

**PHASE TWO**

**ALLIED HEALTH CAREERS**

**Proposal to the Denali Commission**

**March 2005**



**University of Alaska**

**P.O. Box 755010  
Fairbanks, Alaska 99775-5010  
(907) 474-1970**

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## Executive Summary

With the first year of the Allied Health Training Project well underway, this proposal is a request for funding for Phase Two of the project. Nearly 290 trainees will have been involved in courses related to Phase One activities and this number is expected to increase significantly in Phase Two.

|                      | <b>Phase One Actual</b> | <b>Phase Two Projected</b> |
|----------------------|-------------------------|----------------------------|
| <b># of Trainees</b> | <b>288</b>              | <b>500</b>                 |

The field of allied health is unusual in that it encompasses many occupations and professions, with varying levels of shortage in each. Most are essential to the delivery of health care services, and new specialties appear with each advance in technology. In Alaska most are represented in small numbers, increasing the challenge of the postsecondary educational system to meet, but not overshoot, emerging demand.

Surveillance of allied health workforce demand in Alaska reveals continued shortages, especially in rural areas. The workforce is aging and increased rates of retirement are anticipated in the next decade. The Department of Labor has projected a trend of rapidly rising demand in many health care occupations, and the prospect that the over 65 population will increase dramatically.

Allied health workers completing University of Alaska programs are beginning to make an impact on shortages throughout the state. Just 70 of the current trainees reported homes in 28 Alaska communities and two foreign countries. Taking training opportunities to more rural communities will result in a better distribution of the health care workforce, and provide opportunities for rural residents to remain at or near their homes both for training and employment.

| <b>Project Components</b>              | <b>Phase One</b> | <b>Phase Two</b> |
|--|------------------|------------------|
| Community Health Aide Program          | X                | X                |
| Health Care Reimbursement              | X                | X                |
| Trainee Success:                       |                  |                  |
| Galena Grade 13 Pilot Project          | X                | X                |
| Supplemental Instruction Pilot Project |                  | X                |
| Pharmacy Careers                       | X                | X                |
| Medical Laboratory Careers             | X                | X                |
| Dental Assisting Careers               | X                |                  |
| Radiologic Careers                     | X                | X                |
| Community Wellness Advocate Program    | X                | X                |
| Direct Services Careers (PCA/CNA)      | X                | X                |

Phase One of this project began on October 1, 2004 when the RSA between the Department of Labor and the University was finalized, instead of the July 1 anticipated

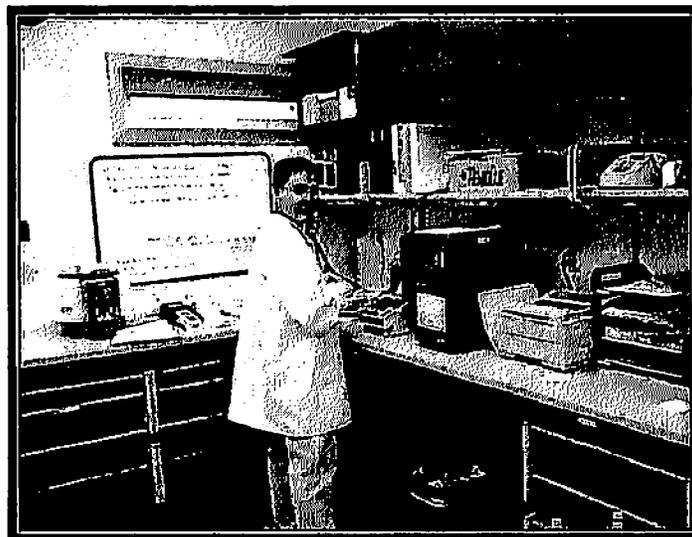
start date. Thus most project components will require at least an additional quarter to complete Phase One activities. The activities proposed for Phase Two are distinct from those that will be completed during the proposed time extension for Phase One.

Each Phase One component is now on track and proceeding at a reasonable and planned pace. A common theme in Phase One has been the enhancement and development of distance delivered programming for these allied health occupations. Some courses are still in development, others are being pilot tested. Many distance education models and technologies are being utilized, tailored to the training requirements of each occupation and modalities available to deliver the program in target locations. Partnerships with rural employers and campuses have been fundamental to this process.

Phase Two includes activities to develop additional distance courses, and to pilot, evaluate and refine Phase One courses. Dental Assisting Careers will not require additional funding in Phase Two.

There will be one new project component in Phase Two: Trainee Success Pilot Projects. One pilot project will expand and enhance the Galena Grade 13 project (included in the HCR component in Phase One) using lessons learned in Phase One. The other, Supplemental Instruction, will provide an important focus on preparing individuals academically to enter and succeed in allied health training.

The dollar amount of the Phase Two request is \$1,350,920, including a 5% indirect cost. This is lower than the \$1.6 million awarded for Phase One.



**Alan Coulter, Graduate of Phlebotomy,  
Clinical Assistant and MLT Programs,  
Current Student in BS MT Program  
Bethel/St. Mary's**

## **Background**

### **Allied Health Careers Project**

There are excellent jobs in rural Alaska in health care at village, sub-regional and regional levels. Local residents can be trained to take these positions.

Because of this, the Allied Health Alliance of the University of Alaska statewide system presented a training proposal to the Denali Commission in 2003 for funding to provide allied health occupational training in support of health infrastructure development in the rural areas of the state. The work plan for the project was developed in conjunction with many partners. It was particularly advised by deliberations of participants at the 2003 Allied Health Forum, a statewide gathering of educators, providers, and officials representing many health care interests in Alaska. The Forum was funded in part by the Denali Commission.

Over several years, the University of Alaska system and the Alaska health care industry had reviewed existing data concerning allied health occupations and professions in the state, identifying areas of shortage and maldistribution, and considering strategies to address workforce issues. In March 2001, a comprehensive Alaska Allied Health Workforce Statewide Assessment survey was completed, involving many organizations. In response, the University began to expand programs to meet allied health workforce development needs through its initiatives process. The 2003 Forum allowed university leaders and faculty to review progress and to engage in strategic allied health program planning with industry administrators and providers.

The University of Alaska's Allied Health Alliance was formed in July 2002. The Alliance is a cross-campus planning and coordination group of allied health deans and directors, and the Associate Vice President for Health Programs. It has been clear since the Alliance began meeting that an important component of allied health need exists in the rural areas of the state, and that vacancy rates experienced in remote areas were significantly higher than in its few more urban centers. All three of the University of Alaska main campuses had distance-delivered allied health programs in place, but there was a lack of coordination and many potential opportunities to expand these programs. In order to best address this disparity, and to provide better access to training programs for rural residents, the original proposal to the Denali Commission described a concerted and coordinated effort to distribute allied health programs more widely across the state.

