ORAL HEALTH FLORIDA COALITION

SENIOR WORKGROUP

REPORT: ORAL HEALTH CARE FOR FLORIDA’S VULNERABLE ELDERLY

November 16, 2011
INTRODUCTION

In 2005, the Florida Agency for Health Care Administration retained the TRECS Institute, North Wales, PA, to conduct a study of the oral health care status of the state’s senior population, especially of those residing in nursing homes. The report’s conclusions are still valid today and serve as an introduction to the Oral Health Florida Coalition’s senior workgroup report on the oral health status of the vulnerable elderly.

The first ever Surgeon General’s Report on Oral Health Care, published in May 2000, alerted Americans that oral health care is critical to general health and well-being, and can be achieved (U.S. Department of Health and Human Services, 2000). However, profound oral health disparities exist within the U.S. population. Those who suffer the worst oral health care and hygiene include older adults residing in nursing homes.¹

Oral health care for elders is under-funded, under-researched, and has been a low health care priority. The Surgeon General’s recent report on “Oral Health Care in America” identified frail elders and nursing home residents among the populations most vulnerable to poor dental care.² Currently, there are approximately 34.5 million people age 65 and older living in America. This number is expected to increase to 70 million by 2030.³ Of this 65 age cohort, 5 percent reside in over 16,100 nursing homes in the United States. An additional 16 percent of those 85 and older also reside in nursing homes.⁴ It has

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been estimated that this increasing over 65 population will easily double the need for nursing
home or similarly intense care levels in this nation in the foreseeable future. As the Secretary of
Health and Human Services notes, “Ignoring oral health problems can lead to needless pain and suffering,
causing devastating complications to an individual’s well being, with financial and social
costs that significantly diminish quality of life and burden American society.”

Yet the changing needs of elders have not been recognized in the overall health
care plan for this special cohort. In the 1960’s, when most of our current health care policies
were being developed, the majority of elders did not have natural teeth; dental care for elders
was synonymous with denture care. Today, not only are people living longer, they are
retaining the majority of their natural teeth. With the retention of natural teeth, dental
care and maintenance becomes more complex and the neglect of dental care can lead to
increased health risks.

Oral needs of institutionalized elderly represent a special challenge. The number
of elderly and the amount of elder dental disease is increasing in the United States. The
elderly population over 65 years old is expected to double over the next twenty-five
years so that by 2030, twenty five percent of Americans (about 70 million) will be

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sixty five years of age or older. Between 1960 and 1994, the population of the “oldest-old,” (those above age eighty-five) increased by two hundred and seventy-four percent.\textsuperscript{11, 12}

Since elders are retaining their natural teeth, their risk of oral disease increases and it increases even more rapidly among elders unable to adequately perform their daily oral hygiene care. However, even for elders without teeth, the risk for oral disease is increased. The incidence of oral mucosal diseases increases with the presence of chronic diseases and use of multiple medications.\textsuperscript{13} Oral disease can complicate certain medical problems and many medical problems can increase risk of oral disease.\textsuperscript{14} Additionally, elders are prescribed an ever-expanding variety of medications; over 80 percent of which are known to have adverse oral tissue side effects.\textsuperscript{15} Oral soft tissue lesions are estimated to annually affect 10-38 percent of elders 65 and older, with the highest rate among frail and institutionalized elders.

Dental disease rates actually begin to increase after age 45 and nearly double by age 65. Since elders are retaining their teeth, their risk of dental disease continues throughout their life. Aging alters the immune system response which coupled with common chronic conditions and medications, results in a growing population with growing rates of disease and a growing level of need.

\textsuperscript{12} See n. 11
\textsuperscript{14} Burt BA, Epidemiology of dental diseases in the elderly, [Review] Clinics in Geriatric Medicine, 8(3):447-59 (1992 Aug).
Exclusion of oral health from general health issues and from coverage in Medicare compounds the problem.\textsuperscript{16,17} Dental professionals suggest that dentistry’s evolution from the focal infection theory and exodontias (extraction of teeth) to today’s advanced restorative and preventative care has created a new need for oral care among the current and future elderly dental consumers.\textsuperscript{18}

The 2000 Surgeon General’s report findings was the catalyst for the current call to action of policymakers, community leaders, industry, health professionals and the public. Under the leadership of the Office of the Surgeon General, a National Call to Action was established in the spring of 2005.

According to the data collected at the Call to Action, the following elderly facts were extrapolated.

- Twenty-three percent of 65 to 74 year old have severe periodontal disease.
- Thirty percent of adults 65 years and older are edentulous.
- Individuals in long-term care facilities are prescribed an average of eight drugs. Many of these drugs have side effects such as dry mouth. The decrease in saliva increases the risk of oral disease.
- Five percent of Americans aged 65+(approximately 1.65 million) are living in a long-term care facility where dental care is problematic.

Oral care in the United States is provided predominantly by dental professionals in private practice. People who are able to 1) recognize the need for care; 2) identify a


provider; 3) obtain transportation to the provider or convince the provider to come to the
facility, and 4) pay for needed care, can enjoy the highest level of oral health care in the
world. According to dental access studies, inabilitys by many elderly, especially nursing
home residents, to meet these four factors are among the most prevalent reported barriers to
dental care. Data from the U.S. Department of Health and Human Services states that
a lack of dental insurance, private or public is one of several impediments to obtaining oral
health care.

Once an individual enters a nursing home, their access to adequate dental care
drops markedly. Estimates of the percentage of these patients with unmet dental needs range
from 80% to 96%. This problem is likely to worsen when the baby-boom generation
reaches the age when a substantial number will require LTC in a nursing home.

