

Submission date: February 10, 2020

Program/s in this review: Dental Hygiene BS _____

Specialized accrediting agency (if applicable): Commission on Dental Accreditation (CODA) _____

Campuses where the program is delivered: Anchorage _____

Members of the program review committee:

- Carri Shamburger, Assistant Professor (Chair), Anchorage
- Laura Stoddard, Assistant Professor, Anchorage

1. Centrality of Program Mission and Supporting Role (700 words or less)

Program Relevancy

Mission: The mission of the UAA DH program is to educate students in dental hygiene to the Bachelor of Science degree level. The educational objectives of the DH program are to produce graduates who have the technical skills and professional demeanor to perform occupationally related procedures, demonstrate the academic and clinical proficiency necessary to succeed on national and regional examinations, be prepared to perform industry-related practices in various settings, meet the occupational requirements of employers, and prepare students for graduate education. The program's mission aligns with that of the School of Allied Health, College of Health and UAA by supporting UAA's commitment to serving the higher education needs of the state and its communities by providing training in highly technical and skilled medical occupations to meet the healthcare needs of the people of Alaska. The program has potential to directly support the Board of Regents goal to double the number of health graduates by 2025, through partnerships with regional campuses with the University of Alaska.

History: The UAA Dental Hygiene program was established in 1975 to meet industry employment demands for dental hygienists. The high demand for competent dental hygienists continues across the entire state. Dental hygienists are primary care oral health professionals who are licensed to provide oral health services to patients, supporting their overall health through the promotion of optimal oral health. This definition speaks to the direction dental hygiene educational programs strive to pursue [Theile, (2017)]. Strengths and weaknesses of the current dental hygiene educational system. *Journal of Dental Education* 81(9)].

The entry-level Dental Hygiene (DH) program at UAA has recently been revised into a Bachelor of Science (BSDH) degree, with the first BSDH cohort enrolled spring of 2019, and a graduation date in the spring of 2021. The data presented in this review is historical from the former dental hygiene Associate of Applied Science (AAS) program. The former BSDH program was a degree-completion program for those AAS graduates that desired to earn a higher degree in the discipline of dental hygiene. BSDH data from the newly revised degree are not yet available.

Support for Other Academic Programs

The dental hygiene program selects a cohort each year through an application and interview process. Those that are not selected or who are unable to finish the program are mentored to pursue other UAA programs of their interest, e.g., Dental Assisting, Pharmacy Technology, Nursing, Medical Assisting, Physical Therapist Assistant, etc.

Partnerships

The UAA DH program has strong relationships with many local and state organizations through its clinical practicum courses and "Alaska Cares: Dental Days at UAA" annual event. These include the Alaska Dental Action Coalition, Alaska Dental Hygienists' Association, Anchorage Dental Society, Alaska Dental Society, Alaska Dental Assisting Association, Cook Inlet Dental Hygienists' Association, Project Access, SouthCentral Foundation, Tanana Chiefs Conference, Southeast Alaska Regional Health Consortium, Arctic Slope Native Corporation, Eastern Aleutian Tribes, Alaska Neighborhood Health Clinic, JBER Dental Clinic, and the Veterans Administration. The Dental Programs

Advisory Committee connects local and state dental professionals (dentists, dental hygienists, and dental assistants) to the program, providing industry feedback on current practices and on curriculum needs.

Another long-term relationship is with the law offices of Clapp, Peterson, Tiemessen, Thornsness & Johnson. For ~20+ years that practice has sent a professional liability attorney (often flown down from Fairbanks) to provide a three-hour presentation each year to our students on jurisprudence and risk management related to dentistry. The practice does this at no charge to the program.

Workforce Development and High Demand Designation

According to the Alaska Department of Labor and Workforce Development, dental hygienist employment in Alaska is expected to experience robust growth of 23.9% between 2016 and 2026. Preparing students to think and work in a rapidly changing health care world are incorporated into two of the dental hygiene program outcomes. The program educates students to make evidence-based decisions in an ever-changing clinical environment. Clinicians must stay current with new and changing knowledge to self-evaluate in order to provide positive clinical outcomes. The students are encouraged to use critical decision-making skills to develop a dental hygiene diagnosis, the basis for subsequent treatment. Graduates are ready for entry-level employment as dental hygienists once passing board exams and obtaining licensure.

