University of Alaska Health Programs Report
A Decade of Growth

Health Majors - Fall 2000-2009

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University of Alaska¹ Health Programs Report: A Decade of Growth

In reviewing the evolution of health programming in the University of Alaska (UA) system over the past decade (AY2002 – AY2011), it is tempting to focus on the growth in the number and type of certificates/degrees offered and the increases in student enrollments, credit hours and graduates. And, indeed, these changes have been noteworthy: a 105 percent increase in pre-majors and majors enrolled in programs preparing them for health careers during the decade, from 2,142 in Fall 2001 to 4,399 in Fall 2010.

However, the real story of the past decade has been the dramatic transformation of the University of Alaska into a major player in the health care industry in the state. As one of the few state systems in the nation without a medical school, UA in the past played a relatively minor role in health care workforce development, planning and research. The advent of funding in 2001 from the federal Health Services and Resources Administration (HRSA) and the subsequent establishment in October of that year in the UA President’s office of the Associate Vice President for Health (AVPH) signaled a major change in status.

HRSA funding did not go to provide programming or direct services. Rather, the funds were used as "seed money to assess needs, compile data and engage stakeholders to meet the growing needs for academic programs and research activities" (HRSA Report, no date). In effect, the funds allowed the UA system to prepare the ground in which new programs, services and facilities could take root. As will be seen in the following discussion, the concept of "seed money" with its connotation of organic growth is very apt, in that the relatively small amount of HRSA funding has been leveraged with other sources and has multiplied many times over. Reinforcing the organic metaphor was the philosophy of "Grow Our Own" which was adopted by the university and which focused on bringing articulated health career ladder programs to students in rural and urban settings and at mid-career.

The AVPH position—which was filled by a prominent Alaskan with long ties to the health and human resources fields—brought UA increased visibility in the health care arena and gave industry and government agency stakeholders a single point of contact to be the "face" of UA on health issues. The position and a modest support staff formed the office of Statewide Health Programs (SWHP). Later years of HRSA funding helped support a second position at UAA that is now the Vice Provost for Health Programs (VPHP), demonstrating additional UA high level attention to health care concerns.

¹ The University of Alaska system is made up of three separately accredited universities: the University of Alaska Anchorage (UAA), University of Alaska Fairbanks (UAF), and University of Alaska Southeast (UAS). These three organizations are labeled Major Administrative Units or MAUs. The University of Alaska Statewide (SW) Office provides central support functions and oversight, and houses the Office of the President. Total student enrollment is about 35,000.
The impact of HRSA funds has been quite remarkable, both internally to the UA system and on the health care industry as a whole. Organizing information about UA system growth in capacity and in programs and services in a manner that is both comprehensive and comprehensible has been a major challenge to the evaluator. To provide some clarity, the report is organized according to major health areas:

- Nursing
- Allied Health
- Behavioral Health
- Medicine
- Health Research

Under each area, significant events and activities are described, generally in chronological order. However, because of the organic nature of the growth, at times it is helpful to follow the outcomes of an event/activity to its conclusion. For example, the organization of the allied health deans and faculty into the Allied Health Alliance led over time to the development of the Alaska Area Health Education Center network, which in turn opened up several streams of activity in outreach, clinical placements and continuing medical education.

HRSA-funded staff engaged stakeholders in assessing needs in each major area. In some cases, the outcome of this involvement and analysis was the creation of new organizational structures, either internally within the UA system or externally. In many cases, it led to new or expanded programming within the UA system, supported by other funding sources. Although not all of the final outcomes directly received HRSA dollars, they are described here because, without the efforts of HRSA staff, they would either not have come about or would have been much delayed.

The Associate Vice President for Health position was vacated in spring 2010 and the duties of the position were transferred to the Office of Health Programs Development (OHPD) under the UAA Vice Provost for Health. Although the office is administratively and physically located at UAA, it is charged with continuing the efforts of Statewide Health Programs in promoting system-wide development of health academic programs and research across the state and serving as an interactive bridge between external and internal stakeholders.

Nursing

At the time of the AVPH hire, the university was under considerable pressure—both from industry and its own campuses—to expand its associate degree nursing program from limited on-site programs in Anchorage and Fairbanks to other areas of the state. Industry was experiencing
Both a severe nursing shortage and other UA campuses had high local demand from students wishing to access a nursing program. Several campuses had invited an out-of-state university to distance deliver an LPN program to their communities, often at the request of local health employers. At the same time, the UAA School of Nursing (SON)—the sole nursing program in the state—was under-resourced in terms of faculty and reaching the limit of Anchorage-based clinical sites.

One of the first assignments of the new AVPH was to work to resolve the issue. An Industry/University Nursing Education Taskforce was formed in January 2002 made up of representatives of industry, School of Nursing leadership and UA campuses. The Task Force was co-chaired by the AVPH and the CEO of the Alaska hospital and nursing home association (ASHNHA). A Research Associate, who was later to become the UAA Vice Provost for Health Programs, facilitated the work of the group. HRSA funding supported staff and travel. The Task Force agreed on a plan to expand the UAA School of Nursing AAS program via distance delivery to six additional sites and to increase admissions in the BS program in Anchorage. The goal was to double the overall number of basic nursing graduates by 2006.

The nursing expansion plan was one of the topics of discussion at the Health Summit held in December, 2002. Subsequent to the Summit, five industry employers pledged collectively to provide $1.9 million to support the expansion over the next three years. UA agreed to match these pledges. By 2007, three additional hospitals had contributed, for a total of $4.1 million in industry support.

The nursing expansion project was an "early win" for the newly revitalized health programming emphasis of the UA system. By 2006, the UAA School of Nursing was delivering the associate degree by distance in multiple sites. The bachelor’s program had gone to a trimester schedule. By 2009 the School had graduated 1,400 nurses, twice what would have been possible without the expansion. Presently, the program is accessed at 13 sites outside of Anchorage and SON capacity has more than doubled from 96 admission slots in 2002 to 223 slots at present.

Allied Health

According to an inventory taken in 2002, the UA system at that time offered 26 programs in various allied health areas. Most of the programs were offered on-site in either Anchorage or Fairbanks; four were distance delivered in whole or in part.
The 2002 inventory reported enrollments in dental assisting and hygiene, medical assisting, medical laboratory, health information and emergency services. In Fall 01, there were 181 students enrolled in these programs system-wide, with the largest number in emergency services and health information. The same programs graduated 67 students with certificates or degrees in Spring 01. Given these relatively low figures, there was industry concern that the university programs were not meeting demand for workers in the allied health professions.

**Allied Health Alliance**

In July, 2002, the AVPH convened a UA cross-campus task force of deans and faculty “to identify issues concerning allied health programs in the system statewide and to work collaboratively to solve problems and make further plans.” (AHA Charter, October 2002). The task force formed itself into the Allied Health Alliance (AHA) with a formal charter and memoranda of agreements among the participating campuses. The AHA was subsequently recognized by the Provosts of the three Major Administrative Units (MAUs) of the UA system as the coordinating body for allied health program planning and as the one UA point of contact with industry on allied health concerns. Since its foundation, AHA has met 3-4 times per year.

Prior to AHA, there were few examples of truly collaborative efforts among the MAUs. Each MAU is separately accredited; each has a different mission; all had suffered from more than a decade of declining state support in which gains of one entity came at the expense of the others. Yet, AHA has accomplished a significant body of work and has become the model for other UA cross-MAU collaborations, including the Behavioral Health Alliance, which will be discussed below, and an emerging collaboration among UA fisheries programs.

One of the first activities of the Alliance was to sponsor a University/Industry Allied Health Forum in April, 2003. The forum involved an equal number of university and industry participants (47 each), as well as 22 state and two federal agency representatives. Five tribal health organizations were among the industry representatives. The forum provided breakout sessions along occupational lines: Dental Assisting, Emergency Medical Services, Medical Laboratory, Health Information Management, Pharmacy, Medical Imaging, Direct Care Services. Each group was asked to examine current barriers and opportunities and to develop recommendations for UA and industry. Although each group had some individual concerns, two stood out...
across all groups. First, each group recommended an increase in the use and quality of distance-delivered programs and second, more outreach to the K-12 system to develop a pipeline of potential workers. The Direct Care Services group also recommended that core competencies be developed for workers in that occupation. Each of these recommendations was subsequently addressed.

Distance Delivery

Distance delivery of allied health programs was tackled first, with several major projects. Distance programs were developed primarily to extend access to areas of the state—particularly rural Alaska—that had been un- or under-served, although once programs came on line a considerable number of students with access to campus programs took advantage of the increased flexibility that distance programs offered. Program development was guided by the principle "Place Committed versus Place Bound"—a principle that focused on programs that had career opportunities for students in their place of residence and which would provide local employers with a pool of trained workers who know the area and are committed to living there. The goal was to “Grow Our Own – Close to Home.”

Denali Commission

For its first major distance effort, the Alliance secured a sizable grant from the Denali Commission, an independent federal/state agency designed to provide critical utilities, infrastructure, and economic support to rural Alaska through inter-agency cooperation. The first grant funds were received in 2004 and have continued to the present.