Studies during the past decade have identified specific statistics concerning nursing facility
residents that are concerning in general but especially from a dental care perspective:

- Women outnumbered men by approximately 3:1
- The typical resident needed help with four activities of daily living (ADLs), which are
  bathing, dressing, eating, toileting, and transferring-as from a bed to a chair.
- Two thirds relied on Medicaid to pay for their care
- 6% were confined to bed
- 80% took six or more medications daily

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20 Warren JJ, Kambhu PP, Hand JS,. Factors related to acceptance of dental treatment services in a
21 National Nursing Home Survey 1999. Selected characteristics of homes, beds and residents. Table 3.
Division of Data Services, National Center for Health Statistics, Centers for Disease Control and
24 see n. 20
• Up to 78% had untreated caries
• More than 40% had periodontal disease
• Up to three quarters of those over 65 had lost some or all teeth
• More than half of those over age 75 were edentulous
• 80% of those who had lost all teeth had dentures, but 18% did not use them.

The oral health of the growing elder population in long-term care facilities is becoming an important social issue. Over the past several decades, the pattern of oral disease has been shifting. Older adults in the United States are retaining their teeth longer with a significant decline in the rate of edentulism. In the New England Elders Dental Study (NEEDS), Douglass et al reported a significant decline in edentulism from 1962 to 1990 among elders age 70 and over. The number of retained teeth per person has increased. Consequently, increased tooth survival has resulted in an increase in teeth exposed to the risk of dental disease. The NEEDS findings reveal a high prevalence of root caries in New England elders, suggesting a greater need for dental care than for previous generations of elders. The increasing number of older people living in nursing homes at some point in their lives, combined with declining tooth loss among the elderly, will lead to increased need for dental services within long term care facilities.

The U.S. Surgeon General’s report Oral Health in America emphasizes the

26 See n. 23
28 see n. 23
29 see n. 25
30 see n. 23
33 See n. 32
importance of oral health care to overall general health. The report describes the existing disparities in access to dental services among different population groups, especially the very young and very old. Berkey et al.\textsuperscript{34} reviewed the oral health status of elderly nursing home residents and reported that 70 percent of residents had unmet oral health needs. The residents exhibited high rates of dental caries, edentulism, poor oral hygiene, periodontal disease, and soft tissue lesions. Unfortunately, there are obstacles in improving and maintaining good oral health for those individuals.

Many elderly Americans lack the financial resources to access dental care. Upon retirement, few older adults retain dental insurance. Kington at al.\textsuperscript{35} found that only 13 percent of elder Americans have private dental insurance. Findings from the 1989 National Health Interview Survey conducted by Bloom at al.\textsuperscript{36} reports significantly higher utilization of dental services by those elders with private dental insurance than those without.

Barbara Smith, PhD completed her doctoral thesis in 2002 for the University of Michigan looking at “Stability of Oral Health Status in a Long-Term Care Population – A Longitudinal Analysis of Dental Treatment Needs.” Her study focused on records maintained for almost 20 years from Apple Tree Dental, a non profit organization located in Minneapolis, Minnesota and serving the residents of approximately 80 nursing homes in that area. What is unique about the population of nursing home residents served by Apple Tree Dental is that this organization, with its non-profit mission, has literally broken

the reimbursement barrier and its residents receive regular dental screenings, cleanings and
care, unlike other nursing home residents across the nation. By breaking the reimbursement
barrier, this unique organization is able to hire and reimburse its professional staff in a
manner that makes working with nursing home residents an economically sound business
model. Apple Tree Dental is only able to do this because of the outside funding it is
able to raise as a non profit organization that helps supplement the program’s basic
operation. These findings strongly suggest that a private or commercial dental insurance
program that would essentially eliminate the reimbursement barrier currently in place and
effectively make the business of providing professional dental care to nursing home
residents a financially sound model, could have a profound impact on the industry.

Another very interesting finding from Dr. Smith’s work is the confirmation that a
large percentage of elderly take very poor care of their oral health needs between the time
they retire and the point at which nursing home placement becomes a reality. As a result,
Dr. Smith found that the average nursing home resident, if seen by a dentist upon
admission, requires an average of 13.2 initial dental treatments with a mean ranging from
2 to 66! Furthermore, after three visits and with regular and consistent oral care, the
ongoing need for professional care stabilized and was dramatically reduced.

Oral health is integral to an older adult’s general health and quality of life, and
basic oral health services are an essential component of primary health care.\(^{37}\)
Though not usually life threatening or seriously impairing for the majority of
people, unchecked oral diseases in an older person can have far greater systemic

impact than in a younger individual. A common route of systemic infection by oral
micro-organisms is through the aspiration of oropharyngeal fluids containing oral
pathogenic micro-organisms, which can cause pneumonia in patients with diminished
host defenses.\textsuperscript{38} A link has been shown between dental disease and coronary heart
disease.\textsuperscript{39} Dental infections have also been shown to be a risk factor for
arteriosclerosis.\textsuperscript{40} Some other dire consequences reported for the elderly are nutritional
compromise, empyema, bacteremia, and brain abscess.\textsuperscript{41} As well as placing residents
at risk for life threatening conditions, oral health problems also affect self-esteem, the
ability to maintain a favorable self-image, and the ability to masticate food comfortably
and efficiently (which may adversely affect nutritional status).\textsuperscript{42} Oral health problems
can hamper one's ability to live without pain or discomfort. Above all, oral health is
crucial to an individual's quality of life.\textsuperscript{43} It is tragic that people whose quality of life is
already diminished due to cognitive and functional loss may also be suffering
unnecessarily from untreated oral disease.\textsuperscript{44} Nursing home elderly, perhaps more than
any other nursing home population group, need complete, comprehensive, and routine
dental services to maintain an adequate level of oral health.\textsuperscript{45}

\begin{thebibliography}{99}
\bibitem{Limeback} Limeback H. \textit{Implications of oral infections on systemic diseases in the institutionalized elderly with a special focus on pneumonia.} Ann Periodontol 3:262-75,1998.
\bibitem{Meurman} Meurman JH. \textit{Dental infections and general health.} Quintessence Int 28:807-11, 1997.
\bibitem{See} See n. 37
\bibitem{See2} See n. 42
\end{thebibliography}
lack of perceived need, access, staff knowledge, institutional constraints,

reimbursement difficulties, dentists' lack of geriatric dental care knowledge and the
difficulty of treating elderly with functional impairment make this a unique challenge.