A grant of \$1.6 million was awarded for Phase One of the Allied Health Careers project, beginning July 1, 2004. The project actually began on October 1, 2004, upon finalization of the RSA with the State Department of Labor.

## Student Data

By the end of this semester about 288 individuals from throughout Alaska (and the South Pacific) will participate in training courses and activities provided through project activities. This is nearly double the number of trainees projected for the first year.

Most of these students reside in rural Alaska. The 70 trainees who reported resided in 28 communities scattered throughout the state.

About 500 trainees are projected for Phase Two.

**Table 1. Allied Health Trainees in Denali Commission Funded Projects – Phase One**

|                  | <b>PROJECTED<br/>PHASE ONE</b> | <b>FALL 2004</b> | <b>SPRING 2005</b> | <b>TOTAL<br/>ENROLLED</b> |
|------------------|--------------------------------|------------------|--------------------|---------------------------|
| CHA/P            | 20                             | 59               | 90                 | 149                       |
| HCR B/C          |                                | 12               | 12                 | 24                        |
| HCR Galena       | 50                             | 0                | 10                 | 10                        |
| Radiography      | 5                              | 0                | 9                  | 9                         |
| Medical Lab      | 18                             | 21               | 5                  | 26                        |
| Pharmacy         | 12                             | 26               | 19                 | 45                        |
| Dental Assisting | 6                              | 0                | 0                  | 0                         |
| CWA              | 18                             | 0                | 15                 | 15                        |
| PCA/C N A        | 20                             | 0                | 10                 | 10                        |
| <b>TOTAL</b>     | <b>149</b>                     | <b>117</b>       | <b>170</b>         | <b>288</b>                |

This has been a development year. Few of these trainees will have completed their entire course sequence by the end of June. They will be entered into the Department of Labor database when their training program has concluded.

Feedback There seems to be a high level of satisfaction among students, their mentors and employers with regard to these programs to date, and a real appreciation for the opportunity to participate in training with minimal time away from home. One phlebotomy student has written the following note to faculty:

*The UAA Distance Program has been a blessing to those of us who live in "bush" Alaska. This is the first distance learning course I have taken. I have been very impressed with the level of support that has been provided to assist in my successful completion of the course. Your visit to Kotzebue demonstrated your level of commitment to the students. It was certainly a pleasure to see you in person after many conversations via phone, fax and email (smile).*

A beginning pharmacy technician student wrote:

*Through the pharmacy technician program I am receiving a solid foundation in pharmaceutical knowledge. This will not only help me to obtain a job as a pharmacy technician but will also help me to be more successful in my future job*

*performance. Furthermore, I am very thankful and appreciative that this program is offered long distance; otherwise, it would be impossible for me to obtain this education.*

An employer commented:

*Sometimes we're so busy in big corporations or in agencies, just getting things done, that we don't always spend time to stop and train. And what the Community Wellness Advocate Program's done for us is allow that training. A consistent, well thought out, well organized training. [It] develops skills that we want our health educators to have: lesson planning, presentation, community work, positive energy and attitude.*

A CWA trainee added:

*I get so excited about the things that I'm doing. What I would love to see happen here in this village is to have people exercising. Eating well. Treating their bodies well and maybe going back to some of the traditional ways of hunting, fishing, going out for the berries. Learning how to use the things that we've forgotten. I think there's a blending of the two.*

And another commented:

*We can only make changes in a community from people within our community. A well community is people that are working together...to address issues, take care of their ... problems. Themselves working together as a community.*

The Alaska community will be well served by increasing the numbers of these well trained, home grown, health care workers.



## **Health Care Workforce**

The field of allied health is unusual in that it encompasses many occupations and professions, with varying levels of shortage in each. Most are essential to the delivery of health care services, and new specialties appear with each advance in technology. In Alaska most are represented in small numbers, increasing the challenge of the postsecondary educational system to meet, but not overshoot, emerging demand. This workforce is aging and increased rates of retirement are anticipated in the next decade.

Data defining the Alaska allied health care is incomplete. Standard Department of Labor projections are based on historical data and, while helpful in many respects, do not consider vacancy rates, turnover, recruitment difficulty, and other workforce issues. The University's health workforce office has begun annual vacancy surveys that also request data about position openings for new graduates. The survey has so far collected data from health care facilities, hospitals and nursing homes. Because many health workers are not facility-based, a secondary survey of other health care providers is in development.

Demand Data about selected occupations by region are displayed on the following page. This includes the number of vacancies and positions for most of the occupations being addressed by the Allied Health Training Project, as well as for several of the professions that our graduates will work closely with on a daily basis. The Community Wellness Advocate is not listed here – it is not an occupation typically employed by a hospital or nursing home.

Additional information from the Department of Labor is included in this table: the percentage of workers over age 45, the percentage who are non-residents (OOS), and the proposed “training rank” priority which is based on several factors indicating opportunities for Alaskans.

A quick review of the table shows that for most of these occupations, the most rural North and West area has the highest vacancy rates. Considering that more urban towns, particularly Anchorage and Fairbanks, are home to the specialty and tertiary services for the rest of the state, vacant positions there also impact rural residents. Focusing on the rate data is somewhat misleading – attention should also be paid to the numbers involved in many cases, since even one vacancy can cause the rate to soar if the number of positions is small.

Feedback from providers indicates that some of the most acute shortages are occurring in professions that require a larger population than Alaska's to support a university program. From advanced radiographic certifications through physician training, the University of Alaska is developing and expanding ways to partner with other institutions to create a professional pathway for Alaskans seeking to enter these fields. In many cases, the skills and knowledge obtained through training in allied health careers here in the state support progress on a career pathway to more advanced professional levels.