The Denali project had three overarching goals:

- Address rural Alaska's Allied Health workforce needs
- Improve access for rural students to UA Allied Health programs
- Engage in closer and on-going partnerships with rural employers

Because the Denali project has been so far-reaching and long-lived, it will be covered in greater detail in a companion piece to this evaluation. Here it is sufficient to provide a few salient facts.

The Denali project focused on nine career areas chosen due to high vacancy rates and high rural needs, as well as program interest and willingness to invest in development and expansion. The areas and associated certificate/degree are:

- Medical Office/Health Care Reimbursement/Health Information Management (Biller and Coder)
- Dental Assisting (Dental Assistant)
- Pharmacy (Pharmacy Technician)
• Radiology (Limited Radiographer)
• Medical Laboratory (Phlebotomist, Clinical Assistant)
• Direct Service (Personal Care Attendant/Certified Nurse Aide)
• Community Health (Community Health Aide/Practitioner)
• Community Wellness Advocate (Village Health Educator)
• Physical Therapy (Physical Therapy Assistant)

The project also established student support systems for rural students, curriculum development in rural sanitation and epidemiology, and a regional allied health program in the Bristol Bay area. Responsibility for program development and delivery was spread across the three universities in the UA system, making the Denali project a truly system-wide, cooperative effort.

The 2010-2013 Funding Proposal and Sunset Plan to the Denali Commission on the project was able to report considerable success. Six of the occupational programs and the Bristol Bay project have transitioned completely off soft funding; five are now supported by UA general fund resources and one (Community Wellness Advocate) was taken over by the Southeast Alaska Regional Health Consortium. The report also indicated that 42 distance programs had either been created or substantially re-tooled since 2002 as a result of Denali support, and more than 50 distance courses created.

Unduplicated enrollments in Denali programs were 426 for Academic Year 2009/10. Summary statistics for the first four years of the project are contained in the following table.

### Denali participants 2004 – 2008

<table>
<thead>
<tr>
<th>Total number of participants</th>
<th>Limited Pharm</th>
<th>Limited Rad</th>
<th>MEDT</th>
<th>DA</th>
<th>PCA/CNA</th>
<th>HCR</th>
<th>CHAP</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of program completers</td>
<td>11</td>
<td>18</td>
<td>21</td>
<td>0</td>
<td>101</td>
<td>0</td>
<td>193</td>
<td>344</td>
</tr>
<tr>
<td>Number of communities</td>
<td>21</td>
<td>17</td>
<td>20</td>
<td>8</td>
<td>13</td>
<td>68</td>
<td>181</td>
<td>213</td>
</tr>
</tbody>
</table>

**HDEP/EAHP**

Although Denali funding was a major spur to developing allied health distance programming, several other projects supported the effort. The Health Distance Education Partnership (HDEP) was funded in 2004 primarily by Congressionally-directed grant funds from
the U.S. Department of Education Office of Postsecondary Education to “develop and deliver distance learning courses in areas of high demand health care careers.” Additional support came from the Denali Commission, UA Nursing Expansion, and Bio Terrorism and Bio Defense contracts with the Alaska Department of Health and Social Services and the University of Washington.

These resources supported instructional design (ID) staff who worked with faculty in migrating selected allied health courses to appropriate formats, including Web-based, video teleconferencing, audio conferencing and blended mediums. HDEP included certificate and degree programs in nursing, pharmacy technician, dental assisting, radiographic technician, medical lab technician, community health aide/practitioner, medical office, personal care attendant and community wellness advocate. In addition, HDEP addressed continuing education for practicing health care professionals.

Over the two cycles of HDEP funding (FY05 and FY06), the instructional design team worked with 58 instructors on creating or modifying 103 courses for distance delivery. The School of Nursing—which was a heavy user of HDEP design services—evidenced its commitment to continuing instructional design support by transitioning an HDEP design position to general funds at the end of the grant period.

Enrollments in allied health programs nearly doubled from 252 in Fall 2004 (the first semester after grant funding) to 471 in Spring 2006, with most of the growth attributable to the increase in access afforded by distance delivery.

The success of the Denali and HDEP projects led to the Expanding Access for Health Programs (EAHP), funded by HRSA in 2008. EAHP had two major goals:

- Expand capacity and delivery of high caliber UA Statewide Health Certificate and Degree Programs
- Enhance partnerships in Alaska’s health industry by supporting professional learning in technology enhanced practice and simulation systems.

An evaluation of the extent to which Goal 1 has been achieved found that "Over the past five years, the UA system has significantly expanded access to both allied (including nursing) and behavioral health programs. For the most part, both students and faculty involved in these programs are comfortable with distance technology and are satisfied with their experiences.”

The evaluation cited UA Institutional Research findings (Spring 2009) that the number of enrolled declared majors in health related degree, certificate and occupational endorsement programs increased 73 percent, growing from 2,144 to 3,709 in the period from Fall 01 to Fall 08. The growth had been experienced at all three universities.
The data also indicated that there was increased participation in health training courses that qualify students to work in specialized health jobs, such as EMT courses. Headcount of students in these courses who were not health majors doubled between Academic Year 2002 and 2008. When both certificate/degree seekers and health training course completers are taken into account, around 4,200 Alaskans are enrolled in university health courses in an academic year.

The EHAP project resulted in the February 2010 adoption of the EHAP Program Priorities. Although the priorities were developed within the context of health programs, their potential impact was more far-reaching. Based on input from 54 faculty and stakeholders from across Alaska, many of the recommended actions to improve distance program success relate to larger system issues, such as student support and cross-MAU enrollment.

Based on the EHAP activities, the program director was named to a UA statewide committee to respond to the Alaska Legislative Audit Findings regarding the parameters and description of distance education courses in the system. She has been instrumental in developing the UA 2010 Phase 1 Inventory of Programs Using eLearning/Distance Education and the UA 2011 E-Learning Collaboration Incentives Proposal. The latter relies quite heavily on the EHAP Program Priorities.

A final allied health distance effort was funded by the U.S. Department of Labor in 2008 under the President's Community Based Jobs Training Program. The grant to the UAF College of Community and Rural Development (CRCD) focused on expanding access to courses in coding, billing, health information occupations and CNA through distance delivered courses and clinical instructors who traveled to the regional campuses to provide clinical sections of the courses. Although the grant was administered by CRCD, courses were open to students throughout the state. In 2008, 126 students in 40 villages participated. Through expanded distance offerings, CRCD increased its enrollment in allied health courses from 86 in the 2005/06 academic year to over 800 in Fall 2011. Much of this growth is attributable to the occupational endorsements in health care reimbursement.

Clinical Simulation

As mentioned above, the second goal of EHAP program was directed at increasing and supporting the use of simulation in professional learning. UA interest in simulation was a direct outgrowth of the expansion of nursing slots both in Anchorage and around the state and of the expanded use of distance delivery in other allied health programs—all of which increased the need for clinical experiences. Burgeoning enrollments put considerable pressure on clinical sites in Anchorage. Distance programs were delivering didactic instruction to areas of the state where students had little or limited access to clinical sites to gain practical experience. Simulation was seen as one way of providing student access to opportunities to put theory into practice.
This emphasis allowed EHAP staff to actively participate in the work of UA Clinical Simulation Task Force in 2007, funded by HRSA through the SWHP Office with additional support from the UA Office of Workforce Development. The subsequent task force report—*Clinical Simulation in Alaska: More than Mannequins, More than Centers*—is providing the blueprint for cooperative use of the three simulation facilities that became available with the August 2011 opening of the UAA Health Sciences Building in Anchorage.

Subsequent to the Task Force report, the EAHP office accepted the challenge to facilitate the introduction of clinical simulation into the University's health programs and interested industry partners. EAHP convened and facilitated the quarterly Clinical Simulation Users' Group comprised of statewide users who collaborate and share information including technical and facilitation expertise, program development issues and various tools and templates. Participation is both consistent and growing.

Due to Alaska's geographic and population uniqueness, EAHP proposed a regional coalition approach to developing simulation resources rather than a statewide model. These regional coalitions consist of community-based, local university and healthcare organizations. EAHP has supported the formation of Interior and Southeast coalitions; Southcentral, Western and Northwest are being phased in.

Dedicated staff and nursing faculty have already built simulation into the curricula of the AAS and BS degree programs. By fall 2011, simulation will be part of the learning experiences of all nursing students, both in Anchorage and at the SON outreach sites in Fairbanks, Juneau, Ketchikan, Sitka, Bethel, Kotzebue, Nome, Dillingham, Mat-Su, Kodiak, Homer, Kenai and Valdez. The simulation program at each location presents opportunities for collaboration with the continuing education program of local clinics and hospitals. Efforts are underway at this time to equip or update existing equipment in these sites and train faculty in its use.

