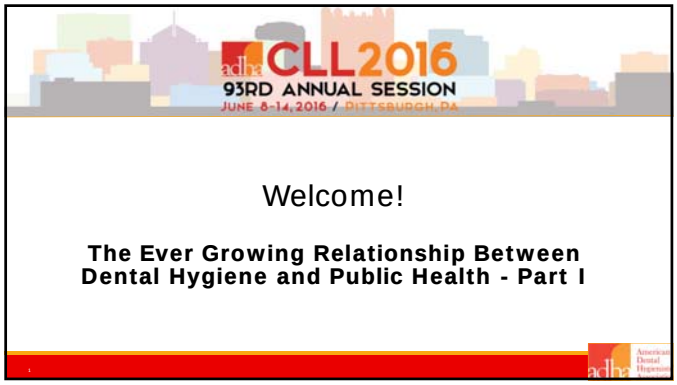
CE Course Handout

The Ever Growing Relationship Between Dental Hygiene and Public Health - Part I

Friday, June 10, 2016
10:00 a.m.-1:00 p.m.



Welcome!

The Ever Growing Relationship Between Dental Hygiene and Public Health - Part I

SCHOOL OF MEDICINE

Christine Nathe, RDH, MS
Professor and Director
Division of Dental Hygiene
Vice Chair
Department of Dental Medicine
cnathe@salud.unm.edu

Course Discussion

- Evolution of dental hygiene science and practice
- Impact of societal changes and trends
- Societal values of dental health

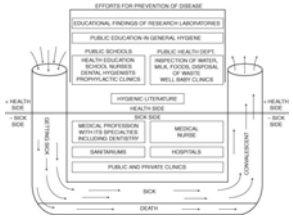
Evolution of Dental Hygiene

INFLUENCE ON DENTAL PUBLIC HEALTH

Historical Perspective

The First Dental Hygiene College Textbook
Mouth Hygiene

Fones, A. C. *Mouth Hygiene*, 3d ed. Philadelphia: Lea & Febiger, 1927.



Fones' Thoughts

Infections of dental origin may be accompanied by serious systemic symptoms
~Hippocrates

The work of the dental hygienist is most important in the prevention of the systemic infection through the avenue of the mouth

Fones' Thoughts

Hundreds of millions of dollars in public and private funds are expended to restore the sick to health, but only a relatively small portion of this amount is spent to maintain the health of well people, even though it is definitely known that the most common physical defects and illnesses are preventable (1916 – Dr. Alfred Fones)

Fones' Thoughts

The dental hygienist was created From the realization that mouth hygiene was a necessity and that the average dental practitioner could not give sufficient time to it and that the toothbrush alone would never produce

Fones' Thoughts

An immense corps of dental hygienists, who can work in

- public schools
- dental offices
- infirmaries
- public clinics
- sanitariums
- factories
- other private corporations

Fones' Thoughts

Here at the gateway of the system is a source of infection and poison that would contaminate every mouthful of food taken into his body, no wonder that the child suffers from an auto-intoxication which produces eye-strain, anemia, malaise, constipation, headaches, fevers and many other ailments

Interestingly, medical inspectors in public schools find that decayed tooth outrank all other physical defects combined

Fones' Thoughts

If otherwise, a ten year old boy's body appears normal we ask him open his mouth. Here we find teeth covered with green stain; temporary and permanent teeth badly decayed, possibly fistulas on the gum surface showing an outlet for pus from an abscessed tooth or teeth and decomposing food around and between the teeth

Fones' Drive

In 1921, Bridgeport's board of education voted to require a definite physical standard from every school child, and after conferences with the Connecticut Department of Health, adopted resolutions that included dental standards

The Resolution stated: that all school children

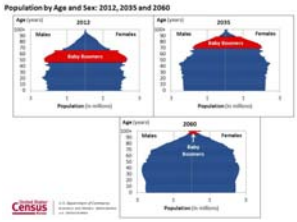
- (a) [have] certification from the dental hygienist that there are no cavities in the permanent dentition
- (b) that the pupil has demonstrated effectively the use of the toothbrush to remove food debris and to keep the gums in a state of health and
- (c) that the teeth and gums are in a clean and healthful condition

