

**AY20 Expedited Program Review- Health Sciences BSHS**  
(Updated 2-5-2020)

**Submission date:** January 31, 2020 / February 6, 2020

**Program/s in this review:** Health Science BSHS

**Specialized accrediting agency (if applicable):** none

**Campuses where the program is delivered:** Anchorage

**Members of the program review committee:**

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**1. Centrality of Program Mission and Supporting Role (474/700 words)**

The Bachelor of Science in Health Sciences (BSHS) is a relatively new, high demand program that prepares students to meet the needs of Alaska’s health workforce. As of November 6, 2019, the program had 496 pre-majors and 113 full majors, along with 32 public health minors, taking twelve unique “HS” courses offered by five tenure- track and one term full-time faculty members (*Banner, 11/6/19*).

The BSHS degree was approved by the beginning catalog year 2013-2014 in response to statewide demand and has grown rapidly from 2013 to today. Accordingly, graduation numbers continue to rise each semester. To date, 141 pre-professional and health educator track students have graduated from the BSHS Program. Indicators point to a trend of *continued growth*.

Physical therapy, occupational therapy, physician assistant, pharmacy, and speech language pathology, the five professions that pre-professional track students pursue, are high demand fields in Alaska. Health educator track students generally pursue health education and community health roles. The Bureau of Labor Statistics projects an 11% job growth from 2018-2028 in these health education and community health roles, demonstrating workforce demand for BSHS graduates. Health educator track students are also eligible to pursue the Certified Health Education Specialist (CHES®) credential after graduation. Alaska currently has 35 CHES® and at least 5 of these are graduates of the UAA BSHS Program.

The BSHS Program supports multiple programs within the College of Health, including the Kinesiology/Bachelor Science in Physical Education (BSPE) Program, which requires students to complete HS A220, and Nursing, Human Services, and Sociology programs, whose majors often take HS courses as electives.

Beyond UAA, the BSHS Program partners with an extensive list of community partners to provide professional development opportunities to students through the required health educator track practicum, community engaged and service learning activities, and student-involved research. In the last four years, students have worked with numerous partner agencies, including the First Alaskans Institute, Cook Inlet Housing Authority, Covenant House Alaska, Anchorage Aging and Disability Resource Center, Alaska Center for FASD, Hope Community Wellness, Southcentral Foundation, Head Start, Chickaloon Tribe, ANTHC’s National Tribal Water Center, United Way of Mat-Su, Anchorage Senior Center, Bean’s Cafe, Older Person’s Action Group, the WIC program, YMCA Diabetes Prevention Program, Alaska Boxing Academy, and the State of

Alaska's Diabetes Prevention Program, Tobacco Prevention Program, and the Division of Environmental Health, Food Safety and Sanitation Programs.

Extramural support for the BSHS program has been provided by the TVEP award program. These funds initially enabled the BSHS program to hire a second faculty member; additional funding then made it possible for the program to hire a practicum coordinator to support the health education track practicum program and build capacity to support professional development for pre-professional students. Program TVEP award funding has totaled \$692,063 from 2013-2019. In addition to TVEP support, BSHS Program faculty have brought in more than \$350,000 in external funds.

## **2. Program Demand (including service to other programs), Efficiency, and Productivity (7 year trend; 1052/1400 words)**

The goal of the Board of Regents is to double all health graduates by 2025; the BSHS Program is dedicated to that mission and will continue the trend of increasing the total number of graduates each year through 2025 (i.e., from 1 in 2015 to 40 in 2019).

Before the BSHS pre-professional and health educator degree tracks were approved by the Board of Regents in 2012, the DPHS offered a Bachelor of Science in Health Sciences (BSHS) degree to students completing the UAA/University of Washington (UW) MEDEX Northwest Physician Assistant Program and a Minor in Public Health. In the 2013-2014 Academic Year, the DPHS added the BSHS health educator and pre-professional track options. In the 2019-2020 Academic Year the DPHS removed the MEDEX Program track from the BSHS program catalog copy going forward, reflecting MEDEX's transition to a Master's degree granting only program, in response to national requirements that all physician assistant programs become Master's degree programs.

The seven year data shared by Institutional Research for the BSHS Program from the 2013-2014 year forward may appear somewhat confusing to reviewers, because it does not separate out the pre-professional and health educator tracks (new, offered beginning in the 2013-2014 Catalog Year) from the MEDEX Northwest Physician Assistant Program track (and – further obscuring student numbers - many MEDEX students choose to receive degrees from the University of Washington; fewer choose to receive their degrees from UAA), and this seven year data encompasses the scale up period of a rapidly growing program.

