

Virginia Western Community College
DNH 226
PUBLIC HEALTH DENTAL HYGIENE I

Prerequisites

None

Course Description

Studies and compares concepts of delivery of health care, applying the public health delivery model. Utilizes epidemiologic methods, research and biostatistics as applied to oral health program planning, implementation, and evaluation. Incorporates and applies current health issues and trends. Learning experiences will include lecture, PowerPoints, discussion, group activities, and service learning. Lecture 2 hours per week.

Semester Credits: 2 Lecture Hours: 0 Lab Hours:

Required Materials**Textbook:**

Dental Public Health & Research, Author: Christine Nathe Edition: 4th ISBN: 9780134255460

Other Required Materials:

None

Course Outcomes

At the completion of this course, the student should be able to:

UNIT I:

1. Compare and contrast public health care and private dental practice delivery models.
2. Relate the components of the public health care delivery model to the components of dental hygiene care provided to individuals as part of your current clinical practice.
3. Differentiate between primary, secondary, and tertiary prevention.
4. Distinguish between health promotion and health education.
5. Discuss the role of dental public health in the delivery of oral health promotion and disease Prevention services in the public and private sectors.
6. Identify the elements of a public health problem.
7. Relate the unique characteristics of the two most common oral diseases to the elements of a public health problem.
8. Identify factors influencing the adoption of preventive behaviors.
9. Demonstrate familiarity with various definitions of public health.
10. Formulate a personal definition of dental public health.

11. Discuss the roles of international, national, state, and local and voluntary organizations involved in public health promotion and education, public health care delivery, and health care reform.
12. Demonstrate understanding of the interactions between federal, state, and local public health agencies in the delivery of health care in the United States.
13. Discuss the impact of current world and national trends impacting upon health care costs and health care delivery.
14. Describe methods by which major professional associations and interest groups influence health policy.
15. Compare the roles and employment settings of dental hygienists employed in public health in the US and in other countries.
16. Discuss the relationship between access to care and legal restrictions on the supervision of dental hygienists.
17. Differentiate between need, demand, access, and use of health care services.

UNIT II

1. State the rationale for health planning.
2. Relate the steps in the public health care delivery model to program planning.
3. Discuss the different types of planning (problem solving, resource allocation, action plans, etc.) and the role of each in the delivery of public health services.
4. Utilize the program planning process to develop and implement a program/lesson plan for a specific population within the community.
5. Differentiate between survey and analysis.
6. Discuss the advantages and disadvantages of various methods of collecting data on population needs.
7. Identify assessment methods for oral disease activity and health status.
8. Discuss the advantages and disadvantages of various assessment methods.
9. Differentiate between objective and subjective assessment mechanisms as well as objective and subjective evaluation mechanisms, and discuss the role of each in program planning.
10. Given a hypothetical public oral health problem, develop program goals and objectives based on population needs.
11. Given a hypothetical public oral health problem, identify appropriate needs assessment mechanisms for that population and prioritize needs.
12. Identify the human, educational, and fiscal resources necessary for/available for development and delivery of community oral health programs.
13. Define target population.
14. Identify the components of implementation strategies related to program objectives, activities, human and fiscal resources, sequencing, materials and methods.
15. Identify the purposes of program evaluation.

Unit III

1. Define epidemiology
2. Describe the epidemiology of oral diseases and conditions
3. Differentiate between incidence, prevalence, morbidity and mortality as these terms relate to disease and oral diseases/conditions.

4. Know the types and characteristics of descriptive research including survey, case study, case series, cross sectional, cohort, correlational, prospective, retrospective, and longitudinal.
5. Know the Scales of Measurement, Measures of Central Tendency, and Measures of Dispersion.
6. Describe the steps in the scientific method.
7. Develop appropriate research hypotheses when given a research problem
8. Utilize the scientific method in simulated cases to resolve a research problem.
9. Relate the concepts of population, sample, target population and parameters to oral health problems and/or simulated case problems.
10. Explain the methods of obtaining random samples and the advantages associated with random sampling.
11. Explain validity and reliability, and the significance of each to research.
12. Differentiate between internal and external validity, and recognize factors influencing each.
13. Discuss calibration, *inter* and *intra* rater reliability.
14. Compare and contrast single-blind and double-blind study designs.
15. Discuss the significance of a washout period to study design.
16. When given case problems:
 - Describe the target population.
 - Discuss the significance of sample size, randomization, blinding
 - Differentiate between control and experimental groups
 - Differentiate between independent, dependent, and extraneous variables
 - Describe the impact of extraneous variables on validity and reliability
 - Interpret data gathered at baseline and intervention periods throughout the study
 - Compare data between study groups and within study groups.
 - Draw conclusions from research results
17. Describe desirable characteristics of an index.
18. Utilize and interpret caries, gingival, periodontal, plaque, and bleeding indices for simulated cases or with clients from your clinical caseload.
19. Analyze the data acquired in various indices.... for example, DMFT
20. Identify whether a given index is reversible or irreversible
21. Recognize the uses of descriptive and inferential statistics.
22. Apply measures of central tendency and measures of dispersion/variability to case problems.
23. Discuss the purpose of measures of correlation.
24. Interpret correlation and coefficients and indicate the strength and direction of the relationship between variables.
25. Be familiar with types and characteristics of various kinds of graphs
26. Know when informed consent is and is not required.
27. Interpret p values
28. Distinguish between Type I and Type II errors.
29. Define range, variance, mean, deviation, Type I – IV public health exams
30. Be familiar with the phases of a clinical trial.

UNIT IV

1. Differentiate between need, demand, access, and use of health care services.
2. Demonstrate understanding of the interactions between federal, state, and local public health agencies in the delivery of health care in the United States.
3. Compare and contrast the positions of the ADHA and the ADA on oral health issues.
4. Describe methods by which major professional associations and interest groups influence health policy.
5. Discuss the barriers/restrictions in access to care for those individuals/populations most frequently served by public health programs at the national, state, and local levels.
6. Discuss the role of health insurance and dental insurance as related to access to care.
7. Identify the eligibility requirements for Medicare and Medicaid, and discuss the relationship of requirements to access to care.
8. Describe how geographic distributions and number of minority practitioners impacts access to care in dentistry.
9. Discuss the relationship between access to care and legal restrictions on the supervision of dental hygienists.
10. State the criteria for a federally designated dental shortage area.
11. Recognize localities in Virginia which are federally designated dental shortage areas.
12. Discuss the various methods of financing oral health care through fee for service arrangements.
13. Discuss methods of financing oral health care through direct reimbursement agreements with employers.
14. Discuss free clinics and other sliding scale providers.
15. Discuss the impact of managed care on access, quality, and delivery of oral health services.

Topical Description

1. Dental Public Health, an Overview and The Prevention Movement
2. Dental Care Delivery in the United States
3. Dental Hygiene Care Delivery in the Global Community
4. Advocacy for Dental Care
5. Dental Health Education and Promotion
6. Target Populations
7. Program Plan Development
8. Research in Dental Hygiene
9. Virginia Department of Health
10. Biostatistics
11. Epidemiology
12. Financing Oral Health Care
13. Legislative Issues
14. Inter-professional Education
15. Community Service and Program Plans for Spring