These aging Americans deserve the opportunity to age gracefully and with dignity.

They should maintain their teeth for a lifetime with manageable oral health care, and

minimal functional problems that allow for a positive appearance, articulation and

functionality. Above all, the senior citizens should have the oral care they need to pursue the

quality of life they deserve.

Footnotes:


12 See n. 11


FEDERAL REGULATIONS FOR NURSING HOME CARE

Routine dental services for nursing home residents are mandated by federal law. Under CFR Title 42, Chapter IV, §483.55, nursing home facilities must provide 1) routine dental services...
and, 2) emergency dental services. These facilities must also make appointments, including making arrangements for transportation of the resident to and from the dental office.

Under Chapter IV, §483.15 (g) Social Services, the facility must provide medically-related social services to attain or maintain the highest practicable physical, mental and psychological well-being of each resident.

Based on the interpretation of the law, routine dental services means an annual inspection of the oral cavity for signs of disease, diagnosis of dental disease, dental radiographs as needed, dental cleaning, fillings, minor denture adjustments, smoothing of broken teeth and dentures. Emergency dental services would include relief of pain and infection in the teeth, gums, palate; repair of damaged teeth; or any other problem of the oral cavity by a dentist that requires immediate attention. In the case of lost or damaged dentures, the facility will promptly refer the resident to a dentist for appropriate dental treatment.

PROVIDING CARE FOR THE VULNERABLE ELDERLY

Overview

It is difficult to comprehend what is ahead for the vulnerable elderly in terms of needed dental treatment. The American Dental Association defines these individuals as those over 65 who have either limited financial resources, limited mobility, or present with a complex health status or are medically compromised. Florida has considerably more elderly than the national average: 17.6% compared to 12.4% nationally. Couple that with the fact that Florida is second only to California in the number of residents in nursing homes and long term care facilities and one can see why it has become increasingly difficult to comply with all state and federal guidelines related to oral health care for these residents.
In 2000, there were 35 million Americans over age 65 – 12.5% of the population of which 4.5% or 1.75 million were residents of nursing homes. By 2030, one out of every five Americans will be older than 65 and projections show that this segment of the population will double to 70 million with the number of residents in nursing homes increasing to 3.4 million. Taking it a step further, the Federal Interagency Forum on Aging Related Statistics, 2006 projects that by 2050 there will be over 90 million persons age 65 and older (20.7% of the population) of which 20 million will be 85 and older. Life expectancy rates increased from 70 to 76 years of age between 1960–2004 and today it is even higher. Needless to say, the elderly population is growing by leaps and bounds, and these individuals are retaining their teeth longer and have more oral health problems that make treatment increasingly difficult and complex.

The Department of Elder Affairs oral health objectives are to promote the development of a comprehensive oral health program to reduce dental diseases including dental caries, periodontal diseases and oral cancer; to reduce associated risks of diseases that are showing interrelatedness to periodontitis and to increase access to dental care for low-income adults with special needs. The long term spectrum includes those facilities that serve residents with special needs such as mental retardation, autism, cerebral palsy and epilepsy; nursing homes and assisted living facilities which were developed in the late 1980’s as a new housing and service model with the philosophy that promotes autonomy and decision making. These facilities are generally smaller than nursing homes and residents have private apartments and bathrooms.

Long term care facilities must provide healthcare services to their residents in compliance with federal and state guidelines as previously mentioned. These include: implementing OBRA, the Omnibus Reconciliation Act of 1987, which requires that each resident receive a comprehensive oral health assessment within 14 days of admission and annually thereafter, as well as a
comprehensive oral health plan and that oral hygiene be made available to residents unable to
carry out their activities of daily living (ADL’s); complying with QIS, the quality index indicator
survey, which is a survey including oral health of residents, caregivers and staff to determine
levels of care against national standards; meet State of Florida standards (audits); and meet
federal standards for Centers for Medicare and Medicaid Services (CMS). QIS has a national
implementation goal by 2010, and deficiencies can lead to fines by CMS.

Federal regulations regarding dental care for residents in long term care facilities are
clearly spelled out in the following statutes: 42 CFR, Chapter 483.20: provide, if a resident is
unable to carry out activities of daily living, the necessary services to maintain good nutrition,
grooming and personal and oral hygiene; and 42 CFR, Chapter 483.55: aid residents to obtain
routine and 24 hour emergency dental care by assisting with appointments and transportation (per
private insurance or Medicaid coverage). Additionally Florida Regulation 400.002 (c) states that
any entity or individual that provides health, social, legal or other services to a resident has the
right to have reasonable access to the resident. The resident has the right to deny or withdraw
consent to access at any time by any entity or individual.

The delivery of dental services in long term care facilities includes the following: Florida
licensed dentist through contract service to facility or patient of record; dental student extramural
program from the University of Florida College of Dentistry or Nova Southeastern University
College of Dental Medicine; Florida Registered Dental Hygienist through patient of record (dentist
prescription), contract service company employee, or general supervision tasks; and facility staff
including CNA, LPN and RN among others. The use of allied personnel such as Registered Dental
Hygienists (RDH) is critical to meeting the level of dental care spelled out in Federal and State
regulations. RDH’s are currently limited to providing services to employer Dentists patients of
record under a prescription order that is good for 13 months following a dental exam to include:

- basic oral hygiene and educational programs, prophylaxis or teeth cleaning, fluoride treatments
- and dental charting of suspected findings in the oral cavity. Regarding the use of non-dental professionals such as CNA, LPN and RN's in rendering dental treatment, Geriatric Nursing, 2006, stated that these individuals' outlook on the provision of oral health care was burdensome, unrewarding, problematic and trivial.

With the introduction of the MDS 3.0 in October of 2010, nursing facilities began seeing more scrutiny in the survey process with specific attention to HCFA F Tag-411 & F412, which requires all nursing home residents receive routine dental care. Historically, surveyors did not focus on dental care however, with MDS 3.0 that will hopefully change to help assure nursing facility residents are receiving the level of dental care services they deserve.