In addition to the Users Group, which includes industry partners, an internal UAA Health Inter-Professional Clinical Simulation (ICS) Faculty Committee was formed in the 2010/11 academic year and continues to meet. The group has representation across the health disciplines: nursing, psychology, physician assistant, WWAMI medical school, social work, paramedic, medical laboratory, occupational therapy and speech. ICS has several objectives:

- Identify opportunities for inter-professional education (IE)
- Develop a Standardized Patient program
- Evaluate the feasibility of implementing IE courses
- Provide a clearinghouse for IE opportunities for many disciplines on campus.
The group began a matrix of course lists across several disciplines to help identify mutual topics or learning opportunities for joint simulations. The group was assisted in the 2010/11 academic year by a full-time simulation manager. This position, housed in the new College of Health, will manage the simulation facilities and multidisciplinary activities in the new Health Science Building.

**Pipeline Programs**

In addition to the expansion of distance delivered programs, the 2003 Allied Health Forum participants recommended that more targeted efforts be made in reaching out to the K-12 system. Developing pipelines through which well advised and well prepared students could transition from high school into postsecondary health career programs was also a vital component of the "Grow Our Own" strategy adopted by the university. Although most of the activities described below were spearheaded by the Allied Health Alliance, most covered the broad range of careers in the health industry.

Two websites were developed in 2004: *Health Careers* and *AK Health Careers*. The *Health Careers* website (<http://www.healthcareersinalaska.info/>) is maintained and updated by the Alaska Center for Rural Health/Alaska's AHEC. Site users are able to take a Career Interest Inventory and learn about all the different jobs in the health care field. *Health Careers* describes in detail over 50 health-related careers available to students in Alaska and introduces users to some Alaskans who are working in health care fields. Information on financial aid and on health or science-related camps and internships is also included.

The websites have been supplemented by several documents and tools that are intended to provide information to high school students and guidance counselors, as well as other Alaskans considering a career in the health field. The *University of Alaska Directory of Alaska Student Outreach and Recruitment Programs* was prepared for the AVPH in 2004. The directory describes 58 programs targeting K-12 and college students to pursue careers in health care and biomedical sciences as well as science, technology, engineering and math. The guide includes training, curricula and specialized experiences for K-12 teachers.

*UA Health Programs: Pathways to Alaska Health Careers* (May, 2007) and the 2008 *Hot Jobs in Health*, published in conjunction with the Alaska Department of Labor and Workforce
Development, are two documents developed specifically for outreach to potential students—out-of-school youth and other adults as well as secondary students. The *Educational Pathways that Lead to a Career in Health Sciences* (2008) which was developed with the UA Office of Workforce Programs contains valuable career exploration information including recommended high school preparation and career pathways for a variety of health occupations.

The UAF CRCD Office of Health Programs sponsored several health-related residential summer camps for rural students from Summer 2003 through Summer 2010. Camp sessions were built on a college-level introduction to health course that explores careers in health, behavioral health and criminal justice. Students received help with math and communication skills needed to succeed in college. CRCD also offered the health course as the first step in a health-related Tech Prep program in several regional high schools. Through the camps and the Tech Prep courses, 228 high school students were reached from 2003 to 2010. In summer 2011 the health track was incorporated into the Upward Bound program offered by the Interior-Aleutians campus of CRCD.

**AHEC**

Outreach efforts received a huge boost with UA's successful grant proposal in 2005 to establish an Area Health Education Center in Alaska. Prior to that time, Alaska was one of the few states in the country without its own AHEC, although it did receive services from the AHEC administered by the UW School of Medicine. The Alaska AHEC is the only center administered by a School of Nursing in the country.

AHEC is a statewide university-health care partnership focused on strengthening the health workforce in Alaska across the spectrum—from career exploration to placement in a health career. Industry partners contributions are matched on a 1:1 basis by HRSA funds. Currently, the five regional AHEC centers are funded for a total of approximately $1.6 million in the following areas:

- Bethel – YK AHEC with the Yukon Kuskokwim Health Corporation
- Anchorage – South Central AHEC with Providence Health and Services Alaska
- Fairbanks – Interior AHEC with Fairbanks Memorial Hospital
- Sitka – Southeast AHEC with Southeast Alaska Regional Health Consortium
- Barrow – Northwest AHEC with Ilisagvik College

One of the AHEC focuses is to engage Alaskans into health careers and guide them into the workforce. Over the past three years of funding (September 2008 through March 2011), AHEC had provided the following career guidance/exploration experiences. Participant numbers may be duplicated.
<table>
<thead>
<tr>
<th>Activity</th>
<th>Participants over the past three years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Shadow/Work Experiences, in partnership with host institutions and area clinics</td>
<td>645</td>
</tr>
<tr>
<td>Speaker’s Bureaus, in partnership with targeted school districts. The bulk of programming focuses on grades 9-12</td>
<td>6,341</td>
</tr>
<tr>
<td>Mini-Medical School, co-sponsored by WWAMI medical program, offered each Fall in either Anchorage or Fairbanks, and open to the general public</td>
<td>450</td>
</tr>
<tr>
<td>Resource Kit for Guidance Counselors, designed to assist key K-12 staff in facilitating youth into health career</td>
<td>68 packages each year</td>
</tr>
<tr>
<td>Introduction to Health Careers Dual Credit Course distance delivered in partnership with the UAF Kuskokwim Campus, and funded in partnership with the Alaska Mental Health Trust Authority</td>
<td>66</td>
</tr>
<tr>
<td>Health Occupations Students of America (HOSA) Club</td>
<td>402</td>
</tr>
<tr>
<td>Boys &amp; Girls Club Health Career Awareness - This activity started in Year 3 and is co-funded with the Alaska Mental Health Trust Authority</td>
<td>905 participants over two years in 32 presentations</td>
</tr>
<tr>
<td>U/DOC Della Keats - SC AHEC assists UA, WWAMI with student selection, job shadows, and CPR/1st Aid</td>
<td>55</td>
</tr>
<tr>
<td>Outreach at career fairs</td>
<td>3,446</td>
</tr>
</tbody>
</table>

In addition to its pipeline programs, Alaska AHEC provides clinical rotations for a broad array of health professions students including: nursing (AAS, BS, MS), medical, medical residents, dental, pharmacy, optometry, social work, speech pathology, radiology, med lab, dental hygiene, paramedic and physical therapy. In the 2008/11 funding period, 2,850 separate rotations serving 2,419 non-duplicated health students occurred in rural areas or with underserved populations. In a survey of 317 rotation completers in 2011, 60% indicated that they were likely to seek employment in a medically underserved area or with a medically underserved population after completion of their educational program.

AHEC also provides continuing education opportunities for the state's rural health care workforce. In 2010, AHEC supported over 6,000 contact hours of CE/CME and is developing a preceptor/mentor certification in coordination with University of Alaska Southeast and the Alaska Coalition of Educators to support health professionals entering service in rural areas.

A major new endeavor in this area for AHEC is the development and maintenance of the Clearinghouse for Alaska's Continuing Health Education system (CACHE), a web-based learning management system. When fully operational, CACHE will allow health professionals to locate and register for trainings and to create and manage an e-portfolio. Through CACHE continuing education providers can post their own events and view other scheduled trainings by category. Finally, health care facilities can utilize CACHE to locate trainings for their staff. AHEC recently completed a CE/CME needs assessment that is providing detailed information about continuing education topics and training modalities that will be most useful to health care professionals over the next several years.
CAHDRE

Another major outreach resource is the Center for Addressing Health Disparities through Research and Education (CAHDRE) a National Institutes of Health (NIH) Exploratory Center of Excellence established in 2010 at UAA. CAHDRE seeks to coalesce health pathway programs and to spark the creation of new programs and research capacity. The program is located in the UAA Office of Health Programs.

The first grant cycle targeted two of the national CAHDRE goals: administrative structures and education/research. The administrative track support has allowed the OHP to bring together various health-related faculty and staff to discuss health disparities and identify research methods for documenting the effects of these disparities. The Education/Research track activities to date have been primarily in supporting pathway programs that encourage and support students into health careers, especially those from underrepresented populations.

CAHDRE staff over the past several summers have managed the Della Keats program for 11th and 12th graders, which brings Alaska Native and other under-represented students interested in nursing careers onto the UAA campus for a six week program. The program serves students from all over Alaska. Students can participate in the program for two years, with the second year focusing on a research project. Seventeen students participated in the summer 2010 program. A gift from the WWAMI program underwrote total program costs for summer 2011 for 20 students. The program has plans to expand to 26 participants by 2012.

CAHDRE staff also wrote the curriculum for and administers the Health Explorers program, which was conceived by the allied health programs on the UAA campus and which focus on occupations in that area of health care. Centered in the Anchorage School District, the program introduces students to careers through exploration tours, field trips and case studies. In summer 2010, 28 ninth-grade students participated; in summer 2011, 20 students were anticipated for each of two camps.

CAHDRE is concerned with establishing and maintaining an accurate student tracking system that will allow the university to determine the effects of these and other pathway programs. Currently, there is no adequate student follow up system that determines what happens to students who have completed the programs; for example, whether or not they matriculate into a UA or other postsecondary health career education program. CAHDRE has begun working with the Alaska AHEC to develop a tracking model. Model development will include coordination with the UA Institutional Research Office as well as the Alaska Department of Education.