2. Program Demand (including service to other programs), Efficiency, and Productivity (7 year trend; 1400 words or less)

An analysis of the current data shows that the dental hygiene retention rate is high. This is attributed to a strong selection process (required by accreditation) and substantive faculty intervention. Students are monitored and have mandatory conferences with faculty each semester to discuss and review progress, as well as examine areas of concern or deficiencies. Students that present with skill levels that are below standards or expectations are offered remediation with faculty. Student success is a priority and faculty/staff facilitate necessary interventions to empower and support students within the program. Many students continue their education after graduation, earning a BS either after their AAS (before that program was suspended) or working on graduate education after earning a BSDH.

Clarification of Positive or Negative Trends

Degrees Awarded: Without any attrition, the program graduates 14 students each year. When students do not complete the program, this is usually due to medical reasons, breeches in professionalism and academic failure, including inability to meet clinical competencies, and other reasons. It is also important to state that when students do not graduate with their initial cohort, they sometimes successfully complete the program and graduate after remediation efforts.

Credits/Years per Degree: The former AAS degree obliged students to complete the required prerequisites before admittance into the two-year dental hygiene program and required a minimum of 3 years to complete. This is one of the reasons the AAS was restructured to a BSDH as the entry-level degree.

Program Enrollment: After consistently maintaining an enrollment of 25 students, in 2019, program enrollment dropped to only 14 students; this is due to transition to the BSDH from AAS. The first cohort was admitted into the BSDH in Spring 2019. Lower SCH/FTE students and tuition in 2019 were because of the missing cohort during the transition from AAS to BSDH. Reassigning full time faculty to courses they did not normally teach and hiring fewer adjuncts helped reduce instructional cost.

Course Pass Rate: The course pass rate chart shows that students are very successful in lower division courses. Upper division course pass rates are slightly lower, likely due to grades of DF (deferred grade) assigned in senior practicum courses when students are unable to complete all clinical requirements during that semester. Most students with a DF are able complete requirements in the following semester and graduate.

The course pass rate chart also indicates some 500-level courses. The dental hygiene program periodically offers 500-level courses for professional development to practicing clinicians. The program is honored to be a resource for the continued learning of current practice-based information within the state.

Program Cost

The program is supported by tuition, fees and funding from the College of Health. Some program costs are offset by revenue generated at the dental clinic, which serves as a real-world lab for students that provides low-cost dental care to members of the community. Revenue generated from the clinic helps cover costs associated with needed consumables and personnel. It has high faculty costs due to the accreditation-mandated low faculty: student ratio (1:5) in labs and practicum courses. Although the program's costs are high, the DH program at UAA is critical to educate these dental professionals to address Alaskan healthcare workforce demands and thereby advance the health of Alaskans.

3. Program Quality, Improvement and Student Success (1500 words or less)

Specialty Accreditation

To be a licensed dental hygienist in the State of Alaska, students must graduate from a dental hygiene program accredited by the Commission of Dental Accreditation (CODA) through the American Dental Association (ADA). The ADA has specific accreditation standards that are required to maintain accreditation status. The program's last accreditation renewal was in 2014 and received approval without reporting any recommendations or requirements. The next accreditation renewal is scheduled for 2021.

Currency of the Curriculum

The DH curriculum is formally updated as needed to maintain currency. All curriculum and the catalog copy were revised between 2018-2019 in the process of making the transition to the entry-level Bachelor's Degree. A dental hygiene curriculum committee meets periodically to review current curriculum.

The program has a community-based advisory committee that provides direction and awareness of current clinical practices in Alaska. The DH program considers these practices for adoption into the current curriculum. New clinical practices that are not currently taught are informally added into courses as 'trial runs' to help faculty understand and assess the best method of implementation before making formal curricular changes. Faculty meet regularly to discuss student performance and often recommend curricular changes to improve student success and to best educate and train graduates for employment as dental hygienists.