Apple Tree Program

The “Gold Standard” of dental care for the vulnerable elderly is Apple Tree Dental in Minnesota. They have been providing care since 1986 to more than 100 sites in central, southeastern and northwestern Minnesota in nursing homes, group homes, Head Start Centers, schools and assisted living facilities. Their goal is to provide on-site dental services that are appropriate, necessary and cost-effective. Apple Tree Dentists believe that one of the keys in rendering this dental care most effectively to patients in nursing homes and similar facilities is to bring the treatment to them. Familiar surroundings comfort patients and make them more amenable to accepting the necessary dental care they need, and treatment outcomes are therefore enhanced, especially with cognitive-impaired patients. It is important to treat these patients in an environment that lets them feel safe and secure. Dental Teams travel to one “satellite site” each
day with a dentist and two assistants. Apple Tree’s Multi-site delivery vehicles deliver the portable
dental equipment into the facility and a complete dental office is set up. The Dentist Teams provide
comprehensive dental services such as check-ups, cleanings, restorations, root canals and
extractions. At the end of the day equipment is picked up and delivered to another site. Denture
Dentists travel to several sites each day also. They make impressions for new dentures, relines
and repairs. Making new dentures generally takes four to six weeks. Denture repairs usually take
three or four days, with special rush services available.

Apple Tree has recently added a new service to include more emphasis on prevention in
response to new federal and state initiatives to improve oral health. This program is called the
Dental Director Program and the following services are provided: oral health screenings for each
resident; establish daily oral health care plans; train facility staff regarding oral health issues; and
establish oral health care policies and procedures to comply with regulations. Because of the
“upstream” prevention program, nursing home residents enjoy the benefits of earlier identification
and treatment of oral disease. Good oral health can lead to improved self-image, taste perception,
enjoyment of food and social interaction.

For Apple Tree’s nursing home sites, the Dental Director Program is a part of the
Comprehensive Care services. A Dental Professional Screener (Hygienist or Dental Assistant)
visits the facility monthly to assist with the oral screenings section of the Minimum Data Set (MDS)
and establish daily oral care plans for all residents of the facility. Dr. Michael Helgeson, President
and CEO, states that Apple Tree has an annual budget of over 10 million dollars which includes
grants, private pay, dental insurance and Medicaid payments among others.

Apple Tree has a long history of helping others utilize the Apple Tree Model delivery
system for oral health care in other states across the country. Over the years, Apple Tree has
designed and implemented a mobile system that includes mobile dental offices, a delivery truck system and an integrated software system for scheduling, record keeping and billing. The Apple Tree Model has been replicated in North Carolina and Louisiana very successfully to date.

If the proper funding existed, the Apple Tree Model could be extremely successful in Florida.

**Utilization of Dental Hygienists**

It is commonly recognized that oral health services must be made more accessible, particularly for vulnerable elderly. The results of not receiving timely preventive and treatment services are dramatic and can be devastating to overall health. Providing preventive oral health services to all sectors of society ensures a healthier, more productive population.

It is important to make preventive dental services provided by educationally qualified, licensed providers easily accessible to Floridians. Dental Hygiene is the science and practice of the recognition, treatment and prevention of oral diseases. Dental hygienists are required to graduate from an accredited dental hygiene program that is at least two years in length. Many are surprised to learn that the dental hygiene associate degree education is 88 college credit hours compared to the 72 college credit hours of nursing associate degree education.\(^1\) The dental hygiene curriculum encompasses general education, biomedical sciences, dental sciences, and dental hygiene sciences. According to the accreditation standards for dental hygiene education programs, these subjects prepare dental hygiene students to communicate effectively, assume responsibility for individual oral health counseling, develop and participate in community health programs, and provide dental hygiene care for the child, adolescent, adult, geriatric and special needs patient.\(^2\)
Graduation from an accredited program is followed by successful completion of the National Board Dental Hygiene Examination. This qualifies graduates to take a state or regional licensing examination that includes both a written and clinical component. Dental hygienists must be licensed in the state in which they work and must practice in accordance with regulatory laws and state practice acts. Florida requires dental hygienists to pass a written examination on the laws covering dentistry and a clinical examination in which the candidate demonstrates competency in a specified list of skills. Applicants must be at least 18 years old and meet educational requirements. In addition they must complete from 24 to 36 hours of continuing education every two years in subjects designed to contribute to the dental education of the hygienist.

In Florida, state laws and rules prohibit direct access to a registered dental hygienist (RDH). Preventive services are currently provided by the RDH under the general supervision of a dentist with the exception of fluoride varnish application which can be performed without dental supervision. General supervision in our state requires that a Florida licensed dentist examine the patient, diagnose a condition to be treated and authorize the procedure to be performed. Any authorization for remediable tasks to be performed under general supervision is valid for a maximum of 13 months; after which no further treatment is permitted without another clinical exam by the dentist (466.003(12), F.S. & Rule 64B5-16.001 (7), Fla. Admin. Code). However, in many states general supervision does not require a prior examination of a dentist.

The current model of oral health care is based on private practice which is not accessible, affordable or valued by those who are underserved, uninsured or have no access to care. Florida’s 67 counties include groups of communities that have been designated as Dental Health Professional Shortage Areas. This means the people living in these communities have to travel
long distances to access the care they need to stay healthy. The number of general dentists practicing in the United States relative to the population has continued to decline since the 1990’s. In addition, the number of dentists in Florida that accept Medicaid is very low reporting at 9%. The dental hygiene workforce is already greater in number than the dental workforce in Florida.

Innovative states have been able to design programs that connect communities with the preventive oral health care needed to stay healthy. Thirty-one states provide direct access to dental hygiene services. Direct access means the dental hygienist can initiate treatment without the specific authorization of a dentist, treat the patient without the presence of a dentist, and can maintain a provider-patient relationship. The laws and rules in each state are individually unique in defining the process that is required to achieve direct access to preventive services provided by a dental hygienist.