Societal Changes

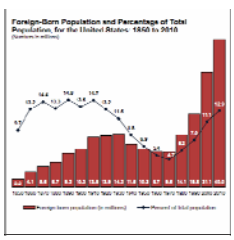
INFLUENCE ON DENTAL PUBLIC HEALTH

Societal Changes

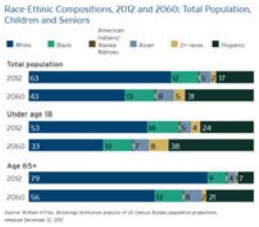
Societal Changes



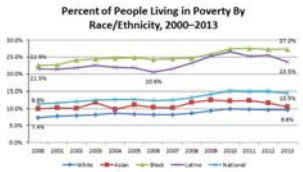
Societal Changes



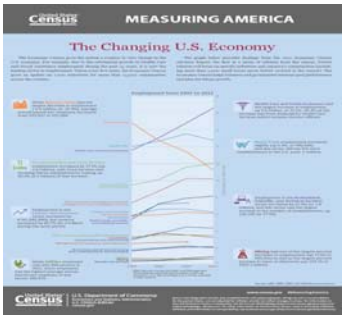
Societal Changes



Societal Changes

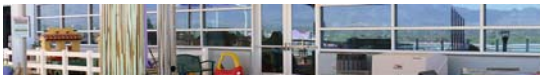


Societal Changes



Societal Changes

- Healthcare Systems



22

Reported Trends

INFLUENCING DENTAL PUBLIC HEALTH

23

Dental Caries and Sealant Prevalence in Children and Adolescents in the United States, 2011–2012 NCHS Data Brief 191 (2015)

- Approximately 23% of children aged 2–5 years had dental caries in primary teeth
- Untreated tooth decay in primary teeth among children aged 2–8 was twice as high for Hispanic and non-Hispanic black children compared with non-Hispanic white children
- Among those aged 6–11, 27% of Hispanic children had any dental caries in permanent teeth compared with nearly 18% of non-Hispanic white and Asian children
- About three in five adolescents aged 12–19 had experienced dental caries in permanent teeth, and 15% had untreated tooth decay
- Dental sealants were more prevalent for non-Hispanic white children (44%) compared with non-Hispanic black and Asian children (31% each) aged 6–11

24

Dental Caries and Tooth Loss in Adults in the US, 2011-2012, NCHS Data Brief 197 (2015)

- Among adults aged 20–64, 91% had dental caries and 27% had untreated tooth decay
- Untreated tooth decay was higher for Hispanic (36%) and non-Hispanic black (42%) adults compared with non-Hispanic white (22%) and non-Hispanic Asian (17%) adults aged 20–64
- Adults aged 20–39 were twice as likely to have all their teeth (67%) compared with those aged 40–64 (34%)
- About one in five adults aged 65 and over had untreated tooth decay
- Among adults aged 65 and over, complete tooth loss was lower for older Hispanic (15%) and non-Hispanic white (17%) adults compared with older non-Hispanic black adults (29%)

25

Update on prevalence of periodontitis in adults in the United States: NHANES 2009 to 2012. Journal of Periodontology (2015)

- High prevalence of periodontitis in US adults aged ‡30 years, with almost fifty-percent affected
- The prevalence was greater in non-Hispanic Asians than non-Hispanic whites, although lower than other minorities
- Prevalence varied two-fold between the lowest and highest levels of socioeconomic status, whether defined by poverty or education

26

State of Decay: Are Older Americans Coming of Age without Oral Healthcare. Oral Health America (2013)

- Although children are making strides with dental coverage, there have been no successful efforts to increase funding for older adults dental insurance
- And not surprisingly, dental insurance coverage is a primary indicator of whether or not an individual visits the dentist
- This is even more important to note, when close to 70% of older Americans do not have dental insurance
- The Affordable Care Act does not address dental coverage for older Americans

27

An Analysis of Dental Spending Among Adults with Private Dental Benefits. ADA HPI. May 2016

- More than one in three adults ages 19 through 64 with private dental benefits do not have a single dental claim within the year
- Fees paid to dentists through private dental benefits plans are significantly lower than market fees. This leads to substantial differences in total dental spending estimates based on "market" versus "actual" fees
- For the majority of adults, total copayments, coinsurance and premiums exceed the "market" value of dental care