Other Allied Health Initiatives

The Denali Commission, HDEP and HEAT programs described above all focused on developing or expanding access to certificate or associate degree level allied health programs.
within the UA system. But the "grow our own" philosophy also included careers for which a bachelor or higher level of education was needed. New programs or new program access opportunities for this more advanced education were developed across all health care sectors. The following fall under the allied health umbrella.

**Public Health**

Prior to 2006, Alaskans who did not wish to relocate for educational purposes could access an MPH program through either Loma Linda University or the University of Hawaii, both of which offered a satellite program in the state. In the decade of the 1990s, 106 MPH degrees were awarded to Alaskans by these two institutions. To better meet public health needs in the state, the university initiated a distance delivered Master's in Public Health and began the accreditation process in 2006. The program received initial five-year accreditation in 2009 from the Council on Education for Public Health (CEPH).

The Alaska program was among the first totally distance-delivered programs in the country to be accredited. From two full time faculty serving 30 students in 2006, the programs has grown to 110 fully-accepted students and six full-time faculty in the 2010/11 academic year. Most students are mid-career level who enroll part-time and take between three and four years to complete. Since 2005, the program has graduated 45 students and averages between 6 and 12 new graduates per year.

The MPH program emphasizes northern and circumpolar health issues, which has made it attractive to professionals outside of Alaska, including Canada. Within Alaska, about half of the students are from the Anchorage bowl area, with all of the other geographic regions of the state being represented.

**Nutrition**

Until recently, there was no academic program leading to registered dietician in Alaska, although the university did support five Commission on Academic and Dietetic Education (CADE) approved internships per year for students who had completed the academic coursework elsewhere.

In 2005, recognizing that Alaska was facing growing nutrition-related problems, including rising rates of diabetes, particularly among Alaska Natives, and obesity among the general population, the SWHP commissioned a statewide assessment of post-secondary nutrition education needs in Alaska. Respondents to the assessment rated additional training for registered dieticians as the highest need. The assessment also found that the demand for trained dieticians greatly exceeded the supply of the 4 or 5 that graduated annually from the Alaska internship and
that employers must recruit from out of state. The needs assessment and planning for new degrees in this area were supported by HRSA.

Based on this assessment, UAA developed two new bachelor-level degrees, a BS in nutrition and a BS in dietetics. The latter degree leads to certification as a registered dietician, once a CADE internship is completed and the candidate successfully passes a national exam. The degree was first offered in Spring 2011 and currently has 31 students enrolled. The didactic portion of the program is delivered on-line, with clinical experiences supervised by a local preceptor in the student's community. The degree is accredited by CADE, which limits enrollment to the number of approved clinical slots.

The Nutrition BS, which was inaugurated in 2010, has a less rigorous scientific curriculum and is directed more at a community and public health nutrition education focus. Enrollment in the program has greatly exceeded expectation—90 students in the past academic year rather than the anticipated 25. Participating student in this program come primarily from the liberal arts and the university is currently reconsidering this degree. Admission to the program was frozen in 2011, pending further study. One possibility is to promote the nutrition minor and perhaps offer it statewide through distance delivery.

Occupational Therapy

After consideration of options for training Alaskans for careers in Occupational Therapy the university determined that collaboration with an existing program in the Lower 48 was the most cost-effective option. In 2008, UAA partnered with Creighton University to admit up to 10 Alaska students annually into a distance delivered Doctor in Occupational Therapy program.

Alaska AHEC was to provide the necessary clinical rotations to rural/underserved sites. However, it was discovered that rural facilities in Alaska did not have the OT supervision needed to meet accreditation criteria; thus, no students were placed in rural settings. AHEC staff met with Creighton faculty in March 2011 and agreed to implement a pilot program for Fall 2011 which will place students for week-long rotations to rural sites with a PA or other provider. Three sites are currently available. Under the funding cycle beginning in 2012, Alaska AHEC proposes to expand rural preceptor sites for OT.

Pharmacy

The model for OT expansion, which involved collaboration with an outside university, was also utilized to expand access to Pharmacy education. In 2010, the SWHP retained a consultant to explore potential strategies for a pharmacy educational program for Alaska. The consultant explored several models—seeking satellite status from an existing program, hosting a
distance-delivered program or establishing a School of Pharmacy in the UA system. The resulting report laid out in detail the steps to be taken and resources needed to establish an in-state school, which were considerable.

After reflection on the report, the UA system decided to enter into a collaboration with Creighton University School of Pharmacy and Health Professions (SPAHP) to offer a distance educational pathway leading to Doctor of Pharmacy degree (PharmD) from Creighton University. The program will allow students to remain in place geographically for a significant portion of the four professional years required for the pharmacy degree. SPAHP will reserve five seats each year in the entering distance education pharmacy class. These five seats for first-year distance students are guaranteed for UAA/UA students or Alaska residents who meet the eligibility criteria and other admission requirements for the program. The first Alaskan students entered in Fall 2011.

**BSHS track expansion**

UAA Anchorage has been offering a bachelor degree in health science (BSHS) for several years as a track into the Physician Assistant program, which will be described later in this report. However, enrollment in the degree was limited by the number of slots that were available in the PA program.

In 2010, the university began developing two additional tracks, Health Promotion/Health Education and Pre-professional. Completion of the Health Promotion/Education track will prepare the student to sit for the Certified Health Educator exam. The Pre-professional track will prepare students who wish to pursue advanced degrees in pharmacy or physical/occupational therapy.

The Allied Health Alliance was instrumental in developing the new tracks in a 2 x 2 model, which allows close articulation between allied health associate degree programs and the BSHS. The necessary curriculum has been developed and the two new tracks have been approved through the UA curriculum development process. Final Board of Regents approval will be sought in Fall 2011 or early 2012. The new courses developed for the tracks form the basis of a minor in Public Health, which will begin to be offered in Fall 2011. UAA is actively recruiting tenure track faculty to support the new tracks and will begin offering the tracks in Fall 2012, assuming BOR approval.

**Health Academic Plan**
In 2006, AHA partnered with deans and directors of other health programs to form a Health Programs Alliance charged with developing general principles and goals for health program planning across the UA system. The resulting *Health Academic Plan* was accepted by the Systemwide Academic Council (SAC) on April 24, 2007. In accepting the plan, SAC indicated that it "found great value in what the plan represents—the first discipline-focused inter-MAU academic plan of this magnitude done in the UA system." (SAC April 24, 2007 memo). The plan encompasses the following program areas:

- Allied Health
- Medicine
- Nursing
- Public health
- Behavioral Health
- Other Health Professions
- Health Care Administration

The plan calls for deepening partnerships with industry and other stakeholders and evolving with them priorities for health programs. The plan also addresses increased support for students and for distance education at all levels. Finally, the plan looks to the development of program Centers of Excellence in the UA system.

The academic plan identified several key education and training programs that Alaska lacked at the time: pharmacist, PT/OT, Speech Pathologist, dentist, doctoral education in advanced nurse practice, stand alone physician and PA education, respiratory therapist and physical therapy assistant. Since 2007, most of these areas have received attention. As described above, access to advanced degrees in pharmacy and OT have been provided through cooperative agreements with other universities and the UAA SON is proceeding with the development of a doctoral degree. Physical Therapy Assistant program has been developed under the Denali Commission funding. Providing more medical education in-state will be covered below.

The Health Plan addresses three internal processes that needs attention. First, sustainable base funding must be attained for core functions and critical programs that are now fully or partially supported by soft or temporary sources such as federal/state grant funds or the Vocation Technical Education Program (VTEP) funding. Second, the system needs to develop and support an infrastructure to maintain the collaboration and coordination achieved through Allied Health and Behavioral Health Alliances. Finally, a mechanism should be developed to allow policy recommendations from these two groups to be forwarded to and considered by university leadership, including the President and the BOR.
Data

In carrying out its planning duties, the Health Programs Alliance identified several barriers to developing a functional academic plan. Chief among them was the issue of incomplete, inaccurate and inconsistent data about students, programs and industry workforce needs.

The AHA had begun to address the student data issue in 2004 with a data base developed for the Denali Allied Health programs. The data base, which has been maintained by program staff to date, has the following information by program for each participating student: name, community, courses completed, expected/actual date of graduation, certification eligibility and expected/current employer. The system supplies annual summary data by program and totals on the number of students participating, number of completers and number of communities served. The data base provides a wealth of information to program planners and evaluators that is not available for any other substantial group of students in the UA system.

As part of the EAHP program described above, a pilot project was conducted with the UAA Office of Institutional Research to determine if success and persistence data could be collected by that office from official BANNER records. Although the pilot did not yield as much data as does the Denali data base, it did provide useful information. A chief advantage of the model piloted is that once set up, the information can be readily pulled by IR staff and does not require additional program resources.

The issue of better workforce data began to be addressed—again in 2004—with the first study of vacancy rates across health occupation in Alaska, conducted by the Alaska Center for Rural Health. When ACRH assumed the functions of Alaska's AHEC in 2005, it carried out the vacancy study in 2007 and again in 2009. The planned 2011 study has been deferred until 2012 due to staff changes at AHEC, but it is anticipated that the study will be repeated every two years in the future.