Progress is being made in Florida to consider how to best utilize the existing dental hygiene workforce. In January 2008, the State Surgeon General established the Florida Health Practitioner Oral Healthcare Workforce Ad Hoc Committee which made recommendations to the Governor’s office to investigate policy reform that would expand the scope of practice and eliminate or reduce supervisory requirements for dental hygienists practicing in health access settings in order to improve access to dental care. In August 2008, the Health Resources and Services Administration (HRSA) awarded the Florida Department of Health’s Public Health Dental Program a grant to develop a statewide needs assessment and a strategic planning report to be used to improve the state’s dental workforce and service delivery infrastructure for the underserved. The strategic plan included regulatory and legislative reform to reduce supervision levels of dental hygienists in health access settings. Currently, the third generation of the workforce workgroup has been convened to continue the work of the two previous groups. The Florida Board of
Dentistry is in the process of promulgating rules to address the current workforce needs. In addition, the Florida Dental Association and the Florida Dental Hygiene Association are working together to develop legislative language for the 2011 legislative session.

Now, the question is how to best provide dental hygiene services to Florida’s vulnerable elderly in facilities of long term care, assisted living, nursing homes and senior centers. To date, discussion has evolved around health access settings as defined in s. 466.003 (14), F.S. which includes federally qualified health centers (FQHC), FQHC look-alikes as defined by federal law, and community health centers, but is not inclusive of all long term care, assisted living, nursing homes and seniors centers.

One answer might be to explore a collaborative agreement/affiliation between a Florida licensed dentist and a Florida licensed dental hygienist to provide preventive services to seniors in facilities of long term care, assisted living, nursing homes and senior centers. The collaborative agreement/affiliation would authorize specific dental hygiene services without the prior examination or presence of a dentist in specific locations. The agreement/affiliation should establish a specific protocol which could include:

1. Name of dentist and dental hygienist
2. Standing order for specific dental hygiene services
3. Location
4. Dentist available for consultation
5. Dental Referral process outlined

As mentioned earlier, thirty-one states provide direct access to dental hygiene services. Each state customizes the details of how this authority is outlined in the laws and regulations of the state.
Oral disease is almost entirely preventable. Utilize our prevention specialists, the existing dental hygiene workforce, to help solve this problem efficiently and cost-effectively. In fact, for every dollar spent on the type of preventive care provided by dental hygienists, between $8 and $50 are saved in restorative and emergency treatment services.\textsuperscript{11} Ensuring regular access to and coverage for preventive care can diminish the need for more costly restorative and emergency care, saving valuable health care dollars in the long-run.\textsuperscript{12}

The Surgeon General’s 2000 report on oral health in America noted that the development of systemic disease is strongly associated with an overabundance of bacteria and inflammation in the oral cavity. The oral cavity has long been considered a potential reservoir for respiratory pathogens. Several anaerobic bacteria from the periodontal pocket have been isolated from infected lungs. In elderly patients living in chronic care facilities, the colonization of dental plaque by pulmonary pathogens is frequent. Notably, the overreaction of the inflammatory process that leads to destruction of connective tissue is present in both periodontal disease and emphysema. This overreaction may explain the association between periodontal disease and chronic obstructive pulmonary disease, the fourth leading cause of death in the United States. These findings underline the necessity for improving oral hygiene among patients who are at risk and those living in long-term institutions.

Dental hygiene in public health is an expanding field, and according to the U.S. Bureau of Labor Statistics (\url{www.bls.gov}), dental hygienists’ employment is expected to increase by 36\% from 2008 to 2018, much faster than average for all occupations. The delivery of modern health care depends on an expanding group of trained professionals coming together as an interdisciplinary team. The focus of public health intervention is to prevent rather than treat a disease through surveillance of cases and the promotion of healthy behaviors.
At present, MDS Sections K (Oral/Nutritional Status) and L (Oral/Dental Status) require an oral health assessment, including a decision on whether a resident is able to perform his/her own oral hygiene regimen without assistance. If not, a care plan must be developed to have it done. Quality of life suffers when oral disease is present because of the resulting pain, speech limitations, reduced sense of taste, increased chewing complications, low self-esteem, and reduced socialization.

Aides are trained to assist and/or monitor a resident's oral hygiene and dedicated to providing good care. However they are not always comfortable with this service. A poorly cared for mouth can be intimidating and repulsive. Consequently, oral care, may be addressed, but is not necessarily being provided correctly or confidently in the nursing home. By enlisting the services of a registered dental hygienist as an oral health liaison for the facility, the outcome can greatly improve.

These services can help make up for an important gap in third-party reimbursement. Medicare does not cover routine dental care, and coverage is optional for individual state Medicaid programs. In Florida where dental care is reimbursed, Medicaid covers the cost. A growing number of facilities are enlisting the services of these oral health practitioners. Florida's Dental Practice Act was adopted to establish standards for dentists and dental hygienists practicing in the state. Laws vary greatly from state to state.

Once licensed the dental hygienist may perform remediable tasks under general supervision within the limits of her license, allowing her to provide certain dental services in skilled nursing facilities without being accompanied by the dentist. Dental Hygienist are trained to visually inspect all oral tissue to include the lips, tongue, cheeks, palate, and floor of mouth for anything suspicious every time they enter the oral cavity. Early detection of oral cancer is often possible.
Tissue changes in the mouth that might signal the beginnings of cancer often can be seen and felt easily. The need for a biopsy may be determined. A thorough head and neck examination should be a routine part of each patient's dental examination. With resident's residing in long term care facilities, clinicians should be particularly vigilant in checking those who use tobacco. Tobacco use increases the risk of oral cancer. Initial dental screening determines the need and resident acceptance of professional dental care. A visual examination is done to identify any abnormalities around the face or head, any suspicious lesions in the oral cavity, and the presence of dental disease, plaque and calculus.