Gap in Dental Care Utilization Between Medicaid and Privately Insured Children Narrows, Remains Large for Adults. ADA (2015)

- Dental care utilization among Medicaid-enrolled children increased between 2005 and 2013. This resulted in a significant narrowing of the gap in dental care utilization between Medicaid-enrolled children and children with private dental benefits
- Most states experienced a drop in dental care utilization among adults with private dental benefits between 2005 and 2013. In contrast, most states saw an increase in dental care utilization among children with private dental benefits
- While dental care utilization for Medicaid children continues to "catch up" to children with private dental benefits, a very large gap remains among adults

Dental Services Information on Coverage, Payments, and Fee Variation. GAO Report (2013)

- Based on the Institute of Medicine reports (2011) that there is strong evidence that dental coverage is positively tied to access to and use of oral health care→
  - trends in coverage for, and use of, dental services
  - trends in payments by individuals and other payers for dental services
  - the extent to which dental fees vary between and within selected communities across the nation

Dental Services Information on Coverage, Payments, and Fee Variation. GAO Report (2013)

- The use of dental services, which is described by the percentage of individuals who had *at least one dental visit*, also remained relatively unchanged at around 40 percent from 1996 to 2010
- Although the use of public coverage increased, the children with public coverage, still visited the dentist less often than privately insured children

Dental Services Information on Coverage, Payments, and Fee Variation. GAO Report (2013)

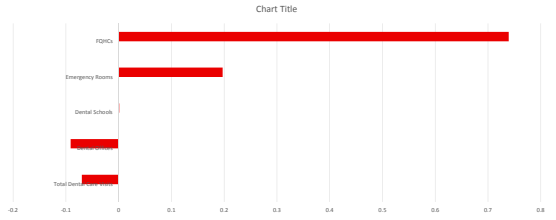
- The percentage of the population with private dental coverage decreased from 53% to 50% from 1996-2010
- Public coverage for dental care, via Medicaid and the State Children's Health Insurance Program (CHIPS) increased from 9%-13%
- This increase was attributed to the increase in the number of children covered by these federal-state health programs

Dental Services Information on Coverage, Payments, and Fee Variation. GAO Report (2013)

Among individuals who reported having a dental visit from 1996-2010

- An increase was seen in the percentage reporting that they received diagnostic and preventive services (exams and cleanings)
- A decrease was seen in those reporting that they received other services, such as restorative services (fillings)

Vujicic, M *Where have all the dental care visits gone?* JADA (2015)



34

Physicians Dissatisfied with Current Referral Process to Dentists. ADA HPI. March 2016

- Physicians reported they were
  - dissatisfied with the referral system to dentists
  - the coverage of dental care services for patients
  - their ability to distinguish a worrisome oral lesion from a variant of normal
- More than half of worrisome lesions were referred to physician specialists instead of dentists specifically due to the lack of a referral system
- Efforts to improve the referral system to dentists, facilitate the creation of an electronic referral system, and promote dental education for physicians could increase both physician and dentist satisfaction and the quality and efficiency of care for patients

35

Dental Care Within Accountable Care Organizations: Challenges and Opportunities. ADA HPI (March 2016)

- Most accountable care organizations (ACOs) are not responsible for dental care as part of their ACO contract. Nine percent of the largest commercial contracts and 25 percent of Medicaid contracts hold providers responsible for the cost and quality of dental services
- The top reason ACOs report for excluding dental care is a lack of integrated health information technology. The perceived potential for cost savings associated with dental care is the top motivation among ACOs that include or plan to include dental care
- Despite research suggesting that integration of dental care may benefit patients, financing and delivery of dental care remains disconnected from other health services, even among ACOs working to improve overall population health. Integration of dental care may present an opportunity for improved accountability for total health, yet to date, there is little incentive for ACOs to facilitate access to these services

36

Emergency Department Visits for Dental Conditions Fell in 2013. ADA HPI (2016)

- The number of emergency department (ED) visits for dental conditions in the United States fell from 2012 to 2013, the first decline since the early 2000s
- There were per-capita declines among all age groups except adults ages 50 to 64. The largest per-capita decline was among young adults ages 19 to 25
- Looking forward, there are substantial opportunities to reduce ED visits for dental conditions through targeted referral programs and enhanced coverage for preventive dental services among vulnerable populations