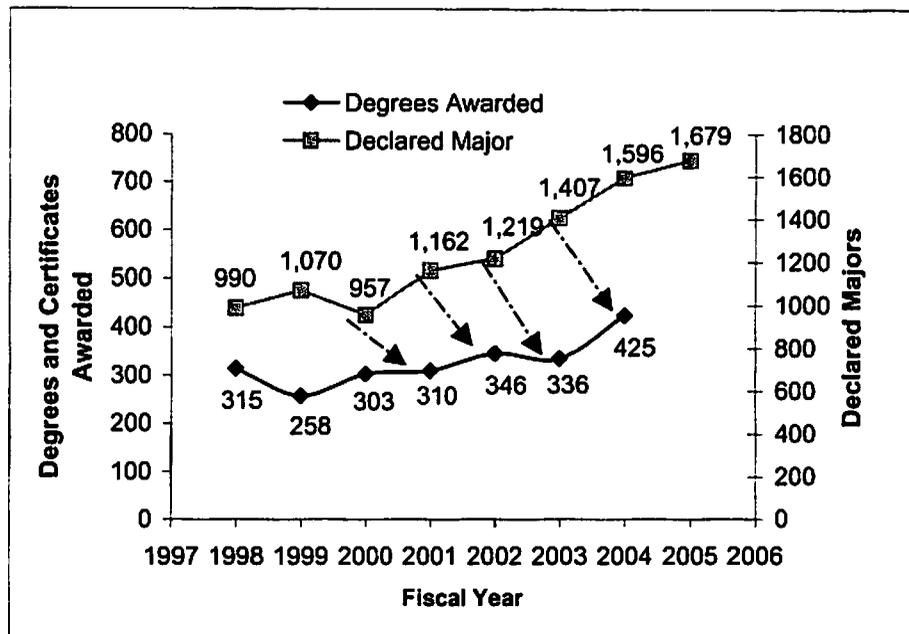
**Table 2. Vacancy Rates and Other Data for Selected Health Occupations - Facilities Only - Winter 2005**

|                   | Anchorage |           | Fairbanks |           | Gulf Coast |           | North and West |           | Southeast |           | Totals    |           | % > 45            | % OOS | Training Rank |
|-------------------|-----------|-----------|-----------|-----------|------------|-----------|----------------|-----------|-----------|-----------|-----------|-----------|-------------------|-------|---------------|
|                   | Vacancies | Positions | Vacancies | Positions | Vacancies  | Positions | Vacancies      | Positions | Vacancies | Positions | Vacancies | Positions |                   |       |               |
| CHA/P             | 1         | 6         | 0         | 0         | 0          | 0         | 55             | 343       | 1         | 12        | 57        | 361       | Not Ranked by DOL |       |               |
| Rate              | 17%       |           | 0%        |           | 0%         |           | 16%            |           | 8%        |           | 16%       |           |                   |       |               |
| HCR               | 14        | 127       | 3         | 25        | 2          | 59        | 11             | 48        | 3         | 55        | 33        | 314       | 29%               | 6%    | 140           |
| Rate              | 11%       |           | 12%       |           | 3%         |           | 23%            |           | 5%        |           | 11%       |           |                   |       |               |
| Pharm Tech        | 5         | 82        | 1         | 13        | 0          | 18        | 2              | 15        | 1         | 16        | 9         | 144       | 20%               | 7%    | 144           |
| Rate              | 6%        |           | 8%        |           | 0%         |           | 13%            |           | 6%        |           | 6%        |           |                   |       |               |
| Med Lab           | 13        | 141       | 3         | 47        | 8          | 65        | 8              | 37        | 2         | 38        | 34        | 328       | 57%               | 16%   | 95            |
| Rate              | 9%        |           | 6%        |           | 12%        |           | 22%            |           | 5%        |           | 10%       |           |                   |       |               |
| Dental Asst.      | 1         | 35        | 0         | 0         | 0          | 0         | 11             | 58        | 1         | 18        | 13        | 111       | 20%               | 10%   | 74            |
| Rate              | 3%        |           | 0%        |           | 0%         |           | 19%            |           | 6%        |           | 12%       |           |                   |       |               |
| Rad Tech          | 4         | 86        | 4         | 20        | 2          | 50        | 6              | 21        | 4         | 34        | 20        | 211       | 41%               | 33%   | 83            |
| Rate              | 5%        |           | 20%       |           | 4%         |           | 29%            |           | 12%       |           | 9%        |           |                   |       |               |
| PCA/ C NA         | 72        | 697       | 7         | 134       | 17         | 223       | 12             | 55        | 2         | 130       | 99        | 1133      | 37%               | 9%    | 33            |
| Rate              | 10%       |           | 5%        |           | 8%         |           | 22%            |           | 2%        |           | 9%        |           | 30%               | 8%    | 31            |
| Pharmacists       | 26        | 82        | 2         | 14        | 3          | 15        | 7              | 34        | 2         | 23        | 40        | 168       | 46%               | 23%   | 19            |
| Rate              | 32%       |           | 14%       |           | 20%        |           | 21%            |           | 9%        |           | 24%       |           |                   |       |               |
| Family Physicians | 4         | 23        | 1         | 1         | 0          | 8         | 1              | 10        | 5         | 18        | 17        | 108       | 49%               | 26%   | 55            |
| Rate              | 17%       |           | 100%      |           | 0%         |           | 10%            |           | 28%       |           | 16%       |           |                   |       |               |
| PA/NP             | 7         | 67        | 3         | 10        | 0          | 9         | 24             | 55        | 1         | 15        | 34        | 140       | 57%               | 22%   | 92            |
| Rate              | 10%       |           | 30%       |           | 0%         |           | 44%            |           | 7%        |           | 24%       |           |                   |       |               |
| RNs               | 122       | 1854      | 26        | 281       | 34         | 485       | 54             | 190       | 32        | 243       | 268       | 3053      | 52%               | 18%   | 1             |
| Rate              | 7%        |           | 9%        |           | 7%         |           | 28%            |           | 13%       |           | 9%        |           |                   |       |               |
| Dentists          | 0         | 18        | 0         | 0         | 0          | 0         | 4              | 27        | 0         | 18        | 4         | 63        | 53%               | 29%   | 130           |
| Rate              | 0%        |           | 0%        |           | 0%         |           | 15%            |           | 0%        |           | 6%        |           |                   |       |               |

Supply This project is specifically intended to improve the supply of allied health workers in Alaska, and moves training for these workers throughout the state. By the end of the current semester about 288 trainees will have participated in courses made possible through Phase One development.

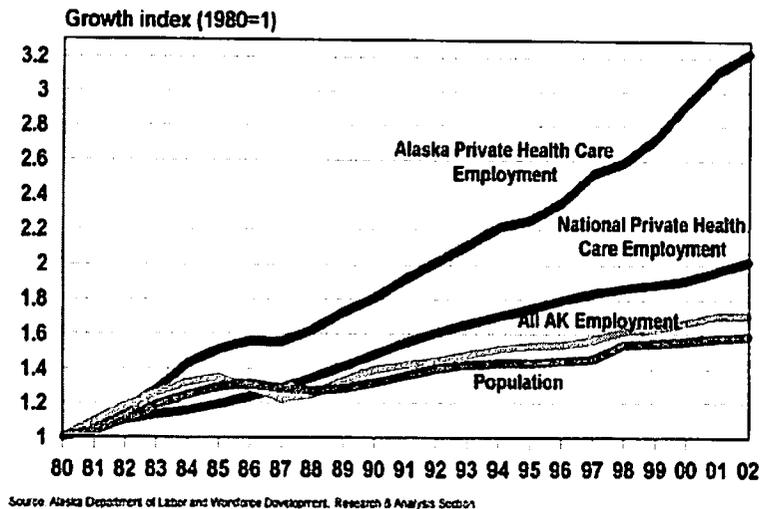
Overall, enrollment in allied health programs in the University of Alaska system has increased by 56% in the past several years. As capacity is increased through distance delivery, enrollments and completions are expected to accelerate further.