The first BSHS health educator and pre-professional students graduated in the Spring 2015 semester (N=3). This number has increased steadily. 78 of the 141 graduates to date (55%) graduated with academic honors (GPA>3.49) (*Banner Reports, November 2019*). These graduation numbers are reflected in the Institutional Research "**Seven year degree award**" data, in which observers will note the number of degrees awarded rose sharply (from seven in 2014 to 15 in 2015 and 40 in 2019) as students in the health educator and pre-professional tracks began graduating alongside the MEDEX students; it is anticipated that the total number of graduates will continue to rise as more health educator and pre-professional track students complete their required coursework.

The "**Credits per Degree**" number was artificially low during the years students in the MEDEX Northwest Physician Assistant Program earned BSHS degrees, which is why the credits total was less than the required 120 credits for a Bachelor's degree through 2017. The 2018 and 2019 data more accurately reflect BSHS pre-professional and health educator track students' credit earnings. BSHS faculty continue to advise students with the goal of helping them graduate as close to the required 120 required credits as possible, to keep the BSHS Program efficient and student tuition costs reasonable. This is challenging when students transfer into the program late in their academic career, but it remains a division priority.

The BSHS Program's "**Semester per Degree/Years per Degree**" numbers reflect the reality that most BSHS students are non-traditional students working full-time and intentionally completing fewer courses per year, which extends their time enrolled in the program.

The **“Seven Year Majors Enrollment”** rose precipitously from a high of six in 2013 to 23 in 2016 and 61 in 2019. This data set does not show the number of declared pre-major students. The pre-major numbers have tracked upward along with the number of full majors, going from 383 in Fall 2015 to 433 in Fall 2019 (*Banner Reports, 12/1/15 and 11/21/19*). Historically pre-major students were required to complete a three-course sequence and 20 hours of health-related volunteer work to become full major; however, the pre-major status is currently being phased out. Consistent with institutional direction to reduce reliance on a full major / pre-major distinction within programs, as of Fall 2019 students can initially declare as BSHS majors. Advisors are currently in the process of advising existing pre-major students through the Change of Major process to become “full” BSHS majors.

BSHS **“course pass rates”** are acceptable. All faculty would prefer more students succeed each semester; however, this has to be balanced with a commitment to high standards for students.

**“Internal demand”** numbers reflect that the majority (58%) of BSHS student credit hours (SCH) are generated by in-major students; however, demand from students majoring in other subjects is substantial, particularly in HS A220, HS A420, and HS A433.

BSHS **“Student Credit Hours”** (SCH) rose consistently from 2013 to 2019, as did the **“Fulltime Equivalent Faculty Member,” “Fulltime Equivalent Student,”** and **“Full Tuition Revenue,”** reflecting necessary and balanced program growth. It is particularly important to note that the **“Full Tuition Revenue”** brought in by the BSHS program exceeds the **“Instructional Costs”** of the program and has done so every year for which data is available.

**“Class size”** has averaged more than 20 students per section since 2017; **“Class Utilization”** has exceeded 80% since 2016. These consistently large class sizes and utilization data reflect the BSHS Program’s ongoing, tailored course planning. All BSHS faculty members meet each semester to design a class schedule that will efficiently meet student instructional needs, keeping class sizes consistently large to maximize tuition revenue.

**“External Demand”** data demonstrates that UAA BSHS graduates seek graduate education, which the BSHS Program is designed to prepare them for. The BSHS program is a key pipeline program, offering undergraduate preparation for students who pursue further education in UAA’s Masters of Public Health (MPH) Program, the UAA/UW MEDEX Northwest Physician Assistant Program, the UAA/Idaho State University Doctor of Pharmacy Program, the Creighton University/UAA Doctor of Occupational Therapy program, and UAA’s affiliated Master’s Degree in Speech-Language Pathology from East Carolina University, as well as graduate programs outside of Alaska.

The first BSHS pre-professional and health educator track student graduated in 2015; the **“External Demand”** data below shows a rapid rise in the number of **“2nd Enrollment”** / BSHS alumni enrolled in graduate programs after that date. Faculty report that BSHS alumni are currently enrolled in the MEDEX Northwest Physician Assistant Program; the Creighton/UAA Doctorate in Occupational Therapy Program; and UAA’s MPH Program, while others pursue the same degrees at other institutions. Similarly, other alumni are currently pursuing further education in a doctorate of physical therapy, counseling psychology, and other programs outside Alaska. It is expected that the **“2nd Award”**/ graduate program completion numbers will rise as those students progress to graduation.