A Profession in Transition Key Forces Reshaping the Dental Landscape. ADA Environmental Scan (2013)

- Dental care utilization among children has increased steadily in the past decade, a trend driven entirely by gains among poor and near-poor children
- The percent of children who lack dental benefits has declined, driven by the expansion of public programs
- Average dentists net income declined considerably beginning in the mid-2000s
- Two out of five dentists indicate they are not busy enough and can see more patients

A Profession in Transition: Key Forces Reshaping the Dental Landscape. ADA Environmental Scan (2013)

- Dental care utilization among children has increased steadily in the past decade, a trend driven entirely by gains among poor and near-poor children
- The percent of children who lack dental benefits has declined, driven by the expansion of public programs
- Average dentists net income declined considerably beginning in the mid-2000s
- Two out of five dentists indicate they are not busy enough and can see more patients

Critical Trends Affecting the Future of Dentistry: Assessing the Shifting Landscape. ADA Commissioned Report (2013)

- Changing demographics are resulting in changes in disease patterns, care-seeking behavior and the ability to pay
- Payments for dental services are shifting from commercial dental insurance to public coverage and personal out-of-pockets payments

40

Critical Trends Affecting the Future of Dentistry: Assessing the Shifting Landscape. ADA Commissioned Report (2013)

- Mounting pressure for expanded dental team providers
- An increase in dental school graduates *and* the increasing student debt of graduating dentists
- Changing demographics of dentists, which in combination with these aforementioned factors, is altering the practice choices for new dentists

41

The Role of Dental Hygienists in Providing Access to Oral Health Care. National Governor's Association (2014)

- Focused on the variations in policies affecting dental hygienists
- Expanding the settings where dental hygienists can provide care was discussed as well as expanding procedures that dental hygienists may provide to patients
- Another area addressed focused on the variations in supervision of dental hygienists in states

42

Healthy People 2020

- Increase awareness of the importance of oral health to overall health and well-being
- Increase acceptance and adoption of effective preventive interventions
- Reduce disparities in access to effective preventive and dental treatment services

U.S. Department of Health and Human Services Oral Health Strategic Framework, 2014–2017

- Integrate oral health and primary health care
- Prevent disease and promote oral health
- Increase access to oral health care and eliminate disparities
- Increase the dissemination of oral health information and improve health literacy
- Advance oral health in public policy and research

Transforming Dental Hygiene Education and the Profession for the 21st Century. ADHA. (2015)

- ADHA's National Dental Hygiene Research Agenda
- Learning from others
- IPE
- Future Providers
- Role of Dental Hygiene Education
- Development New Domains and Competencies
- Pilot Programs

Societal Values

INFLUENCING DENTAL PUBLIC HEALTH

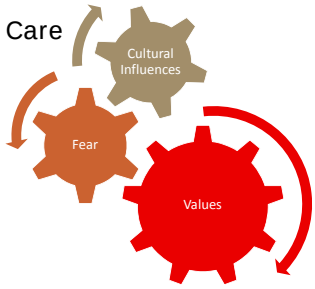
Oral Health in America

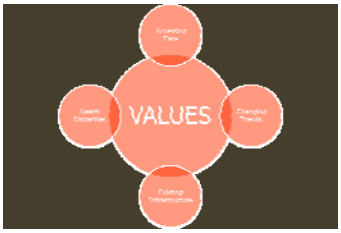
- Effects of poor oral health are disproportionate to race, income and age
- All populations are susceptible to oral disease, some more than others
- Most will at some point experience oral disease

Accessing Dental Care

Access to Care	•Barriers
Accessing Care	•Coverage
Dental Care Seeking Behaviors	•Solutions

Barriers to Care





Values → Long Term Endeavor → True Transformation

Promotion of Dental Hygiene
Collaboration with Dentistry
Positioning within Health and Social Systems
Populations positivity about Dental Hygienists

Professional Socialization

Dental hygienists must develop professional socialization skills, there must be greater networking among dental hygienists and increased collaboration within…

Source: *Focus on Advancing the Profession* ADHA. 2005.