Program Student Learning Outcome Assessment

In addition to tracking general outcome measures like graduation, employment, and performance on written and clinical board applications, CODA accreditation requires publicly posted program competencies that demonstrate required skills and knowledge. These competencies must be assessable within specific courses or activities identified to assess each competency. Development of the outcomes in this plan consisted of initial faculty development of program competencies to meet accreditation standards, then application of these competencies as outcomes in the UAA Assessment Plan to provide congruency. Student Learning Outcome (SLO) assessment is performed at the end of the academic year. The program utilizes a summative instrument to track whether and how competency for each SLO is assessed. Faculty meet to share instrument data from their courses and to discuss student performance in each outcome area. After honest discussion, faculty evaluate student performance based on the assessment instrument data and faculty discussion. Suggestions for improvement are considered for implementation in the program the following academic year, or when it becomes practical to do so. An assessment report is drafted and sent to faculty member for review and consent. The following is a list of program outcomes.

Program Student Learning Outcomes:

1. Provide and document dental hygiene care in a legal and ethical manner.
2. Exhibit professional behavior, including time management, risk management, and respect of patients and co-workers.

3. Critically evaluate scientific literature and research relevant to dental hygiene.
4. Collect, analyze, and record data on the general and oral health status of patients.
5. Use critical decision making skills to develop a dental hygiene diagnosis, which will provide a basis for interventions that are within the scope of dental hygiene practice and determine the need for referral to appropriate health professions as needed.
6. Formulate a dental hygiene care plan, including a planned sequence of educational, preventive, and therapeutic services based on the dental hygiene diagnosis in collaboration with the patient and other health care providers.
7. Deliver preventive and therapeutic care to achieve and maintain oral health utilizing established infection control procedures, pain control measures, and ergonomic practices.
8. Evaluate the effectiveness of the implemented services, and modify as needed.
9. Promote the profession of dental hygiene through service and affiliations with professional organizations.
10. Assess, plan, implement, and evaluate complex community oral health projects to diverse populations.

Program assessment has consistently demonstrated that graduating students are competent in all 10 outcomes. Faculty continue to evaluate the instructional methods and are open and flexible to additional instructional methods that bring success and learning to the students. Improvement recommendations have included, for example, suggestions to revise radiographic assessment for competencies, align junior and senior clinic requirements for ease of transition, and ensure students exhibit academic honesty and professional behavior in clinic. Through these recommendations and improvements, the program has been able to 1) reach a good balance with assessing radiographic competencies (not too hard or too easy), 2) adjust syllabus for junior level clinical requirements to align with senior clinic for a smooth transition to next level, and 3) through faculty emphasis on the importance of high levels of professionalism (especially in the area of patient sharing), the students exhibited more professional behavior with patients.

Student Success

CODA requires a selective application process so that applicants mostly likely to be successful are accepted into the program. College of Health academic advisors provide initial pre-major advising. As students complete required prerequisite courses for program application, they meet with a designated faculty advisor in the program to ensure they are best prepared to apply. Unsuccessful applicants continue to meet with that advisor to strategize ways to strengthen their applications.

The retention rate of the dental hygiene program is high because of faculty intervention. Student progress is carefully monitored and students are required to have one-on-one faculty conferences each semester to review progress and note areas of needed improvement. Students whose skill levels are below expectations are offered remediation with faculty. Student success is a priority and faculty/staff provide additional teaching and coaching to enable students to succeed.

Student pass rates on board examinations are excellent. For the didactic national board exam, the program boasts a 100% first time pass rate, with institutional scores significantly above national averages on a consistent basis. The pass rate for clinical board exams required for dental hygiene licensure is also 100%, with all graduates obtaining licensure and employment after graduation.

High Impact Practices: Community Engagement and Service Learning

The DH A424 Community Dental Health II course has been designated as a “community-engaged” course in which students help those in the community that are underserved by developing and implementing a community based dental health project to targeted populations.