**Graph 1. University of Alaska System – Allied Health Programs Majors/ Graduates**



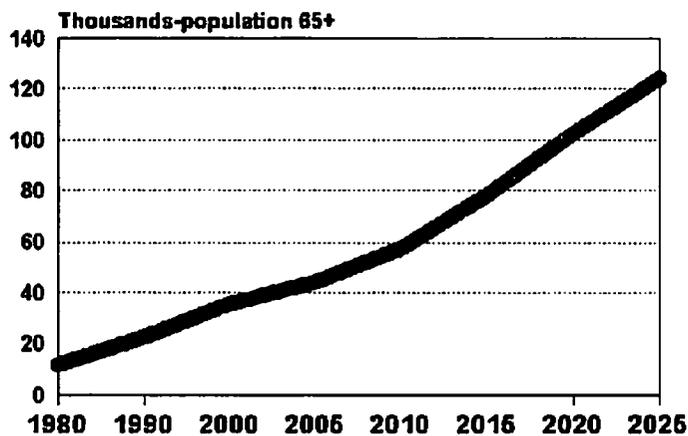
Projections The State of Alaska Department of Labor has projected a trend of rapidly rising demand in many health care occupations, even though the acceleration of demand is expected to slow somewhat compared to the frenetic pace of recent years. The picture of growth in Alaska’s health care workforce and senior population is shown in the following graphs from the Department of Labor’s Research and Analysis Section.

**Graph 2. Health Care Employment Growth Is In Its Own League**



Also, the over 65 population is expected to increase dramatically, creating an ever-increasing demand for health care services throughout the state.

**Graph 3. The Aging Of Alaska's Population Will Continue To Create A Strong Demand For Health Care Services**



## **Phase One Activities**

**General Progress on Work Plan** This project is going great! An enormous amount of work has been done in the six months since funding was received. Nearly double the number of students will be served than was projected for Phase One. Each project component has a well-developed work plan, expert faculty is in place, and distance course design is resourced.

The work plan for the Community Health Aide Program component has evolved during a series of productive meetings and planning sessions with representatives of that system. Details of the new plan are being worked out and implementation has begun.

The enhancement and development of distance delivered programming in these allied health areas is the main theme of Phase One. Some courses are still in development, others are being pilot tested. Many distance education models and technologies are being utilized, tailored to the training requirements of each occupation and the modalities available to deliver the program in target locations. Partnerships with rural employers and campuses are fundamental to this process.

**Progress on Budget** Progress on the budget is moving along well at this time. As described above, it is expected that Phase One will not be fully complete by June 30, 2005. A no-cost time extension for Phase One will be requested in order to complete all activities. This has been discussed with the Department of Labor and it is expected that an additional RSA will be generated to complete this work beginning July 1, 2005. The activities proposed for Phase Two are distinct from those that will be completed during the proposed time extension for Phase One.

### **Program-Specific Progress**

- 1. Community Health Aide Program (CHAP)*** There were 59 CHAP program staff that participated in a conference in Fall 2004, supported by this project's Academic Liaison. There are 10 CHA/Ps currently taking a distance-delivered continuing medical education (CME) course on cancer that is being co-taught by the Liaison. An additional 80 CHA/Ps are expected to attend a week-long CME Forum in early May. Besides the advanced training offered at this forum, some sessions will be taped for use in distance delivered CME courses in the future.

This has been a challenging project component to implement, reflecting the complexities of this extensive statewide system and its training needs.

The original work plan included re-establishment of the Tanana Chiefs Conference (TCC) CHA/P training center in Fairbanks, to help relieve a shortage of available training slots in the state. It was anticipated that this center would provide an opportunity to address continuing education and advanced training needs for CHA/P, as well as basic sessions. However, after extensive deliberations, TCC decided not to pursue re-opening the training center.

In December 2004, university representatives attended a CHAP Directors meeting to listen to a report on a CHA/P training study. They proposed to work with a group from the CHAP system to re-program the work plan for the project. In January 2005, representatives from the existing CHA/P training centers, regional health organizations, the Alaska Native Tribal Health Consortium (ANTHC), and the University met for an all-day planning session. The meeting was facilitated using a computer-assisted process, and resulted in broad discussion of CHA/P training needs and prioritization of work plan elements for Phase One.

A steering committee of CHAP system representatives meets regularly with university project staff to detail the work plan and to prepare a plan for Phase Two. Content experts from the CHAP system are being identified to work on distance course development, and instructional design resources are being coordinated. Phase One activities will continue alongside the Phase Two work plan for this project component.

2. ***Health Care Reimbursement (HCR)*** There were 24 billing and coding students served over the course of the year. Of these, 7 trainees in Nome successfully passed their American Academy of Professional Coders examination and are now Certified Professional Coders working for Norton Sound Health Corporation. This semester there are also 5 billing/coding students in Kotzebue and 7 in the Fairbanks area. In addition there are 10 students participating in the Galena Grade 13 Pilot Project.

This project component has two main elements:

Billing/Coding The first element is the distance development and distribution of training in entry-level billing and coding for hospitals and clinics throughout the state. This is a high-demand area, and essential to allow health care providers to collect from third parties in support of continued service provision.

A successful faculty recruitment for this program has just been completed, so it is gaining momentum. There are several cohorts of students around the state waiting to enter the program, and Phase One activities are expected to be completed during the extension time period.

HCR uses a creative combination of distance delivery methods and face-to-face intensives, and is based on a cohort model. Two courses have been developed for web-enhanced delivery using Elluminate Live. An adjunct faculty member taught a course in human diseases using Elluminate Live to the seven-student cohort in Nome in the fall semester. The Human Diseases course, as well Introduction to Psychology, are offered this semester through the Center for Distance Education.

An additional course is in development now: Introduction to Health Careers. This course will provide trainees with basic competencies common to all occupations in

health care. It will be introduced as part of the Galena Grade 13 Pilot Project this semester.

Galena Grade 13 Pilot Project Currently 10 students, ages 18-25, are enrolled in this pilot project.