Comprehensive oral evaluation includes full mouth x-rays and determines the severity of disease. The goal is to obtain an individual radiographic picture of every tooth. This will show bone loss, level of decay, calculus below the gingival margin, and any abnormal periapical changes at the tooth’s root tip. The x-rays are accessible only to the point a resident can tolerate the procedure. This appointment is done with the Dentist to determine the diagnosis of an appropriate treatment plan for the Dental Hygienist to provide the patient. The dentist will examine the medical records to access the need for any premedication, consult with the physician about anticoagulant therapy, allergies, and any other condition that may be a deciding factor as to treatment in restoring the residents’ dental health. At this time the dentist can determine which products the hygienist will use to best treat the resident needs. These products may include, MI Paste, Fluoride Varnish, Fluoride Rinse, Antimicrobial Rinse, and Xylitol products, all based on individual resident needs. The ingredients found in many of the fluorides, varnishes and Xylitol products are designed to promote salivary flow, decrease sensitivity, and slow down the bacterial growth in the oral cavity. Healthy saliva contains the minerals needed for healthy teeth: Calcium, phosphorus, and fluoride are the minerals needed to maintain healthy teeth; these minerals can be found in healthy saliva.
After a thorough comprehensive examination by the dentist, the hygienist should start the mechanical removal of the harmful plaque, calculus and free floating bacteria that results in dental disease. The hygienist may use a combination of hand and ultrasonic instrumentation. This may take several appointments. The resident’s tolerance and comfort are taken into consideration when determining the extent and duration of the visit. If the resident wears any removable prosthesis, the appliance should be removed each visit and ultrasonically cleaned to remove the same harmful bacteria that contributes to dental disease on natural teeth. Dentures and/or partials are a breeding ground for toxic bacteria that when swallowed can lead to pneumonia, cardiovascular disease, pancreatic cancer and several other systemic conditions that are serious concerns for the older immuno-compromised patient.

Polishing with a rotary instrument is effective in removing stain, and smoothing the enamel surfaces of the teeth. A rotary instrument may also be used for application of MI Paste, Fluoride gels and other oral infection control products.

Oral Hygiene Instruction should be reviewed with the residents continuously. Demonstration of effective techniques for using adjunctive products should also be given to the residents and their direct care providers to help ensure compliance in daily care.

In an effort to stop the progression of periodontal disease the hygienist should visit the resident on a routine bases to remove any bacterial accumulation, check tissue for bleeding with the use of a probe, and reapply infection control products. Harmful bacteria can begin to colonize in 24 hours and by 30 days in enough numbers to produce disease.

In-Service training for the staff at regular intervals is imperative. Historically there has been a high turnover rate of staff within skilled nursing facilities. Because of this turnover, particularly among direct care staff, it is imperative that the hygienist consistently provide staff with
in-service training relevant to the goal of patient care. In-Services are defined as direct care personnel meeting with the hygienist to review clinical or operational programs. Direct care personnel are CNA, RN, or a provider of another specialty. One of the most efficient ways to foster good relationships with the care staff is to provide useful and relevant in-service training. This is an excellent opportunity to explain and have a better understanding of the importance and the clinical benefits of a dental hygiene program. The goal is to motivate them to help residents with daily compliance, and educate them in their thinking about the harmful effects of bacteria in the mouth. Many have never considered it as wound care, and that debris left in the mouth harbors e-coli, s. pneumonia, and h. influenza. The idea that they may be growing out a culture ready for aspiration is nowhere in their mind. That is understandable, they are not dental professionals.

Regular consistent communication with the family is important for the hygienist to establish. As a professional relationship develops with the resident, it should also evolve with the family. The hygienist may want to provide contact information, and assure the families that their input is welcome and valued.

Oral prevention care programs should be designed to mitigate the long term effects from the lack of regular oral hygiene treatment, reducing disease and infection. It is a dental solution to a medical problem.

Footnotes:
3 American Dental Hygienists' Association, Standards For Clinical Dental Hygiene Practice, 2008; (http://www.adha.org/downloads/adha_standards08.pdf)
PROVIDING DENTAL CARE SERVICES IN LTC SETTINGS

Portable Dental Equipment

There is an ever-increasing need to provide oral health care to populations that have difficulty gaining access to the traditional dental care delivery system. These groups include a variety of people with special needs such as those who reside in residential facilities or are homebound, people who live in isolated areas or where there are no dental offices or children who don’t have regular access to preventive services. Developments in mobile/portable dental system technologies have produced a variety of effective options for dental professionals to serve people outside a traditional fixed location dental office or clinic.

Portable equipment is used to provide oral health services, especially preventive services, to specific population groups or persons who cannot easily access a fixed facility or mobile clinic, e.g., someone who is homebound or in a residential care facility. In recent years, the quality and portability of dental equipment has improved dramatically such that most routine dental procedures...
required by the nursing home population can indeed be provided on site, without lose of comfort for
the resident nor productivity for the dental provider. Portable equipment allows for a great deal of
mobility, taking services to patients in their own community or setting. It is relatively inexpensive to
purchase, does not require special utilities or construction to operate, is easily transported by car or
other vehicle, and is quick to set up and take down.

Portable dental equipment ranges from units under 60lbs., mid-range units up to 100lbs.
and self-contained (water/air sources and waste collection) units and carts. Determining the type of
portable equipment to use should be based on:

• The physical environment of the site (e.g., space considerations and
electric/water availability)
• The range of dental procedures that will be provided
• The size and weight of equipment based on the capability of the staff that
  will transport and set-up equipment
• Cost

Portable systems are generally characterized as being smaller and more
compartmentalized than mobile vehicle systems. Ease of transportability, time efficiencies, and
relative lower equipment and overhead costs may represent substantial advantages when
considering a portable system over a mobile van. Portable equipment provides flexibility to
assemble varying configurations to provide a separate mix of services such as:

• Dental screenings/examinations
• Preventive procedures such as dental sealants or dental hygiene
treatment
• Denture care
• Restorative care
• Oral surgery

Mobile Dental Unit

A mobile dental facility is used primarily when oral health care is to be delivered to small pockets of patients that are scattered over a specific geographic area. The mobile clinic generally is parked at a facility such as a school, residential facility or community center.