In addition to learning in the dental hygiene clinic during their coursework, the students also participate in the Dental Programs’ free dental care events (Alaska Cares: Dental Days at UAA) jointly with other organizations such as United Way, the Alaska State Dental Hygienists' Association, the Alaska Dental Society, and Alaska Dental Access Coalition. The Dental Programs were awarded the Chancellor’s Award for small group collaboration for this event in 2013. Additionally, one of our volunteers was awarded the 2019 Faculty Senate award for Distinguished University Service by a Community Member for her work on this event. Last years’

event involved almost 50 community volunteers and provided \$93,000 in free dental services to low-income patients in the south-central Alaska region. Student feedback is that this is one of the most impactful learning experiences in the program. In 2014 the program participated in Alaska Mission of Mercy hosted by the Alaska Dental Society. An estimated 2,000 patients were treated during the event, and the students were able to take part in providing oral health education.

4. Program Duplication / Distinctiveness (300 words or less)

Duplication

The UAA DH program is the only dental hygiene program within the State of Alaska. A maximum of fourteen students graduate each year to supply dental hygiene needs throughout the entire state of Alaska. UAF had a small program for a few years but it was suspended.

The UAA DH program has the opportunity to develop, deliver, and provide education at additional campuses in the UA system through collaboration with department leadership, community organizations, and distance delivery. Through this collaboration, the entire UA system would be able to provide much-needed dental hygienists to the entire state. The dental communities in both Fairbanks and Southeast Alaska have indicated a need for more hygienists and support delivery of dental hygiene education in those areas.

Summary of Academic Program Prioritization Results

Programs within the UA system that were placed into *Consider for Enhancement* or *Priority for Enhancement* were recognized to have unmet demand or potential for growth, and were able to make the case that they are actively seeking out new opportunities and/or pursuing efficiencies. According to the UAA Program Prioritization 2013-14 Academic Task Force Report, the UAA DH program was slated for "Priority for Enhancement." The report states, "This program (Dental Hygiene) is doing its job extremely well, and is applying its program in a good and thoughtful way. The idea of a mobile clinic is well aligned with Priority Enhancement. What this group intends to do with enhancement is extremely mission-aligned and would improve our community engagement. This program cannot actually increase its number of students because there is a hard cap based on space." The program would still be interested in purchasing a mobile clinic if funding were available.

5. Summary Analysis (500 words or less)

The Evolving Role of the Dental Hygienist - Collaboration

Dental hygienists can work in collaborative practice settings in federal, state, and local health departments and clinics, in hospitals, and in long-term care facilities. While details vary by state, "direct access" allows dental hygienists to initiate treatment based on a patient's needs without the authorization of a dentist. In direct access states, dental hygienists can provide care in hospitals, private homes, Federally Qualified Health Centers (FQHCs), nursing homes, and other state or federal institutions. In the 39 states that permit direct access, dental hygienists may be the first oral health care provider to encounter the patient (Theile, 2017). Alaska is currently a direct access state, with additional legislation pending that could broaden practice settings for dental hygienists. Should this legislation be passed, practicing hygienists would require additional continuing education to meet licensure requirements, creating an opportunity for UAA to develop and implement those courses.

Dental hygienists who provide care in collaborative and non-traditional clinical settings address broader community needs, especially regarding access to care. As the dental hygiene profession continues to evolve, new models of care have been adopted to expand the services and settings of dental hygiene practitioners. The UAA DH program should have resources to support both entry-level and practicing dental hygienists to help meet needs for access to care in all parts of Alaska.

Program Excellence

The Dean has been supportive of the program, knowing that student success is a priority. The program has an excellent record of preparing students for employment as dental hygienists. All program student-learning outcomes are consistently met each year, and student performance on board exams is exemplary. The program desires to have continued support and possible funding for additional clinic time as needed for student success, as well as opportunities to pursue program expansion considering the dental community support for additional dental hygiene education in other areas of Alaska.

Recommendation

The role of the Dental Hygienist is increasing in scope and has strong potential in the primary care interprofessional setting (Theile, 2017). It is the recommendation of this committee that the BS DH Program at the UAA be **enhanced**. As stated earlier in this report, the program is positioned to collaborate with other campuses across the UA system to provide the education for additional dental hygienists.