The second HCR element, the Galena Grade 13 pilot project relies on a partnership between the University of Alaska Fairbanks College of Rural Alaska and the Galena City School District. It is intended to reach out to the rural areas of the state that have extremely high unemployment rates to provide job training and skills development in the health field. The occupational training program is designed to provide a vertical alignment of health programs that gives participants immediate employability skills and provide pathways to higher goals. A short certification program in a health occupation is packaged with condensed college transfer courses that are pre-requisite to additional trainings.

The Galena project is moving forward well. Coordination and logistical and student support resources are being worked out between project staff and the Galena City School District. Students are enrolled in a year-long program of Certified Nurse Assistant training, optional billing and coding coursework, and required math, science and English pre-requisites to university health programs. Certified Nurse Assistant training has begun first, with students completing didactics in Galena and clinical practice at Fairbanks Memorial Hospital. Faculty from the Tanana Valley Campus of the College of Rural Alaska provide instruction for the Galena students in CNA.

3. ***Pharmacy Careers*** There have been 45 trainees in the new and improved pharmacy technician program this year. This is an entirely distance delivered program.

This project component has moved along very well and it is expected that Phase One will be complete by the end of the fiscal year. The first two pharmacy technician courses have been developed and are in their second phase of pilot testing. The second two courses in the five course series have also been developed and are being piloted this semester. Nineteen of the 25 trainees that were enrolled in courses in Fall 2004 are enrolled in the second semester courses, and plan to continue in the certificate program. In Spring 2005 all four courses are being offered.

An active and accomplished advisory group from the health care industry has overseen the development of this fully distance delivered pharmacy technician program. Because there is no licensure requirement for pharmacy technicians in Alaska, this program needs to demonstrate that it adds value for employers and trainees alike. It is designed to provide increments of learning that will lead to career advancement for employed technicians, and several organizations are rewarding course/program completion. One hospital employer wrote the following note to the faculty:

*We have one of your students working in our pharmacy. She is an outstanding person. When she started she knew absolutely nothing about pharmacy. We did some basic training to allow her to function but I truly believe that her growth within our profession has been greatly enhanced by your educational program. She is much more comfortable talking to patients and making informed decisions as to when a pharmacist is needed. Her education and decision-making ability allows the pharmacist to get more work done.*

This points out some important benefits of training in allied health occupations: learning to interact appropriately with patients, developing decision-making skills, and enhancing the productivity of scarce health care professionals.

An exciting feature of this program has been its association with the University of Hawaii. As it was being developed, an opportunity arose to partner with Hawaii which has the responsibility to deliver pharmacy technician training to Samoa and Palau, but had no distance program. This has been an advantage in pilot testing the courses in areas where technology is less developed than in many parts of Alaska, and in bringing an international perspective to the faculty and students. Hawaii has supported inclusion of its students in the pharmacy technician program.

This relationship may prove to be even more fruitful in the future. The University of Hawaii has recently received approval to establish a School of Pharmacy and it is hoped that we can work with them to create a pathway for Alaskans interested in becoming pharmacists.

- 4. Medical Laboratory Careers** There are currently 26 trainees in distance courses moving along the medical laboratory career pathway, from 13 communities across Alaska. Ten phlebotomy students from around the state are currently enrolled via distance, and 10 have completed this level of training. Five students are enrolled in the Clinical Assistant program at this time.

This well-integrated multi-level career pathway shows great promise. There are four medical laboratory occupations that comprise the pathway: Phlebotomy (certificate), Clinical Assistant (certificate), Medical Laboratory Technology (AAS) and Medical Technologist (BS). The Phlebotomy and Clinical Assistant programs were already available in distance format. Phase One of this project has focused on these two programs; revising, updating and improving courses for distance delivery.

Curriculum for the introductory Phlebotomy Procedures and Introductory Urinalysis courses were upgraded in the first quarter of the project. A Specimen Processing course was developed during the first quarter of the project. This course is being moved into distance format and will be piloted this semester. It is expected that completion of this pilot and its evaluation will continue beyond the fiscal year, and some faculty time will be needed during the extension period.

Development and piloting of additional courses leading to the Medical Lab Technology degree will proceed in Phase Two, with careful evaluation as development proceeds. This program will be fully online in approximately one year.

With many more lab students at a burgeoning number of distance sites, it became apparent that the admissions and mentoring models used previously needed to be re-vamped. Instruction has been asynchronous and admission has been made available on an individual basis, in response to the immediate needs of employers. The three medical laboratory faculty members teach all four programs in the career pathway face-to-face on campus, as well as via distance. With each distance student progressing separately, and inexperienced mentors at some of the new sites, this has become unwieldy. The faculty is working with its partners both within and outside the university to design a more supportable model.

5. **Dental Assisting** Development work in dental assisting is proceeding. The first two courses are being formatted for distance delivery, and will be piloted beginning in Fall 2005.

There are several educational partners in this process. These partners helped select courses in Infection Control and Dental Office Practice for initial development.

The coordinator of the accredited dental assisting program at UAA is taking the lead in developing these first two distance courses. She will work closely with the new UAF dental assisting faculty member to evolve the curriculum. They will likely team teach some of the courses. We stay in touch with the ANTHC and Southcentral Foundation dental health aide and assisting programs through periodic meetings. It is expected that some common materials can be used in the future.

Because Phase One activities are not complete, they will continue during the extension period and no new funds are sought for this program in Phase Two.

6. **Radiologic Careers** There are 9 trainees enrolled in a pilot test of the first course of the limited radiographer program. Working with the Yukon Kuskokwim Health Corporation, this course is being offered to students from four communities within the Bethel region. Once the first course is complete, it is expected that this cohort will enroll in the next two courses.

The limited radiographer program addresses an important concern. In Alaska there is currently no level of training required of individuals who take x-rays. Often in small communities and clinics there is no radiologic technologist present, but x-ray equipment is used. This is a safety issue for both patients and employees. The limited radiographer program is being developed to:

- provide at least some level of training for those already taking x-rays,
- develop beginning competencies for those who may at some point need to take x-rays in their workplace, and

- provide an introduction to radiologic careers for those who may want to become a rad tech in the future.

Curricula and course content for the three limited radiographic technician courses to be distance-delivered in rural Alaska were approved during the first quarter of this project. In the second quarter, the courses were refined, adapted, and the first course was migrated into distance format.

This pilot of the first course has already yielded a number of helpful lessons in course content and delivery that are being put to good use in adjusting the course for student success. Phase One activities will be completed during the extension period.

7. ***Community Wellness Advocate Program*** There are 15 enthusiastic students enrolled in the CWA program this year, as you may have noted from the quotes above.

This program was already in existence, started by the Southeast Alaska Regional Health Consortium (SEARHC) several years ago with grant funding, in partnership with the University of Alaska Southeast Sitka Campus. The importance of village-level health promotion and health education efforts has been well demonstrated as rural residents slip away from traditional subsistence practices and into the lifestyles and disease experiences of the general population.