Mobile clinics can be either:

• A self-contained motorized van driven by clinic staff or a hired driver to different locations
• A trailer that is hauled or towed by a truck to a location

Although the initial cost is not as much as a fixed facility, maintenance costs are higher. This is especially true for a motorized van due to maintenance of the drive train. Useful life is shorter than a fixed facility. Both units require utility, water and sewage connections at each location where used. In cold weather, precautions must be taken to prevent freezing of the water lines.

A van or trailer may consist of one or more operatories, depending on the size. Equipment can be traditional dental equipment found in a fixed clinic facility or portable equipment. The use of portable equipment can allow for multiple program uses of the van (e.g., dental care and immunization clinics). Vans and trailers provide climate control for a comfortable work
environment. Most offer utility service attachments which allow on-site hookup. Additional considerations may be:

- Generator on board to provide electricity
- Telephone/computer hookup
- Wheelchair lift

Services using a mobile vehicle or portable equipment can be provided as a private practice or an extension to a private practice, or using various public health models. Mobile/portable dental systems can serve as dental "safety net" programs for people who lack the resources to acquire those services on their own. Safety net programs usually are administered by agencies such as community health centers, dental schools, hospitals, non-profit associations or health departments. Public health approaches lend themselves to providing services in settings such as schools, Head Start centers, senior centers or homeless shelters.

**FUNDING FOR DENTAL CARE FOR LTC RESIDENTS**

Prior to 2009, dental care provided in long-term care facilities was funded by fee-for-service, dental insurance plans, the Medicaid adult dental program and to some extend Medicare Advantage Plans. In the last two years, private dental insurance plans for nursing home residents funded by Medicaid Unreimbursed Medical Expense Deductions (UMED) received authority to operate in Florida by the office of insurance regulation.

Under the fee-for-service payment method the resident pays the dentist directly for oral health care services provided in a private office or LTC facility using portable or mobile equipment. This method of payment is usually cash or credit card or if the person has a Flexible Spending Account (FSA), Health Savings Account (HSA) or Health Reimbursement Arrangement (HRA) the fee for service can be funded through these consumer-driven health plan models.
A second method of reimbursement is from an individual or group dental plan. An insurance carrier or third party administrator pays the plans portion of the dental coverage and the resident pays any co-insurance or co-payment to cover the dentist’s fee in full. Florida group plans are usually offered as traditional indemnity products, Preferred Provider Organizations (PPOs), Dental Health Maintenance Organizations (DHMOs), and Prepaid Limited Health Service Organizations (PLHSOs).

The American Association of Retired Persons provides the major individual issue dental insurance plan for its members administered by Delta Dental Insurance Company. It is a dental PPO which gives the patient the freedom to choose a licensed dentist from a large provider network offering care at a reduced fee or use a non-network dentist and pay a higher fee.

Nursing home residents can also purchase dental care coverage from dental referral plans, commonly referred to as discount dental plans, by joining and paying a membership fee. These types of plans are not insurance. These types of plans provide highly reduced fees for certain advertised procedures for members who choose from a list of participating dentists who agree to only charge the advertised fees. This plan does not make payments directly to the providers of the services. The plan member is obligated to pay for all dental services but will receive the advertised discount from the participating dentist who contracts with the referral plan organization.

Referral plans also do not have any annual limits, nor do they carry any deductibles. Instead, enrollees pay a low membership fee per month and when they need dental services go to a participating dentist, present an ID card and pay the reduced fee-for-service.
If the person is eligible, there are limited dental services available for adults under the Medicaid dental plan. These services would include emergency care and oral surgery procedures leading up to the placement of a full or partial denture. Reimbursable dental services for adults are limited to emergency services rendered to alleviate pain or infection:

- Problem-focused oral exam;
- Necessary radiographs to make a diagnosis;
- Extractions;
- Incision and drainage of an abscess; and
- One set of dentures

Medicaid eligibility in Florida is determined either by the Department of Children and Families (DCF) or the Social Security Administration (for SSI recipients).

On Jan 1, 2004 the Agency for Health Care Administration (AHCA) amended the Medicaid state plan allowing ICP Medicaid recipient’s a deduction in the calculation of patient responsibility for medical/remedial care expenses an individual incurs that are not subject to payment by a third party. The expenses are deducted only after allowing for the individuals own personal needs. The expenses for medical services must meet all of the following criteria to be recognized and used in the patient responsibility computation: Recognized under state law, medically necessary, not a Medicaid compensable expense, not subject to payment by a third party and not covered by the Medicaid nursing or other facility per diem. Thus, UMED was conceived (Unreimbursed Medical Expense Deduction).
Through the development of UMED funding, two new dental insurance programs have received their certificate of authority to operate in Florida. These new programs are The Senior Oral Health Insurance Protection Plan and the Special Care Insurance Program.

To assist long-term care facilities in delivering professional oral care to their residents, Senior Dental Insurance Solutions, LLC, offers The Senior Oral Hygiene Insurance Protection Plan. The services are provided by dentist and dental hygienists who provide professional oral care to the elderly. All services are provided on-site in the facility which eliminates the cost of transportation. Every policy holder is entitled to monthly visits from the provider.

The Senior Oral Hygiene Insurance Protection Plan has no deductibles, no co-payments and no waiting periods for services. If the senior receives Medicaid support, the premium for the insurance may be 100% reimbursable. There are no additional pharmaceutical or product cost involved.

The program’s goal is to promote and improve oral hygiene among the aging population in skilled nursing home facilities, resulting in better overall health and well being for all seniors. The schedule of benefits is focused on proactive preventive care and addresses the un-met oral hygiene needs of those requiring long-term care. It is designed to mitigate the long term effects from the lack of regular oral hygiene treatment, in turn reducing disease and infection.

Fidelity Security Life Insurance Company underwrites The Senior Oral Hygiene Insurance Protection Plan. Group Benefit Services (GBS) is a national Third Party Administrator that provides administrative and management services for health and dental insurance programs. They
provide enrollment, premium billing, and customer service for The Senior Oral Hygiene Insurance Protection Plan.