Funding for the latest—2009—study was provided by the Alaska Mental Health Trust Authority, Alaskan's for Access to Health Care (ACCESS), University of Alaska Fairbanks Tanana Valley campus Telemedicine program, and University of Alaska Anchorage Community and Technical College (CTC) and School of Nursing. The study targeted 93 occupations and gathered information from 764 or 71.8 percent of the state's 1,476 health occupations employment sites. State rates for primary care occupations as reported by the study ranged from...
12.9 percent (community health aide/practitioner) to 37.4 percent (pediatric nurse practitioner). Other double digit rates included occupational therapist and physical therapist at 22.8 and 15.8 percent respectively. Though registered nurses had a comparatively moderate vacancy rate at 10.1 percent, this relatively large profession was calculated to have over 320 vacant positions.

The 2009 Vacancy Study provided valuable demand information to the Alaska Health Workforce Coalition as it developed the Alaska Health Workforce Plan in 2010. The vacancy study information was rounded out through a major cooperative effort among the UAA Office of Health Programs, the Research and Analysis Section of the Alaska Department of Labor and Workforce Development and the Alaska Department of Health and Social Services, resulting in an Alaska Occupational Forecast 2006 to 2016, Vacancy Rates and Supply Data-Health Occupations that not only formed the basis on which the workforce plan was developed but continues to inform efforts at plan implementation.

**Behavioral Health**

The second major occupational grouping to receive renewed attention by the UA system was behavioral health. An early (2002) inventory of UA health certificates and degrees listed nine in behavioral health, ranging from a certificate in Rural Human Services to master's degrees in psychology and social work. The combined enrollment in these programs in 2001 was 284, with 80 graduates of which more than half were in social work. The scope and size of the existing programs appeared inadequate to meet Alaska's mental health needs.

To spark increased activity in the area, the UA Statewide Health Programs commissioned the Western Interstate Commission for Higher Education (WICHE) to assess the status of the behavioral health workforce in Alaska. The WICHE status report was completed in March 2004 and was closely followed by a Behavioral Health Workforce Conference in May of that year. The conference was co-sponsored by the university, the Alaska Mental Health Trust Authority (The Trust), the State of Alaska Division of Behavioral Health and WICHE.

*Behavioral Health Workforce Initiative/Behavioral Health Alliance*

Following the conference, WICHE facilitated a meeting in 2005 of faculty and staff from UA behavioral health programs across the system. The group examined need, future demand and current efforts to educate professionals. Out of these discussions, two organizational
structures came into being that have over the past six years led to a blossoming of efforts to train
and sustain the behavioral health workforce of the state.

The first of these structures is the Alaska Behavioral Health Workforce Initiative (BHIP)
Partnership, a funding collaborative composed of the University of Alaska, The Trust and the
Alaska Division of Behavioral Health. In the four years following the initiation of BHIP, $5
million in new funds had been directed at behavior health programs: $2.3 million from the Trust,
matched by $2.3 million from the university and with $400,000 from the state. In October 2007,
the Initiative received recognition from the Annapolis Commission on the Behavioral Health
Workforce for Innovation in Workforce Development. The Initiative provided funding for most
of the program development described below.

The second structure which came about through the Conference and subsequent all-UA
meeting was the Behavioral Health Alliance (BHA). Modeled after the successful Allied Health
Alliance, the BHA is a cross-MAU interdisciplinary task group formed to identify issues
concerning behavioral health programs in the UA system and to work collaboratively to enhance
communication, coordination and collaboration between and within academic disciplines.
Participants include deans, directors, and faculty from all three University of Alaska MAUs.
BHA allows UA to respond as one organization to industry regarding plans for behavioral health
professional education and to provide a coordinated approach to industry to solicit feedback and
help prioritize programs for development. In recent years, BHA has included participants from
relevant state agencies.

BHA established three areas for focus: increasing distance education capacity in
behavioral health programs, attention to cross-cultural knowledge and children's mental health.

Distance Education/Social Work

BSW

With funding from the BHIP, the social work program at UAF expanded its BSW to
provide a cohort/extensive degree programs for rural Alaskan Native students, the majority of
whom are employees of regional health corporations. The delivery model, which combines
intensive, condensed course instruction on site in Fairbanks for several days at the beginning and
end of the semester supplemented by audio-conference instruction throughout the semester, is
based on the model used successfully for many years in the UAF Rural Human Services
Certificate and Human Services associate degrees. In fact, many of the students participating in
the cohort BSW model are graduates of these feeder programs. The program graduated its first
two students in 2006. By Spring 2010, the program had graduated nine students and had 29
active students.
MSW

UAA Social work faculty in 2004 pioneered the use of on-line clinical education to behavioral health graduate students and professional level behavioral health practitioners by developing and delivering two courses: Fetal Alcohol Spectrum Disorders and Clinical Management of Depression. At around the same time, the faculty began work on a distance-delivered Masters of Social Work (MSW).

The distance MSW is an extension of the UAA’s MSW on campus program and is accredited by the Council on Social Work Education. It is open to all students in the state, but students from the Anchorage Bowl area and Mat-Su are admitted on a space-available basis as they also have access to the on-campus program. The program utilizes an alternative scheduling format consisting of intensive classroom sessions presented in short time blocks—typically two days at the beginning of each course—followed by periodic class meetings available by teleconference and on-line throughout the semester. The program utilizes a cohort model, with new cohorts admitted every two years. The first cohort of 17 students graduated in 2007. Ten additional students graduated in Spring 2009. Thirty five students were slated to graduate in Spring 2011.

A 2009 follow up of graduates to that date found that 21 of the 27 were employed in 15 different employer situations, from private practice to state health and welfare agencies to tribal social services.

Cross Cultural Knowledge

PhD In Psychology

To respond to the need for advanced behavioral health clinical practitioners with sensitivity to the unique cultural context of Alaska, UA established a PhD in Clinical Community Psychology with Rural, Indigenous Emphasis in 2006. The program is jointly administered by the Departments of Psychology at UAF and UAA. All program courses are co-taught across campuses using video conferencing thus utilizing distance methodology to
simultaneously deliver the program at two sites: Anchorage and Fairbanks. The program is in the process of preparing its self study to apply for accreditation through the Commission on Accreditation of the American Psychological Association (APA) and is scheduled to have its Accreditation Site Visit on November 21-23, 2011.

The first students entered the program in Fall, 2006. Nine new students were admitted in Fall 07. By the 2008/09 school year, 23 students were enrolled. All students are encouraged to be full time.

Clinical Psychology Internship

The clinical psychology internship program in Alaska is an additional way of increasing the number of behavioral health professionals with a knowledge of the conditions and cultures of the state. UA's Ph.D. Program in Clinical-Community Psychology, The Trust and the Department of Health and Social Services, with assistance from the WICHE Mental Health Program, collaborated in 2009/10 on supporting a group of interested industry partners to explore the options. The result is the Alaska Psychology Internship Consortium (AK-PIC). AK-PIC represents the collaborative effort of five Alaska agencies to share resources and faculty for the purpose of providing a diversified educational program for pre-doctoral psychology interns. Prior to the AK-PIC effort, only one accredited internship program which took applicants from a national pool existed in Alaska.

AK-PIC was designed to prepare interns to meet the unique challenges of practicing psychology in rural and remote settings and to ensure clinical competency in working with Alaska’s various cultural groups. The consortium includes the following sites: Alaska Family Medicine Residency, Providence Hospital; Southeast Alaska Regional Health Consortium (SEARHC); Hope Counseling Center; Norton Sound Health Corporation; and Alaska Psychiatric Institute (API). The first five slots were offered to prospective interns from UAF and UAA psychology programs for the 2011/12 internship year. The consortium will support seven slots for the 2012/13 year. It is seeking accreditation of the internship from the American Psychological Association.

Alaska Rural Behavioral Health Training Academy

The Alaska Rural Behavioral Health Training Academy was established and funded by BHIP to meet the on-going continuing education and professional development needs of persons who provide behavioral health services to individuals, families and communities in rural Alaska. The mission of the Academy is to collaborate with Alaska communities to train rural behavioral health care providers by blending evidence based practices with traditional wisdom.

The academy trainings have included Child Assessment and Treatment of Trauma, Assessment and Treatment of Dual Diagnosis Adults and Clinical Supervision using Tele-health.
A main focus, however, has been on "cultural attunement" for behavioral health providers working with rural residents. "Cultural Attunement" is defined by Academy staff as the "process of being in tune to the unique characteristics of each patient that requires active and ongoing practice and attention. In broad terms, attention to cultural differences as they relate to values and lifestyles will have an impact on both the access and quality of services received." (ARBHTA session at the Best Practices Conferences Anchorage, 2009: Cultural Attunement is more than a “rural” awakening). Academy trainings actively involve Alaska Native Elders and emphasize the importance of good communication and attending to the whole human being in the context of culture.