Professional Socialization

- Strength in Numbers
- Revenue Increases
- United Populations
- Power → Voice

Professional Socialization

- Priority for Dental Hygienists
  - Unification
  - Societal Trust
  - Americans Value Education
  - First →Educate Ourselves

Dental Hygiene Enrollment

Program	Year	Student Enrollment
Entry-Level Certificate/Associate's/Bachelors	2007	5,825
	2013	7,211
Bachelor's Degree Completion	2007	518
	2013	630
Master's Degree	2007	49
	2013	178

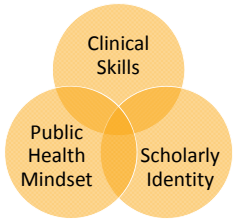
Dental Hygiene Salary/Educational Levels

Current Highest Level of Education	Mean Full-time Salary	Number of RDHs
Certificate/Diploma	$53,741	54
Associate Degree	$54,315	1,368
Bachelor's Degree	$58,105	658
Master's Degree	$59,276	116
Doctoral	$61,313	16
Other	$64,375	16

Dental Hygiene and Dental Public Health Ever-growing Relationship

INFLUENCE ON DENTAL PUBLIC HEALTH

Dental Hygienist Skill Set for the Future



Public Health Mindset

DENTAL HYGIENE SKILL SET

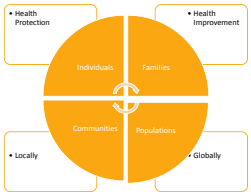
Public Health Defined

The goal of public health is to protect and promote the health of the public across three essential domains

Health Protection → Disease Prevention → Health Promotion

Source: World Health Organization

Public Health Defined



Source: Association of Schools and Programs of Public Health

41

Public Health Services

- Monitor health status to identify community health problems
- Diagnose and investigate health problems and health hazards in the community
- Inform, educate, and empower people about health issues
- Mobilize community partnerships to identify and solve health problems

42

Public Health Services

- Develop policies and plans that support individual and community health efforts
- Enforce laws and regulations that protect health and ensure safety
- Link people to needed personal health services and assure the provision of health care when otherwise unavailable

43

Public Health Services

- Assure a competent public health and personal health care workforce
- Evaluate effectiveness, accessibility, and quality of personal and population-based health services
- Research for new insights and innovative solutions to health problems

Public Health Defined

- Public health is people's health
- Concerned with the aggregate health of a group:
  - Not limited to the health of the poor, nor a particular service, nor a particular problem
  - Not defined by payment sources nor specific agencies
- It is simply a concern for and activity directed toward the improvement and protection of the health of a population

Dental Public Health

The science and art of preventing and controlling dental disease and promoting dental health through organized community efforts

Dental Public Health

- Basically, it is the delivery of oral health care, research and education, with an emphasis on the utilization of the *dental hygiene sciences*, to a target population

Dental Hygiene is Public Health

Frankly, it shouldn't be difficult to identify possible settings of public health if the definition of public health were truly understood. Public health is dental hygiene. Moreover, dental hygiene, as a discipline, is the perfect example of public health science and practice. We must begin educating others and ourselves about our influence and potential impact on the public's health.

Source: Nathe, *RDH.* November 2015

Scholarly Identity

DENTAL HYGIENE SKILL SET

Dental Hygiene Scholarship

Society has a right to dental hygiene care provided by professionals who possess a substantial theoretical foundation for exercising judgment and improving oral health care (Darby)

70

Dental Hygiene Scholarship

One characteristic of a profession is its ability to develop and validate a body of knowledge that is unique to itself → So the key focus of research should be the development and validation of its knowledge and practice (Darby)

71

Dental Hygiene Scholarship

A profession's research efforts are closely linked with its service role and responsibility and accountability to the public; therefore, practice can only be as good as the research and theory base that supports it (Darby)

72

Scholarly Identity

- Has a sense of the dental hygiene discipline as a whole
- Has a lifelong commitment to the development of the dental hygiene discipline's knowledge base by asking and answering research questions central to the discipline
- Uses evidence to support one's viewpoint
- Considers the related work of other dental hygiene scholars as well as that of other disciplines
- Reports one's own results in the context of those of others in the field and beyond
- Disseminates the findings of one's work through scientific publication

(Source: Walsh and Ortega. *JDH* 2013.)

