.S. veterans. *JADA*. 1998;129: 301-311.

Matear David, Gudofsky Irwin. Practical issues in delivering geriatric dental care. Journal of the Canadian Dental Association. 1999;65:289-291.

Mertz Elizabeth, O'Neill Edward. The growing challenge of providing oral health care services to all Americans. *Health Affairs*. 2002; 21(5): 65-77.

Older Americans Act. Available at: http://www.aoa.gov/about/legbudg/oaa/OAA-compilation-unofficial.pdf. Accessed December 3, 2007.

Paradis Lee, Ferraro Linda. A caregiver's practical guide to oral care for the elderly. Connecticut Department of Public Health: Office of Oral Public Health. *Unpublished*. 2007.

Pyle Marsha A, Stroller Eleanor. Oral health disparities among the elderly: interdisciplinary challenges for the future. *Journal of Dental Education*. 2003;67(12): 1327-1336.

Ritchie Christine, Joshipura Kaumudi, Hung Hsin-Chia, Douglass Chester. Nutrition as a mediator in the relation between oral and systemic disease: associations between specific measures of adult oral health and nutrition outcome. *Critical Review in Oral Biology and Medicine*. 2002;13(3): 291-300.

Rubinstein Helena Gail. Access to oral health care for elders: mere words or action? *Journal of Dental Education*. 2005;69(9):1051-1057.

Scannapieco, Frank. Pneumonia in non-ambulatory patients: the role of oral bacteria and oral hygiene. *JADA*. 2006;137: 21S-25S.

Special Care Dentistry Association. A policy brief on Medicaid benefits. December 2003.

Shay K, Scannapieco FA, Terpenning MS, Smith BJ, Taylor GW. Nosocomial pneumonia and oral health. *Special Care Dentist.* 2005;25(4):179 – 187.

Skrepcinski FB. et al. The oral health of adults and elders. *The IHS Primary Care Provider*. 2002;27(1): 1-24.

Sladel GD, Spencer AJ, Locker D, Hunt R.J, Strauss RP, Beck JD. Variations in the social impact of oral conditions among older adults in South Australia, Ontario, and North Carolina. *Journal of Dental Research.* 1996;75(7): 1439-1450.

Streckfus, Charles F. An eight-year study of oral carcinoma in an elderly Black population. *American Journal of Public Health*. 1991;81(3): 389.

Stolzenberg-Solomon RZ, Dodd KW, Blaser MJ, Taylor PR, Albanes D. Tooth loss linked to pancreatic cancer in smokers. *American Journal of Clinical Nutrition*. 2003; 78:176-181.

U.S. Department of Health and Human Services. Oral health care for older adults: information for patients and professionals. <u>National Institute of Dental and Craniofacial Research</u>. 2003;OP-41

Ylostalo PV, Laitinen EEK, Knuuttila ML. Optimism and life satisfaction as determinants for dental and general health behavior – oral health habits linked to cardiovascular risk factors. *Journal of Dental Research.* 2003;82(3) 194-199.