### **3. Program Quality, Improvement and Student Success (1139/1500 words)**

The BSHS Program curriculum, which was approved by the UA Board of Regents in 2012, is modeled after nationally recognized undergraduate health sciences degree programs. The curriculum provides foundational knowledge, skills, and experiences needed for careers in both clinical and community health settings.

The curricular focus on community-based health education provided through the practicum program and other course offerings result in students gaining professional experience in health careers, supporting their employment across many sectors of the public health workforce, including maternal and child health,

environmental health, alcohol and substance abuse treatment and recovery, community-based health advocacy and policy work, refugee assistance, tribal health, housing and homelessness, and positive youth development.

The BSHS Program incorporated Program Student Learning Outcomes (PSLOs) for the health education and pre-professional tracks in the 2018-2019 academic year. Assessment measures were gathered from capstone reflection assignments, alumni surveys, and student ePortfolios to evaluate the program's performance against these PSLOs. Alumni surveys agreed that PSLOs were met by the end of the program. In capstone reflections, students expressed confidence that the program had prepared health education track students for future careers as health educators and voiced concerns that the pre-professional track is not focused enough on practice. Future assessment work by program faculty will focus on improving the links between assessment outcomes and specific PSLOs.

At the spring 2019 Assessment Retreat, the BSHS Program faculty also did a comprehensive assessment of the curriculum. Based on gaps identified, the program has since added two courses: *HS A305: Public Health for an Aging Society* and *HS A485: Health Sciences Pre-Practicum*. In addition, all course curriculum guides have since been updated, with a focus on aligning pre-requisites to improve student success.

The BSHS Program utilizes many high impact education processes, including team-based learning, community-engaged and service learning courses, online learning, use of ePortfolios and other technology, integration of research experiences into courses, interprofessional education opportunities, and utilization of capstone coursework (through *HS A492: Senior Seminar in Health Policy*). The program also encourages and has several students participating in the Alaska Health Education Centers (AHEC) Scholars Program designed to broaden students' professional development through additional community-based learning in rural communities or urban underserved populations.

Students in core courses (*HS A210 Introduction to Environmental Health*, and *HS A230 Introduction to Global Health*) are involved in writing intensive, seminar-style learning which encourage critical inquiry and tackling "...big questions that matter beyond the classroom." (From *High Impact Educational Practices: What They Are, Who Has Access to Them, and Why They Matter*, by George D. Kuh, AAC&U, 2008). Team-based learning (TBL) is utilized in both upper and lower division courses to provide students with the opportunity to apply their learning in the classroom and build collaboration skills that they will need in the workforce.

Service learning opportunities are offered through *HS A305: Public Health for an Aging Society*, *HS A420: Introduction to Program Evaluation*, *HS A433: Health Education: Theory and Practice*, and *HS A495: Health Sciences Practicum* courses. These courses partner students with community groups and organizations, offering a rich, applied learning experience for students that also benefits community partners.

A recent focus on increased flexibility of course offerings means that HS classes are now offered in multiple formats, including face-to-face, online (synchronous and asynchronous), and blended formats. BSHS faculty have developed online offerings of *HS A492: Senior Seminar in Contemporary Health Policy* and *HS A495 Health Education Practicum* which were piloted in the 2018-2019 academic year. These courses will continue to be offered online at least once every two years, making all HS courses available to students outside the Anchorage area.

Use of ePortfolio technology is integrated into several classes (*HS A495*, *HS A492*, *HS A433*) as a mechanism to curate, display, and share student work in creative ways. Student ePortfolios are used as a tool for assessment, professional development (i.e., digital resume), and information dissemination to community partners and stakeholders.

Students have also participated in FLEUR-funded research integrated coursework, which enabled a section of *HS A433* to participate in community-based research with the Filipino community in Anchorage to address disparities in colorectal cancer screening, and transformed *HS A305* into a service-learning, interprofessional education (IPE) course where students lead community health promotion activities for low-income seniors. Other research opportunities for students have included the Healthy Aging Lab's concept

mapping project, the purpose-in-life & health outcomes project for urban seniors (Anchorage & Fairbanks) funded by the National Resource Center for Alaska Native Elders, the “Friendships Forged in Fitness” project to investigate social relationships of older women participating in water aerobics classes (Faculty Development Award), smoke-free campus initiatives (e.g. HS A220 focus group) and FASD case management research in *HS A370* (Faculty Development Award).