The main focus of the program to date has been on community health promotion and nutrition, and most trainees have resided in the southeast area of the state. A Sitka session has been part of the program, along with distance delivered and on-site components. A school-based health track is in development, with pilot sites in Southeast and in the Bethel region. In Phase Two tracks in elder health and injury prevention will be developed.

Project staff are making contact with tribal health organizations around Alaska, with plans to expand the number of trainee locations. There are some exciting developments in the areas of nutrition and public health at UAA that could provide two distinct career pathways for CWAs.

The project coordinator and administrative assistant positions were filled with experienced, excellent individuals, and work began at the start of the second quarter. These employees have been making up for lost time and are well into project activities. It is expected that by the end of June there will need to be only a small amount of staff time required to complete Phase One activities during the extension period.

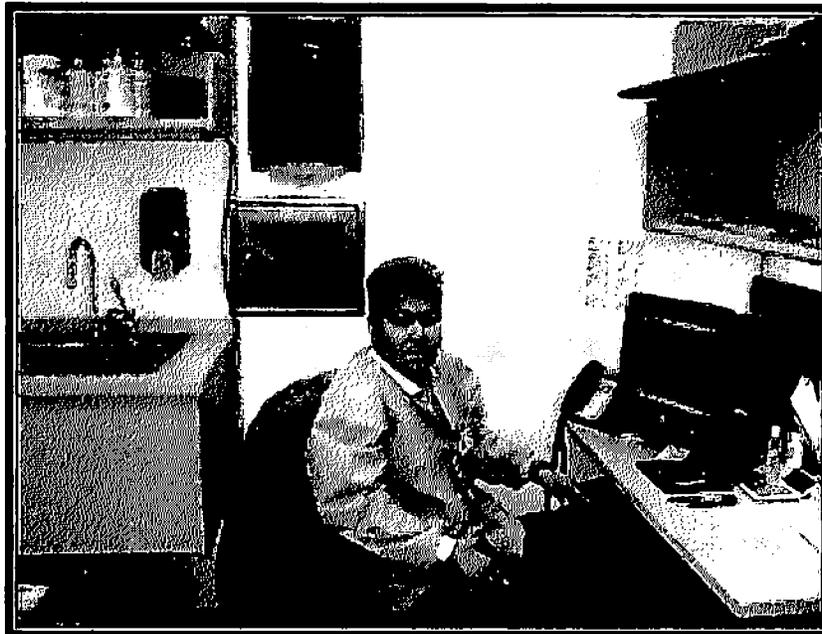
8. ***Direct Services Careers (Personal Care Attendant, Certified Nurse Assistant)*** There are no trainees currently in the distance version of PCA and CNA programs which are still in development. However, it is expected that 10 students will participate in the first pilot testing of the PCA package later this spring.

This project component has had a great deal of activity, and Phase One is expected to be completed by the end of June. Although the program coordinator could not be hired until October, she immediately became involved in a major cross-campus effort to standardize university curricula for the Personal Care Attendant program. Representatives from the campuses in Nome, Bethel, Fairbanks, Juneau, Ketchikan, Sitka and Anchorage met several times to identify a common core for PCA training, an 88 hour, 4-credit program including didactics, lab and clinical experiences.

Once that was accomplished, Sitka project staff took responsibility for web-based distance development of the academic portion of the program, as well as materials related to the labs. This package will be made available to all campuses interested in providing PCA training, and can be used either for distance students or to enhance face-to-face offerings. An interactive CD version of the package will be developed for use in locations where web connectivity is not reasonable.

With additional participants from campuses that also offer the Certified Nurse Assistant program, faculty will gather in April to attempt to identify a common core for that program. Project staff are already developing distance materials for CNA, and will adapt it to reflect the common curriculum. There is also a PCA II "bridge" course to be developed in Phase Two that would allow a PCA to become a CNA without significant repetition of content.

Pilot testing of the distance packages will be accomplished in Phase Two of the project.



**Daniel Charlie, Clinical Assistant, Toksook Bay**

## Phase Two Proposal

### Project Components

There are eight project components planned for Phase Two, as follows:

1. ***Community Health Aide Program*** The work plan for Phase Two for the CHAP component has been developed in conjunction with the CHAP Training Steering Committee, which was formed to support collaboration between the statewide CHAP system and the University of Alaska.

There are two main elements to this project.

**Academic Liaison** This individual is a university employee with long experience in CHAP training and distance education. Her role is to provide the link between the CHAP system and the University in order to carry out the planned collaborative activities. She is also instrumental in the process of revising the Community Health Aide Manual (CHAM), the massive handbook that lays out the scope of practice and standards of care for health aides and practitioners.

**Distance Course Development** Five course development activities have been identified by the Steering Committee for Phase Two of this project. They are:

- a. ***Training for CHAP Faculty*** – in Phase One CHAP faculty will receive initial training in distance pedagogy in order to participate in distance course development and instruction. In Phase Two this training will be extended to additional instructors and field supervisors, and will include advanced content for those trained in Phase One.
- b. ***CHAM Training Program*** – when the CHAM is completed and distributed in the early summer of 2005, there will need to be an extensive program of training to familiarize health aide instructors, aides and practitioners, and related providers, with new practices and procedures. It is anticipated that this will require a combination of distance education and face-to-face instruction.
- c. ***Continuing Medical Education Course*** – CHA/Ps are required to obtain advanced skills training on a regular basis after their basic training is completed. It is very difficult for these busy providers to leave their clinics and travel for classroom sessions. One distance CME course is to be developed in Phase One of this project and another will be developed in Phase Two. Topics will be determined in consultation with the CHAP system.
- d. ***Emergency Medical Services CME Course*** – CHA/Ps are required to maintain certification in emergency medical services. This distance course will be developed in conjunction with EMS entities and educators.
- e. ***CHAP System Orientation Course*** – CHAP trainers, field supervisors and directors are often recruited from outside of the CHAP system for their advanced clinical skills. There is frequent turnover in these positions. It is

important for the functioning of the system and the safety of the patients that these individuals understand the history of the program, its requirements, standards, and operations. This brief but important course would be made available for self-study.

2. ***Health Care Reimbursement*** Phase Two activities for this project component will include the development and testing of new delivery models and distance courses, refinement of courses piloted in Phase One, dissemination of the program to additional sites, and planning for articulation with the Health Information Management distance program out of UAS Sitka.
3. ***Trainee Success Pilot Projects*** There are two Trainee Success pilot projects planned for Phase Two.

Galena Grade 13 Pilot Project The Galena Grade 13 Pilot Project has been described in some detail above.