The Academy was awarded a three-year grant in 2008 from the Robert Wood Johnson to provide a workplace-based learning (WBL) program for entry-level Behavioral Health Aides in the Norton Sound region of Alaska. Over the three year project period, 13 learners were introduced to the WBL program and learning community. The average cohort size was seven at any one time. Three completed the full WBL program, passing seven academic courses totaling 18 university credits along with regular WBL activities. All three program completers have indicated plans to continue their formal education by articulating into the UAF associate degree in Human Services.

In July, 2011, the Academy was merged with the Trust Training Cooperative, administered by UAA Center for Human Development and funded by The Trust. The merger is intended to consolidate all non-credit and continuing education efforts for behavioral health providers into one entity.

Children's Mental Health

The final BHA emphasis area is children's mental health. A newly-developed Graduate Certificate in Children's Mental Health, approved by the UA Board of Regents in June 2011, prepares graduate degree program students and post graduates to practice children's mental health. The certificate coursework incorporates principles and methods from multidisciplinary sources to assist in the mental health treatment of children and their families. Certificate completers gain competencies for work in education, social work and psychology jobs that specialize in children's mental health.

Other Behavioral Health Activities

In addition to the three areas slated for priority attention by BHA, the following behavioral health initiatives have received attention and resources over the past decade.

Human Services Career Ladder
The university together with tribal health organizations has developed a Human Services career ladder that articulates programs from the first credits in Rural Human Services (RHS) up through a master's degree in social work or community psychology. An employee can advance through the following steps, after having completed the requisite education:

<table>
<thead>
<tr>
<th>Position</th>
<th>Required education</th>
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<tbody>
<tr>
<td>Behavioral Health Aid I</td>
<td>12 credits of RHS coursework</td>
</tr>
<tr>
<td>Behavioral Health Aid II</td>
<td>RHS certificate</td>
</tr>
<tr>
<td>Behavioral Health Aid III</td>
<td>Human Services (HUM) Associate Degree</td>
</tr>
<tr>
<td>Behavioral Health Aid IV</td>
<td>BSW or bachelor in psychology</td>
</tr>
<tr>
<td>Behavioral Health Clinical Supervisor</td>
<td>MSW or master's in community psychology</td>
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</table>

**Joint UA/AMHTA/HSS Position**

In 2008, the BHIP partners established a position that served as a point of contact among the three agencies. In Fall 2011 the position assumed responsibility for coordinating the efforts of the Alaska Health Workforce Coalition to implement its *Action Agenda* for workforce development. The position is currently funded by UA and The Trust.

**Trust Training Cooperative**

Also in 2008, The Trust funded the Trust Training Cooperative (TCC) at the Center for Human Development at UAA. The TCC coordinates and provides training and career development for Alaska's workforce serving Trust beneficiaries. In addition to its own training events, the TCC disseminates information on other opportunities using a web-based Learning Management System. The LMS also allows learners to document and keep track of progress and performance across all types of training activities. As mentioned above, the TCC will absorb the functions of the Alaska Rural Behavioral Health Training Academy, providing a single portal for non-credit professional development for behavioral health practitioners.

**University of Alaska Behavioral Health Programs Catalog**

The catalog was published in 2007, and provides a comprehensive description of certificates, degrees, training opportunities and student services available in behavioral health. The catalog provides valuable, one-stop information on UA behavioral health resources.

**Pipeline Materials and Events**

The health career exploration and advising materials described under Allied Health also apply in most cases to behavioral health. These materials have greatly expanded the health career information available to high school students, secondary and postsecondary academic advisors and counselors and the general public.
Many of the exploratory activities and camps for K-12 student described under AHEC and CAHDRE above also include information on behavioral health careers.

**Direct Care Worker Competencies**

A recommendation of the Direct Care Services sub-group of the 2003 University/Industry Allied Health Forum described on page 4, above, was that core competencies be developed for workers in that occupation.

Although action on this recommendation was some time in coming, in 2007 the Credentialing and Quality Standards Subcommittee of the Alaska Mental Health Trust Workforce Development Focus Area, in collaboration with the University of Alaska and the Alaska Department of Health & Social Services, sponsored the development of the Alaskan Core Competencies for Direct Care Workers in Health & Human Services. The project was designed and staffed by the WICHE Mental Health Program and the Annapolis Coalition on the Behavioral Health Workforce. Version 1.0 of the competencies was completed and published in January, 2010.

The Alaskan Core Competencies are organized around 10 broad competency categories, which contain a total of 42 individual competencies. The competencies are relevant to providing services in all geographic regions of the country, but explicitly incorporate skills that are essential in rural and frontier areas where direct care workers may function with limited support or supervision and face unique challenges.

**Workforce Development Conference**

The BHI partners sponsored a second workforce development conference in September, 2009, to address home and community based health and behavioral health services. The conference provided tracks in Education and Training, Recruitment and Retention, and Systems. Conference participants were introduced to the Alaska Core Competencies for Direct Care Workers, the AK-PIC clinical internship and ARBHTA, among other topics.

**Medical Education**

A major event in the expansion of medical education in Alaska over the past decade was the creation of the Alaska Physician Supply Task Force, co-sponsored by the University of Alaska and the Alaska Department of Health and Social Services.
The first goal identified by the task force was to increase the in-state production of physicians by increasing the number and viability of medical school and residency positions in Alaska and for Alaskans. The report called for increasing the number of slots in WWAMI—Alaska's medical school access through the UW School of Medicine—from 10 to 30. It also recommended that the number of Alaskan residencies in family practice and appropriate additional specialties be increased. As a result of the report, the 2007 Alaska Legislature increased funding for the WWAMI program, doubling the number of Alaskan slots from 10 to 20.

**WWAMI Medical Program (Washington, Wyoming, Alaska, Montana, Idaho)**

<table>
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<tr>
<th>SWHP</th>
<th>Physician Supply Task Force</th>
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<tbody>
<tr>
<td>WWAMI Expansion</td>
<td>PA Expansion</td>
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<tr>
<td>Medical Residencies</td>
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Alaska's WWAMI students complete their first year of medical school, which includes courses in basic sciences and an introduction to clinical medicine, at the University of Alaska Anchorage. Students from all five WWAMI states attend second-year courses at the University of Washington School of Medicine in Seattle. The third and fourth years of the medical school curriculum are comprised of "clerkship" rotations in the various medical specialty areas. These clerkships may be taken in any of the five WWAMI states. Students who choose the "Alaska Track" can take nearly all of these clerkships in Alaska. There continues to be some consideration to providing the second year of the program in Anchorage, thus establishing an all Alaskan program. UW current expansion plans would establish the second year in several sites before considering an Alaska expansion.

**Physician Assistant**

While WWAMI expansion may be some time in the future, the UW-based Physician Assistant program has successfully transitioned almost all academic and clinical work to Alaska. In the past, the PA program—which is operated by MEDEX Northwest—actively recruited Alaskans and offered clinical training in Alaska, but students completed their year of didactic study in Seattle. In the early 90's, MEDEX received funding to launch a program in Sitka, but the program was discontinued after one year due to lack of on-going state and federal financial support. In 2007, the Alaska PA community and the university began exploring the possibility of offering the full program once again in Alaska. State general funding of the program was
achieved late in the 2009 Legislative Session. Additional support comes from VTEP and from partial tuition transfer from UW.

MEDEX/UAA were able to set up the Alaskan-centered program fairly quickly, using the existing first year curriculum and the second year clinical sites. Students still do spend the first quarter of the program in Seattle, but are in-state for the remainder of the two-year program. All faculty in the program are UW faculty; UAA provides program administration. Students are co-enrolled at both UAA and UW for the second year.

The first class of 19 students entered in September 2009; 15 members of this first cohort graduated in August, 2011. A second cohort of 15 entered in Fall, 2010 and 22 are entering as the Fall 2011 cohort.

Medical Residencies

The Physician Supply Task Force also recommended expansion of residency opportunities in Alaska, noting that professionals often chose to practice in areas where they had completed a residency program. The UA SWHP and The Trust in 2009 jointly funded a feasibility study and business plan for an Alaska Psychiatry Residency. The study was developed with the Alaska Psychiatry Residency Steering Committee, a coalition of government agencies, UA, hospitals and clinicians united in a mission to address the critical shortage of psychiatrists in Alaska. The residency would focus on primary care consultation, telebehavioral health and remote/rural consultation to prepare a psychiatrist to meet Alaska's challenges. (pp. 4-5 Interim Report).

Alaska Native health organizations, Fairbanks Memorial Hospital, Providence Health and Services Alaska, Anchorage Community Health Services and Alaska Psychiatric Foundation have pledged financial support. Providence has agreed to be administrative host for the residency. Partner institutions and other mental health facilities around the state have indicated that they would provide training sites. Although the residency is not yet a reality, the Alaska Health Force Coalition Action Agenda, adopted in September 2011, indicated that The Trust and the psychiatric partners will work to secure funding from the State of Alaska for the residency by May 2012. If this should occur, the residency should be in place by 2013.