Profession Defined

"Profession" is linked to

- Prestige
- Credibility
- Image
- Autonomy
- Service
- Scientific theoretical base

(Source: Bowen. *JDH* 2013)

Prestige and Image?

- Physician's History in America
- Proprietary → Education + Business
- Standard of Practice
- Voice

(Source: Pickett and Hanlon. *Historical Perspectives in Public Health and Administration*, 1990)

Darby and Walsh Models of Dental Hygiene

- Operationalizes the dental hygienist's functioning paradigm
- Addresses the responsibility of the dental hygienist to one's self, the patient, and other professionals
- Potential solution to the crisis of access to dental care

While personality and experience are contributing factors, the formal training a dental hygienist receives will chiefly influence one's tendency towards a specific paradigm

Darby and Walsh Models of Dental Hygiene

Occupational Model

- Based on technical competence of dental hygienist

Professional Model

- Derived from a solid, scientific research base in dental hygiene

Occupational Model

- Mechanical abilities supervised by dentist
- Care provided is routine, uncomplicated, and considered trivial
- Recall appointments are predictable, thus not individualized

Occupational Model

- Paternalistic perspective as dentist is responsible for oral health outcomes
- Practice of dental hygiene is deemed risky if unsupervised
- Organized dentistry assumes responsibility for close regulation and influence on the private and public practice of dental hygiene

Occupational Model

- Ultimately, dental hygienists have little to no ownership of the actions of their care nor responsibility to the patients they are serving

Professional Model

- Research base promotes critical thinking and problem-solving abilities as the dental hygienist uses a process of care system to seek the overall wellness of the patient
- The focus then shifts to a proactive risk assessment and prevention strategy instead of a reactive disease management approach

Professional Model

- Because the dental hygienist assumes personal responsibility to the patient, prevention-oriented care is highly valued and appointments become personalized, based on the need of the patient
- The dental hygienist is considered to be a co-therapist member of the primary care team, and thus is not limited to private clinical practice as the only venue for employment

Professional Model

- By looking beyond clinical practice as the only answer to populations accessing care, the dental hygienist assumes a visionary, proactive role in providing a solution instead of compounding the problem

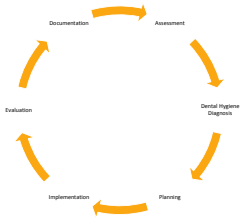
Clinical Skills

DENTAL HYGIENE SKILL SET

Clinical Dental Hygiene

- Skills
  - Psychomotor
  - Decision-Making
  - Communication
  - Curiosity
  - Commitment

ADHA Standards for Clinical Dental Hygiene Practice



Standards for Clinical Dental Hygiene Practice: Professional Responsibilities

- Understand and adhere to the ADHA Code of Ethics
- Maintain a current license to practice including certifications as appropriate
- Demonstrate respect for the knowledge, expertise and contributions of dentists, dental hygienists, dental assistants, dental office staff, and other healthcare professionals
- Articulate the roles and responsibilities of the dental hygienist to the patient, interdisciplinary team members, referring providers, and others
- Apply problem-solving processes in decision-making and evaluate these processes
- Demonstrate a professional image and demeanor

Standards for Clinical Dental Hygiene Practice: Professional Responsibilities

- Maintain compliance with established infection control standards following the most current guidelines to reduce the risks of healthcare-associated infections in patients, and illnesses and injuries in healthcare personnel
- Recognize diversity. Incorporate cultural and religious sensitivity in all professional interactions
- Access and utilize current, valid, and reliable evidence in clinical decision making through analyzing and interpreting the literature and other resources
- Maintain awareness of changing trends in dental hygiene, health and society that impact dental hygiene care

88

Standards for Clinical Dental Hygiene Practice: Professional Responsibilities

- Support the dental hygiene profession through ADHA membership
- Interact with peers and colleagues to create an environment that supports collegiality and teamwork
- Take action to prevent situations where patient safety and well-being could potentially be compromised
- Contribute to a safe, supportive and professional work environment
- Participate in activities to enhance and maintain continued competence, address professional issues as determined by appropriate self-assessment
- Commit to lifelong learning to maintain competence in an evolving healthcare system

89

Clinical Dental Hygiene

90

Transforming the Dental Hygienist