A subaward will be made to the Galena City School District, which provides the structure and support for these trainees. Educational resources are provided in collaboration with the university. There will be funds made available for student stipends as needed. In the second phase of this project, additional courses will be developed, migrated to distance format, and piloted with the Galena students. This will include some of the pre-requisite courses required for entry into university health programs.

Supplemental Instruction Pilot Project The Recruitment and Retention of Alaska Natives into Nursing program has had excellent success in attracting many rural students into nursing programs and supporting them through their difficult pre-clinical and clinical years. Its success is described more fully below. The new Supplemental Instruction Pilot Project seeks to develop a RRANN-like model for allied health.

This pilot project will be implemented from all three major university units and project staff will be based in Fairbanks, Anchorage, and Southeast. Staff will seek and coordinate resources and supplemental instruction for Alaska Native and other rural-connected students in allied health.

4. ***Pharmacy Careers*** In Phase Two of this project component, the fifth and final course in the basic pharmacy technician series will be completed and pilot testing begun. Results of the pilot testing of the first four courses will be reviewed and those courses and delivery methods refined and further tested. Additional students will be recruited in rural Alaska. Outreach to rural health care organizations will be scheduled, and mentors identified for student practica. Advanced modules will be planned in collaboration with the advisory committee.

5. **Medical Laboratory Careers** There are several elements planned for Phase Two of the medical lab component as follows:

- update and upgrade additional phlebotomy and clinical assistant courses ,
- develop additional courses for the future distance MLT program,
- devise and pilot a new admission model,
- identify additional sites and partners for the phlebotomy and clinical assistant distance programs, and
- develop an orientation program for clinical mentors.

6. **Radiologic Careers** Most of the faculty time for this project component will be spent completing Phase One activities in the limited radiographer program which experienced delays due to faculty workload and student pace. It was expected that all three courses would be fully developed and pilot tested in Phase One, but only one is in pilot at the present time. Phase Two activities will include refining the distance courses and delivery methods and piloting the program with additional sites.

7. **Community Wellness Advocate Program** As described above, this program is gathering steam. In Phase Two, tracks in school-based and elder health will be fully developed. Communication with rural health organizations will result in additional program sites across the state. One of the nutritionists associated with this program will serve on a statewide advisory committee for degree programs in nutrition and dietetics. Plans will be made to articulate the CWA program with these programs in nutrition, as well as with a developing health promotion/public health pathway.

8. **Direct Services Careers (Personal Care Attendant, Certified Nurse Assistant)** In Phase Two, the Personal Care Attendant and Certified Nurse Assistant distance courses will be fully pilot tested both in southeast Alaska and elsewhere in the state. The courses and delivery methods will be refined. Coordination between faculty teaching these programs in the University of Alaska system will continue during testing and refinement of these courses.

A Personal Care Attendant II “bridge course” will be developed. Once completed, a PCA will be able to sit for the CNA certification exam. A short distance course will also be developed that covers topics such as professionalism, appropriate interactions, critical thinking, and study skills – topics that the work group feels are essential to the PCA and CNA roles but not covered in the basic training programs.

### **Themes of Phase Two**

In reviewing lessons learned during Phase One and planning for Phase Two there are three themes that have emerged that deserve some discussion.

Models of Distance Delivery As has been briefly described in the discussion of Phase One activities, there are a number of models of distance education being utilized in the development of this project. Employing various communication modalities, software,

technologies, and course management methods, each program is evolving a combination of learning techniques that seem best suited to training content. The co-existence of a cross-campus instructional design resource project for health programs is stimulating consideration of the efficacy and efficiency of these techniques, and evaluation of methods is being built into the educational process. It is anticipated that this project will generate some new “best practices” in reaching and teaching distance students in allied health.

Community Levels of Service There is an interesting interplay between community size, levels of health services, local economies, and approaches to training the allied health workforce in rural Alaska. In the smallest villages, there are only a handful of jobs available, usually at the school, the public utility, village government, and the clinic. Health services are at the most basic emergency and primary care levels – search and rescue, first aid, health promotion, community health aide/practitioner services, perhaps a human services worker. Technical complexity has been introduced with desktop computers, telemedicine, telephone and internet connectivity.

The Health Aide system is the backbone of these services in many of the most rural parts of the state. Generalists are required and positions are few. For an individual who chooses to become a health care worker and stay in their small village, opportunities for job growth is directly related to obtaining and deepening a variety of generalist competencies. Allied health programs such as CHA/P training, clinic billing/coding, phlebotomy, pharmacy technician, limited radiographer, community wellness advocate, personal care attendant, certified nurse assistant, even dental assisting, can be used to add to an individual’s skills base for continuing to work in place at the village level. The person may have to leave their village for brief periods of time to receive training and skills mentoring, but many of these training opportunities may be found close to home.

For residents of middle-sized villages and towns, job opportunities in more specialized occupations can be found. At sub-regional and larger clinics, residents may feel a need to pursue steps along a particular career pathway in order to obtain sufficient specialized skills to compete for and hold local health care positions. The programs listed above are also useful here, but competencies must be deepened to provide additional and more advanced services to the larger populations of these communities and their smaller neighbors. This may require longer periods of time outside the community. The Denali Commission construction program has recognized this interaction of community size and level of health services by sizing clinics to suit the demographic environment. An important consideration in mid-sized communities is that there still tend to be few of any particular job, so it does not make sense to train many community members for one occupation. It is preferable to offer local residents career pathways that will allow them to develop more specialized skills and keep working in their home communities if that is their preference.

Rural hub communities are the crossroads for medical services in their regions, providing advanced primary and secondary care for the regional population, hosting medical specialists, and brokering tertiary services in urban centers. Most health care

jobs here require specialized, often lengthy and academically challenging professional education. With strong support for academic preparation in the community, regional residents can utilize competencies acquired in locally available health programs to move into educational programs for higher-level professions. Some of these programs are now being dispersed via distance by the university system – practical and registered nursing, social work, counseling, management, public health. Others will require a significant commitment of time away from home. Many regional employers have programs to support local health care students in their studies at every level.

Whether generalists or specialists, located full-time at village clinics, itinerating to them, or serving village residents at medical hubs, rural residents who enter the health care field bring not only high quality medical services to rural communities, but also a level of cultural sensitivity, community knowledge, and social awareness that supports health and the healing process. To identify individuals with an interest in health care and to connect them with the training programs that match their geographic preferences, career aspirations, and community needs, is an overriding theme of this project. This process is truly “growing our own.”

Trainee Success The final theme that has emerged from this project to date builds on the prior two. Besides assessment of models of distance pedagogy, we are engaged in discovering program models supportive of student success. To that end we have identified two pilot projects for Phase Two.