Alaska's medical community is also considering a residency in family practice. The Health Force Coalition Action Agenda states that Fairbanks Memorial Hospital, the WWAMI Medical Program and the Pacific Northwest Medical University of Health Sciences will conduct a feasibility study by January 2012 to establish an accredited family practice residency in Fairbanks.
Telehealth

In order to extend the reach of the limited number of medical staff practicing in Alaska, the state has turned to telemedicine and has developed with heavy federal support the largest telemedicine system in the world. The Indian Health Service, Department of Defense, the Veteran's Administration and the Coast Guard have invested approximately $40 million to bring voice, teleradiology, video, telepharmacy, and store-and-forward telemedicine to 248 sites around the state.

In 2002, the UA Statewide Health Programs and the UAA Center for Human Development commissioned a summative evaluation of the Alaska Federal Health Care Access Network (AFHCAN), funded by a direct Congressional appropriation of $500,000. The evaluation gathered information from key informants, usage statistics, Medicaid reimbursements and health organization surveys and concluded that "telemedicine using the AFHCAN resources did increase rural and remote access to health care." (Evolution and Summative Evaluation of the Alaska Federal Health Care Access System, p. 8). The report further concluded that AFHCAN had facilitated referrer-physician communication, enhanced patient education, improved quality of care and increased satisfaction of both providers and patients.

Although the final evaluation report was not completed until November, 2004, the findings were shared at the International Telehealth Conference: Innovation and Evaluation, held in Anchorage in March of that year. The conference was hosted by the UA Statewide Health Programs.

Health and Biomedical Research

Health and biomedical research was one of UAF’s priorities in the 1960s and early 1970s. Highlights of this period included the establishment in Fairbanks in 1962 of the Institute of Arctic Biology (IAB) and the construction at UAF in 1967 of PHS’s Arctic Health Research Building to house its research Center. IAB’s early research focused on human physiology, wildlife health, and zoonotic diseases, and was supported by a core NIH institutional grant. This research effort was enhanced when the WWAMI program was originally established in 1971 at UAF. However, by the early 1970's, IAB’s emphasis in research began to shift from environmental physiology to ecology. In 1973 the PHS Arctic Health Research Center closed, further reducing the campus’s involvement in biomedicine and health. The NIH core grant lapsed in the 1982 and institutional interest in biomedicine virtually disappeared from the Fairbanks campus when WWAMI was discontinued in 1987 due to financial constraints. With the re-opening of the WWAMI program in Anchorage in 1989, interest in biomedical research gained ground at UAA, but was not adequately resourced.
Much of the 80s and early 90’s were very difficult years financially for the entire UA system, resulting in major administrative changes and significant reductions in staff, faculty, students and programs. Diminishing resources severely hampered the university's health/biomedical research capacity as well. For example, between 1985 and 2004, no new biomedical research laboratory buildings were built anywhere in the UA system.

The new millennium signaled a new era for health and biomedical research in Alaska. In very short space of time, due in part to the guidance and promotion of the AVPH, UA was successful in garnering not one but four significant federal grants designed to build up its health/biomedical research resources and increase its capacity to become more competitive for external funding.

**SNAP:** In 2000, the UA system received a $7.8 million, five year grant under the Specialized Neuroscience Research Program (SNRP) through the National Institute of Neurological Disorders and Stroke (NINDS), National Institute of Mental Health (NIMH), and the National Center for Research Resources (NCRR). The grant funded the development of the Alaska Basic Neuroscience Program (ANBP).

ANBP strives to expand and stimulate basic neuroscience research with a focus on neuroprotection and adaptation at the cellular and molecular level and related regulatory mechanisms at system levels. The interdisciplinary research effort of the ANBP constitutes an integral part of the UAF initiative on health disparities of Native Alaskan and arctic populations. It is a key effort in achieving UAF's goal to function as a national center of excellence and international leader in arctic research.

**EPSCoR:** Alaska, which became eligible to apply for NSF Experimental Program to Stimulate Competitive Research (EPSCoR) support in 2000, received its first Research Infrastructure Improvement (RII) award in 2001. Alaska EPSCoR is dedicated to improving Alaska's research capacity by distributing NSF and state funds. EPSCoR supports undergraduates, graduate students and faculty members throughout the University of Alaska system and conducts active K-12 education, public outreach and workforce development programs. Although the funding supported research in all areas, the first two phases—2001/2004 and 2004/2007— included two research focus areas and activities that impact health:

- Integrative Approaches to Environmental Physiology
- Alaska Genome Diversity Initiative

The first two grant cycles also provided core support for bioinformatics. A UA research team is putting together a proposal to fund Alaska EPSCoR from 2012-17. The proposal will be submitted to the National Science Foundation in fall 2011.

**COBRE:** The Center for Alaska Native Health Research was also established in 2001 through a five-year grant awarded to UAF by the National Institutes of Health, National Center for Research Resources. In 2007 the NIH renewed the center’s grant for $11 million for another
five years to build on CANHR’s research findings on obesity and its relationship to diabetes and cardiovascular disease among Alaska Native people.

CANHR partners with the Yukon-Kuskokwim Health Corporation and communities in Alaska. Part of the Institute of Arctic Biology, CANHR is the only Center of Biomedical Research Excellence (COBRE) in the state.

**BRIN/INBRE:** In October, 2001, The University of Alaska was awarded one final grant to build biomedical research and its supporting infrastructure in Alaska. The grant award, totaling $6 million over a three-year period, was funded through the Institutional Development Award (IDeA) Program of the National Institutes of Health (NIH).

The Alaska Biomedical Research Infrastructure Network (BRIN) supported by the grant linked the University of Alaska Fairbanks and the University of Alaska Anchorage with other institutions in the state. The purpose of the network was to build a self sustaining research base that would lead to competitive research applications from multidisciplinary research teams. BRIN transitioned into the IDeA Network of Biomedical Research Excellence (INBRE) at the end of the funding period. The new INBRE award covered the period from 2004 through 2009. The current grant extends INBRE to 2014.

Alaska INBRE links UA biomedical research to state-wide concerns about environmental agents and disease and to translational and clinical applications. Its 2009-2014 plan of work includes attention to the following questions: 1) What agents are threats to health? 2) Where are these agents and how are they dispersed? 3) How do they inflict damage? 4) What are the cellular and molecular defenses to stress and to insults from the environment? 5) How can this knowledge inform and guide local medical and public health practices in Alaska? Information from the Alaska experience may provide models for other sites in the nation, the circumpolar north and the seven other Arctic nations.

INBRE currently supports 18 faculty across all three UA MAUs. In the 20010/11 academic year, 105 students from undergraduate to PhD programs received support from the program.

In addition to research activity, INBRE supports faculty and students with travel and for scientific exchange. University of Alaska faculty members that are supported by INBRE funding are eligible for financial support for related travel to visit their research mentors and to have their mentors visit their labs. UA undergraduate and graduate level students sponsored by an INBRE-supported faculty member may apply for travel funds to attend appropriately related scientific meetings and workshops.
INBRE supports collaboration for many types of scientific exchange opportunities. Faculty, staff and students are welcome to apply for funding to bring speakers to Alaska for exchange opportunities.

INBRE also supports pipeline projects such as Alaska BioPREP. BioPREP is designed to engage 7th-12th grade students and teachers, in biomedical research projects that lead toward health careers. The program emphasizes Alaska Native/rural student participation. BioPREP begins with the intellectual rigor of scientific inquiry and then addresses the attitudes and social values conducive to learning science.

These capacity building grants have brought a total of $81.9 million to the university since 2000. This increase in capacity has allowed faculty to capture an additional $13.1 million in competitive awards from NIH and NSF for biomedical and health research. Because of this support, in the past decade UA has hired 23 new tenure-track faculty in biomedicine and related areas at UAA and UAF, and greatly augmented the undergraduate, graduate, and pre-professional programs in health and biomedicine.

The university has also developed the following resources to support its health/biomedical research agenda.

**UA Health Research Plan**

Hard on the heels of the explosion in federal support for building UA capacity for health and biomedical research, the Alaska State Legislature passed a joint resolution requesting "the Alaska Science and Technology Foundation and the University of Alaska to work with the U.S. Arctic Research Commission, the Interagency Arctic Research Policy Committee and the North Pacific Research Board, on behalf of federal agencies, to develop a joint research and development plan to help expand and diversify Alaska's economy, strengthen and maintain the health of state research institutions, and protect the health of Alaskans and the environment of Alaska" (HCS CSSJR 44).

In response to the resolution—known as SJR 44—the University formed the Health Research Task Force in summer 2002 and retained a consultant to assist it in developing a plan for health research. Representatives from each of the MAUs served on the committee, which also included the PIs of major health research initiatives and health/biomedical research faculty. The planning effort was supported by HRSA, as well as other federal sources.
The planning group found that while progress was being made in many fields, Alaska still had huge needs in health and biomedical research. The completed plan inventoried ongoing research and identified gaps in nine theme areas: biomedical, injury surveillance and prevention, health disparities, behavioral health, health services, disability, gerontology, maternal and child health and health research infrastructure. The group agreed that the research plan should set broad themes but not dictate the activities of individual researchers. The group also defined "research" broadly to include ongoing studies and activities.