BSHS students are also able to engage in community-based participatory research projects and individual service-learning projects as a part of their involvement with the department’s Healthy Aging Lab and through *HS A498* projects. *HS A498* students recently conducted surveys of Alaska obstetricians and Alaska commercial salmon gillnetters, developed health education interventions for elementary students, participated in needs assessments, and completed evaluation activities. Through administrative scholarships, such as the Center for Community Engagement and Learning’s Community Engaged Student Assistant (CESA) program, students have worked with RurAL CAP, the UAA Breastfeeding Support Project, the Anchorage Senior Activity Center, the Anchorage Aging and Disability Resource Center, and the evaluation of the Resilient Communities initiative. Students enrolled in *HS A420: Introduction to Program Evaluation* have supported evaluation of local programs such as the YMCA High Blood Pressure Program, the Center for Safe Alaskans Car Seat Program, the Parents as Teachers home visiting program, the new Health Testbed for Innovative Enterprise (T.I.E.) Program, the Brother Francis Shelter Inter-professional Student Clinic & In-house Program, Refugee Assistance and Immigration Services Program, Alaska YMCA’s High Blood Pressure Program, and the Center for Safe Alaskans Car Seat program.

BSHS students have presented their research to the wider public health community at the ALPHA Alaska Health Summit (with support from the Northwest Center for Public Health Practice), the Alaska Evaluation Network Conference, the UAA CCEL Poster Forum and Student Engagement and Research Poster Forum. Students involved with the Health Aging Lab also regularly co-author articles in the local *Senior Voice* statewide newspaper, and one student recently co-authored an academic article in the *Journal of Applied Gerontology* with BSHS faculty.

With more than 600 declared pre-major and major students and six full time faculty members, academic advising remains a challenge for the BSHS Program. At this time, most BSHS students who have completed less than 75% of their Tier 1 GERs and 12 credits of BSHS courses receive advising through the College of Health Student Success/Advising Office. Students who have met those requirements are also paired with faculty advisors, to engage early with professional development opportunities, such as participating in undergraduate research. At this time, each faculty member is advising approximately 50 students.

#### **4. Program Duplication / Distinctiveness (93/300 words)**

The BSHS Program is unique in the UA Statewide system. The most similar program is at UAS, which has an Associate of Applied Science (AAS) in Health Sciences degree, which is an allied health-focused course that does not overlap in content with the BSHS program. This degree “prepares students to enter direct care training programs and to apply (transfer) to a variety of health care training programs” (UAS website, 11/6/19). Students who complete the AAS in Health Sciences degree and are interested in earning a Bachelor’s degree could continue into the BSHS program.

#### **5. Summary Analysis (309/500 words or less)**

*This program should be considered for enhancement.*

The BSHS Program is a vital contributor to Alaskan workforce development, directly graduating students into high-demand workforce positions (i.e., health educators) and preparing them to pursue graduate training in other high-demand professional fields (e.g., pharmacy, physician assistant, occupational therapy).

The BSHS Program currently has:

- Strong student numbers, consistent growth.
- Clear alignment with UAA Mission.
- Nimble, creative faculty committed to student success.
- Coursework that incorporates high-impact educational practices, including team-based learning, community-engaged and service learning, use of ePortfolios, online learning, integration of research experiences into courses, and utilization of capstone coursework.
- Practicum and inter-professional development opportunities.
- Strong alignment with graduate programs committed to training future Alaskan healthcare professionals, including the UAA/University of Washington MEDEX Northwest Physician Assistant Program, UAA/ISU Doctor of Pharmacy Program, Creighton University/UAA Doctor of Occupational Therapy Program, and the UAA-affiliated Master's degree in Speech-Language Pathology from East Carolina University.
- Strong commitment to the health needs of Alaska. BSHS students are eager to continue their training and careers in Alaska.

Additional resources (**enhancement**) would enable the BSHS program to build on the accomplishments listed above and further support student success by:

- Increasing experiential learning to enhance students' professional experience. This will particularly benefit pre-professional track students who are not required to participate in the current, health education-focused practicum.
- Securing a full-time Practicum Coordinator position funded by the Division (this role is currently funded via TVEP funds, which diminish each year).
- Creating and offering additional courses to support pre-professional track students' successful application to graduate/professional programs and health educator track students' successful pursuit of the Certified Health Education Specialist (CHES®) credential.
- Increasing the number of course sections offered each semester, helping students progress more quickly through the program.
- Expanding current practicum and interprofessional education opportunities for all BSHS Program students.