Rates compare to a service delivery schedule submitted by the underwriter to the state for services, based on national Code of Dental Terminology. Each code represents a description of service. The negotiated rate between the insurance company and the Florida Department of Insurance is $205.13 per month.

SDIS works with Department of Children and Family (DCF) to enroll residents with the available liability to qualify for reimbursement. Once approved the facility and the responsible party are issued a notice of case action by the state which reduces the resident liability by $205.13 per month, in order to pay the monthly premium. If a resident does not qualify for Medicaid reimbursement they may pay privately at the same rate with the same coverage. As mentioned this program is all inclusive and the resident is seen monthly to provide the services included with this benefit. There are no other claims to file. SDIS will continue to renew coverage as long as the premiums are paid. Should a resident wish to cancel the coverage, SDIS must be notified in writing and coverage will end on that date. The application for coverage is between the president’s legal responsible party and SDIS. No service begins before the Case Action Letter is issued by the state. The facility is in no way held fiscally responsible should the claim be denied.

Approximately 180 Florida nursing homes with 3,000 residents are enrolled in this program. This insurance program is voluntary for any nursing home resident enrolled as a Medicaid eligible. Up until last year, the program used only portable dental equipment to provide dental and dental hygiene services to enrollees. Employees of OnSite have to purchase this equipment from a company vendor.
Following on OnSite's dental insurance plan idea, the TRECS Institute, through Elan Group out of Tampa, also received a Certificate of Authority to offer its Special Care Insurance Program plan to nursing home residents paid for by UMED (e.g. Medicaid Offsets). The carrier for this plan is National Guardian Life. Its premium is $74 a month for enrollees who are also Medicaid eligibles. This plan uses the Reach Out Health Care America dentist mobile dental network to provide care.

Besides the major methods of reimbursement for dental care listed above, the federal Medicare program may provide limited dental coverage which are deemed medically necessary, such as a dental exam prior to kidney transplantation or heart valve replacement, or extractions performed in preparation for radiation treatment involving the jaw or jaw reconstruction following accidental injury. Medicare will cover the costs of hospitalization and the dentist's treatment fee, for some dentistry-related hospitalizations; for example, if you develop an infection after having a tooth pulled or you require observation during a dental procedure because you have a health-threatening condition.

Medicare does not cover routine dental care or most dental procedures such as cleanings, fillings, tooth extractions or dentures. Medicare does not cover any dental care specifically excluded from original Medicare (i.e., dentures), even if you are in the hospital.

A Medicare Advantage Private Fee-for-Service plan works differently than a Medicare supplement plan. The doctor or hospital is not required to agree to accept the plan's terms and conditions, and may choose to forgo treatment, with the exception of emergencies. Some Medicare Advantage plans may include dental benefits.
The Medicare Prescription Drug, Improvement, and Modernization Act of 2003, have created incentives for Medicare-managed plans (not subject to the strict regulations of Medicare itself) to offer enhanced dental benefits. Dental coverage is available at low, or sometimes no, cost to Medicare-eligible seniors who join a Medicare-sanctioned, state-regulated fee-for-service plan that provides dental and medical assistance. Known as Medicare Advantage plans, they are run nationwide by private health insurers in compliance with federal guidelines.

Medicare Advantage Plans allow you to select optional dental coverage benefits for an additional plan premium allowing you to receive covered dental services when you select a participating primary care dentist. Most often reduced-fee services must be provided by your selected primary care dentist and are not eligible for out of network benefits.

Dental plan members can choose from a large network of qualified providers. Some plans are flexible to the extent that you may choose any provider. Optional services (riders) are available to health plan members for an additional monthly premium, though not all optional services are available in all areas. Consult your Medicare Advantage plan to see what dental services are covered.

Medicare Advantage dental benefits vary among providers. Some have monthly premiums and an initial enrollment fee. Others have a co-payment for office visits and an annual dollar cap.

**CONCLUSIONS**

The Oral Health Florida Coalition senior work group has come to the basic similar conclusions outlined in the TRECS Institute's final report, titled: *Improving Dental and Oral Care Services for*
Nursing Facility Resident, released on January 20, 2006. Through its studies, the senior workgroup confirmed universal concerns over the availability and quality of dental care services to Florida’s nursing facility residents. These major findings are:

#1. A pervasive lack of knowledge of the importance of dental and oral health care on the part of residents, their families and the nursing facilities staff.

#2. Difficulties faced by some residents in providing self care due to physical limitations despite the desire to maintain good oral health and the desire to remain independent.

#3. Providing good daily oral care to residents with dementia and/or behavioral problems can be extremely difficult for staff despite good intentions and efforts.

#4. Ageism prejudices are overtly evident among staff, families and even the residents themselves.

#5. A lack of or severely limited reimbursement for professional dental services resulting in significant access problems.

#6. Extremely poor dental and oral health care is currently being seen among the cohort of elderly between the time they retire and their admission to a nursing facility, resulting in new nursing home residents with tremendous dental and oral care needs upon admission.

To help resolve these issues, the following conclusions were agreed upon by the advisory Board:

#1. There is a profound and basic need to develop a program to educate all cohorts including residents, family and health care professionals on the importance of good dental and oral care for the elderly.
#2. Long-term care professionals should implement a preventive oral screening program consisting, not only of entrance examinations but also routine (daily) preventive care, with special training of staff for challenging patient types.

#3. A recently developed commercial dental insurance program designed specifically for nursing home residents, should be tested as a realistic approach to improving dental care services by increasing reimbursement for dental professionals thereby eliminating the access problem that dominates the industry today.

With the advent of the two new dental insurance programs and support from the Oral Health Florida Coalition stakeholders for a program similar to the Apple Tree model in Minnesota, there is hope that in the future as more of Florida’s citizens become residents in long-term care facilities that oral health care services will be come more readily available. This, however, will also take a concerted effort between the coalition stakeholders, the Florida legislature, government agencies and the new administration taking office in 2011.