The resulting document—*Health Research in Alaska*—contains recommendation in several areas, such as the conduct of research in the cultural context of Alaska and the need for partnerships. It strongest recommendation is for a greater investment in research for building infrastructure, extending broad-band connectivity to the health research community in Alaska and expanding advanced graduate and professional education programs.

**Biomedical Sub-Cabinet**

Subsequent to the report on health research, the UA President on the advice of the AVPH appointed a Biomedical Subcabinet in late 2007 as an advisory body to the President's Cabinet. The UA Biomedical Subcabinet works in alignment with applicable federal regulations, UA Regent Policies, and the Academic Master Plan.

The UA Biomedical Subcabinet serves as the steering committee for the INBRE Program. In additional the sub-cabinet provides guidance, advocacy, and assistance in ensuring the integrity of recommendations of the Biomedical Planning Group (see below). The sub-cabinet held its first meeting in February, 2008. Currently, the sub-cabinet members are the UAA Provost, the Vice Provost for Health Programs, the Associate Vice Chancellor for Research, and the Dean of the College of Health and Social Work, the UAF Executive Officer, the INBRE director and the UA VP for Academic Affairs

**Biomedical Planning Group**

The Biomedical Planning Group (BPG) was revitalized in June 2010 and charged with the building on the 2004 health research plan by identifying

- existing strengths in biomedical and health research in the UA system
- research areas in which UA can be a strong contender for external funding
- up to five strategic priorities for the next five years
- prioritized targeted state investments in health research and education

The charge was formally approved by the Statewide Academic Council in September 2010. The timeline called for the BPG to submit its completed plan to SAC in April, 2011 and for SAC to forward the plan to the BOR for its June 2011 meeting. However, planning has been delayed and the report has yet to be finalized as of Fall 2011.
Research Facilities

In the past ten years, UA has greatly expanded its health and biomedical research facilities. In a first effort to revitalize and improve UAF’s science laboratory space, the Arctic Health Research Building, which dates from 1973, was renovated in June 2002 with funding from the state and the federal capacity-building grants described above. This renovation created a state-of-the-art microbiology lab and a larger, more efficient lab support space, greatly enhancing research and academic programs. The building now houses laboratories and offices for the School of Natural Resources and Agricultural Sciences, and lab and office space for other UAF departments as well as extensive biosciences and geosciences libraries.

Also at UAF, the new 42,000 sq. ft. Biological and Computational Science facility, completed in 2006, incorporates facilities for laboratory animal care and holding, procedure rooms, on-site biological waste handling and administrative offices. The space serves as the central animal research and diagnostic facility for small arctic animals, birds and fish.

The newly-constructed State of Alaska Virology Laboratory building provides opportunities for collaboration between the state and university researchers in the areas of animal and human health. The building opened in June, 2009 on the UAF campus. The state lab occupies the ground and upper level of the 29,000-square-foot building and UAF occupies the basement level of the facility.

The new facility features special labs with equipment designed to protect researchers and the public from dangerous infectious diseases. The lab is equipped to handle new techniques in virus detection. It is connected through the basement and ground levels to the Biological and Research Diagnostics facility, providing collaboration opportunities for scientists within both organizations.

On the UAA campus, the Ecology Biomedical Health Facility added an additional 12,000 square feet of space. The Integrated Science Facility which opened in Fall, 2009, provides 112,000 square feet of new and renovated classroom and lab space on that campus.

The major addition to health-specific facilities for UAA, however, is the new Health Science Building, which opened in Fall 2011. The 80,000 square foot building is centrally situated between the university campus, Providence Alaska Medical Center and Alaska Psychiatric Institute. The building was designed primarily for teaching rather than research but adds some laboratory space. Beginning in the 2011/12 academic year, it will house the School of Nursing, WWAMI and selected allied health programs.

Vital Signs
Indirect support for UA research was provided by the TV series *Vital Signs*, produced and aired with HRSA funding in 2004 and 2005 to raise awareness of health issues in Alaska, emphasizing health research. Each one-hour show began with a produced segment on a specific health problem, followed by a discussion of the topic by health experts. The program—which received a Telly award and was nominated for a Northwest Emmy—expanded the knowledge of Alaskans about the importance of health research to their quality of life, thus potentially increasing public support for state research investments.

**Summary**

The events, activities and programs described above taken together represent a period of almost unprecedented growth and expansion in the University of Alaska's capacity to plan and deliver health programming. In the decade of 2001/2011, new state investments in health programs totaled $18.6 million: $10.4 million in one-time appropriation and $8.2 million added to base funding. Major federal grants helped to establish new organizations such as the Alaska Area Health Education Centers and Center for Alaska Native Health Research. New teaching and research faculty were added in numbers that had not been seen since the heyday of pipeline riches. New facilities came on line, including the Health Sciences Building in Anchorage and the Biological and Computational Science facility in Fairbanks, adding much needed classroom and research space.

And these investments have paid off. During the decade, UA experienced a 28.6 percent increase in enrollments in health programs and an 88 percent increase in the number of health-related degrees, certificates and endorsements awarded. When both certificate/degree seekers and health training course completers are taken into account, around 4,200 Alaskans are now enrolled in university courses in an academic year. UA has indeed become a major player in the Alaska health care industry—making significant contributions to the preparation of the health care workforce and to the production of new knowledge through research.

Although many people and organizations share the credit for this amazing growth, it is clear from the record that much of the impetus and support came from the Associate Vice President for Health/Statewide Health Programs, assisted in later years by the Office of Health Programs under the UAA Vice Provost for Health. Without the attention of these two positions, much of the progress may not have transpired or might have been delayed.

Growth and expansion took place across the board, as the following recap of major accomplishments demonstrates.

**Nursing:** Over the decade, the SON associate of nursing degree expanded from an on-site program at two locations admitting 96 students per year to 12 campuses admitting 223 students in the 2010/11 academic year.
Allied Health: Through the efforts of the Allied Health Alliance—led and supported by HRSA-funded staff—UA has developed strengthened its distance delivery capacity, created an Area Health Center network, expanded its outreach to the K-12 system, added suite of new programs, and completed a system-wide, interdisciplinary Health Academic Plan. From 26 programs in 2001, the university now offers 46 certificates/degrees in the allied health area.

Behavioral Health: Over the past decade, the UA system has experienced considerable growth in its behavioral health programs and resources, bolstered by a very active partnership with the Alaska Mental Health Trust and the Alaska Division of Mental Health. Internally, the BHA has provided the cross-MAU, interdisciplinary planning and coordination among behavioral health programs that the AHA has done for allied health programs. The university has doubled the number of certificates and degrees—from nine in 2002 to 18 in 2011. New degrees such as the PhD in Psychology with its rural, indigenous emphasis and new structures such as the Rural Behavioral Health Training Academy are preparing mental health professionals for the unique circumstances and challenges of practicing in Alaska.

Medicine: Securing state funding for an additional 10 slots in the WWAMI program has been a major step in addressing Alaska's physician shortage. Moving most of the first year of the MEDEX Physician Assistant program to Alaska also helps expand access to health care, particularly in rural Alaska. The planned residencies in psychiatry and family medicine can add capacity in these two important areas.

Health/Biomedical Research: From minimal funding for health and biomedical research at the beginning of the decade, UA has garnered over $80 million in federal capacity-building awards. These grants have built the infrastructure that supports an additional $13 million in grants to faculty members. A system-wide Health Research Plan provides guidance to faculty, including the new 23 research faculty that have been added over the decade.

As a perhaps fitting end to the decade, the UA Board of Regents at its June 2011 meeting approved a reorganization of health programs at UAA. The reorganization creates a College of Health at UAA that incorporates a WWAMI School of Medical Education, the School of Nursing and the School of Allied Health and acknowledges the increasing importance of health programs in the system. Although the college is located at UAA, it has a responsibility for delivering programs state-wide.

The challenge to the university in the next decade will be to sustain and build upon these accomplishments. As outlined in the Health Academic Plan in order to do so the university needs to address the issues of sustainable funding and support for internal coordination. A third
area not explicitly stated in the plan but raised both in the planning process and in interviews conducted for this report is the issue of accurate and adequate student data. Externally, UA will need the continued involvement and support of the many partners that is has garnered over the past ten years.

As mentioned above, the duties of the AVHP have been transferred to the UAA Office of Health Programs. Like the College of Health, the office has state-wide responsibilities although it is located at UAA. It is hoped that the office will have the resources and support required for it to maintain a system-wide presence and exert a statewide influence.

The concern for the future leads the evaluator to make the following recommendations:

*Recommendation 1:* Secure sustainable base funding for core functions and critical programs that are now fully or partially supported by soft or temporary sources.

*Recommendation 2:* Develop and support an infrastructure to maintain the collaboration and coordination achieved through AHA and BHA.

*Recommendation 3:* Establish and maintain a comprehensive and consistent student data base that will allow for tracking students from first contact to transition to employment.

*Recommendation 4:* Provide the necessary fiscal, human and policy support to the Office of Health Programs that will allow it operate effectively across the UA system and to maintain the close and collaborate working partnerships that have been established with industry and state and federal agencies.

The evaluator thanks all of the many people who contributed information and insights to this report.