The first, the Galena Grade 13 pilot project, was introduced in Phase One as an element of the Health Care Reimbursement component. It has quickly grown beyond that subject matter. In conjunction with the Galena City School District, a structured cohort model is being used to position a group of interested young people for health careers. This project encompasses a generalist approach to skills development, providing an array of basic competencies and information relative to health careers, along with a program of academic enhancement. In addition, the trainee is provided with formalized training as a certified nurse assistant and/or biller/coder that will directly afford the student opportunities for employment. This project utilizes principles of student outreach, distance pedagogy, tech prep, and generalist skills development. As this model is refined, it will be tested in other locations.

The second model, dubbed Supplemental Instruction, is conceived on a more individual basis, employing staff to facilitate and coordinate available resources for those preparing for or enrolled in allied health programs. This is especially important for remote students who may not have campus resources at their disposal and who may have little experience with training institutions and distance coursework. This model builds on the experience of the Recruitment and Retention of Alaska Natives into Nursing (RRANN) program, which includes outreach, supplemental instruction, group support, financial stipends, mentoring and advising for both pre-clinical and clinical nursing students.

The success of the RRANN program has been huge. From very few Alaska Natives in UAA nursing programs in 1998, the program has grown to support about 100 pre-

clinical and 20 clinical nursing students each year on the Anchorage campus. As the AAS nursing program is distributed to more communities around the state (to seven outreach sites this academic year), the RRANN model is being adapted to provide local resources to ensure student success.

In Southeast Alaska, a RRANN coordinator has been on the job less than six months. When she began there were no Alaska Native pre-clinical or clinical nursing students at any of the region's three outreach sites. There are now five pre-clinical students taking courses on the road to that profession, and interest in the health professions is climbing.

Building on the RRANN experience, and tailored for allied health students, we expect the Supplemental Instruction Pilot Project will serve to attract and prepare more rural-connected students for careers in allied health, and to ensure their success in these programs.



**CWA Teaching Students About Healthy Lifestyles**

## **Budget**

The total budget request for Phase Two of the Allied Health Training project is \$1,350,920, which includes indirect costs at 5%. The University of Alaska is charging considerably less than its negotiated federal facilities and administrative rate; a University contribution to the project.

The budget request is found on the next page and includes direct costs associated with each project component, projected student counts and per student costs. Phase Two is still primarily a development period, but more trainees will participate in these programs as courses are piloted, refined, and delivered to additional sites.



**Billing and Coding Students, Nome**

**BUDGET REQUEST - ALLIED HEALTH CAREERS, PHASE TWO**

| <b>Project Component</b>               | <b>Phase One Training</b> | <b>Phase Two Training</b> | <b>Total Phase Two</b> |
|--|---------------------------|---------------------------|------------------------|
| <b>CHAP</b>                            | \$ 468,650                | \$ 403,220                | \$ 403,220             |
| # Students                             | 149                       | 150                       |                        |
| Cost/Student                           | \$ 3,145                  | \$ 2,688                  |                        |
| <b>Health Information</b>              | \$ 164,500                | \$ 75,624                 | \$ 75,624              |
| # Students                             | 24                        | 80                        |                        |
| Cost/Student                           | \$ 6,854                  | \$ 945                    |                        |
| <b>Trainee Success Pilot Projects:</b> |                           |                           |                        |
| <b>a. Galena Grade 13</b>              | \$ 135,360                | \$ 125,280                | \$ 125,280             |
| # Students                             | 10                        | 20                        |                        |
| Cost/Student                           | \$ 13,536                 | \$ 6,264                  |                        |
| <b>b. Trainee Support</b>              | \$ -                      | \$ 201,848                | \$ 201,848             |
| # Students                             | 0                         | 80                        |                        |
| Cost/Student                           | \$ -                      | \$ 2,523                  |                        |
| <b>Pharmacy Careers</b>                | \$ 102,280                | \$ 145,632                | \$ 145,632             |
| # Students                             | 45                        | 50                        |                        |
| Cost/Student                           | \$ 2,273                  | \$ 2,913                  |                        |
| <b>Medical Lab Careers</b>             | \$ 165,390                | \$ 103,453                | \$ 103,453             |
| # Students                             | 26                        | 30                        |                        |
| Cost/Student                           | \$ 6,361                  | \$ 3,448                  |                        |
| <b>Dental Assisting Careers</b>        | \$ 97,220                 | \$ -                      | \$ -                   |
| # Students                             | 0                         | 10                        |                        |
| Cost/Student                           | In development            | \$ 9,722                  |                        |
| <b>Radiography Careers</b>             | \$ 100,910                | \$ 37,145                 | \$ 37,145              |
| # Students                             | 9                         | 20                        |                        |
| Cost/Student                           | \$ 11,212                 | \$ 1,857                  |                        |
| <b>Community Wellness Advocate</b>     | \$ 113,560                | \$ 117,428                | \$ 117,428             |
| # Students                             | 15                        | 30                        |                        |
| Cost/Student                           | \$ 7,571                  | \$ 3,914                  |                        |
| <b>CNA/PCA</b>                         | \$ 72,000                 | \$ 76,960                 | \$ 76,960              |
| # Students                             | 10                        | 30                        |                        |
| Cost/Student                           | \$ 7,200                  | \$ 2,565                  |                        |
| <b>Total # of Students</b>             | <b>288</b>                | <b>500</b>                |                        |
| <b>TOTAL DIRECT COSTS</b>              | <b>\$ 1,419,870</b>       | <b>\$ ,286,590</b>        | <b>\$1,286,590</b>     |
| <b>Indirect Costs</b>                  | <b>70,990</b>             |                           | <b>64,330</b>          |
| <b>Infrastructure Costs</b>            | <b>109,140</b>            |                           | <b>-</b>               |
| <b>TOTAL BUDGET</b>                    | <b>\$ 1,600,000</b>       |                           | <b>\$1,350,920</b>     |

## **Evaluation Plan**

There are four components of the evaluation plan for Phase Two of this project, as follows:

- Evaluation of instructional design support for distance course development – assessing the efficacy and efficiency of the instructional design support process utilized by this project.
- Tracking of training completers – as an individual completes a sequence of courses in an allied health program, the University's Office of Institutional Research will be notified and the student's demographic information entered into a State of Alaska Department of Labor database. This will allow for tracking of the individual's employment and pay rates. Summary reports will be provided to the Denali Commission and others regarding the impact of the training on employability and promotion.
- Other student data – regular university data regarding course enrollment, persistence, and program completion will be kept for these programs where feasible.
- Provider Forum – at some point during the next year, the Allied Health Alliance will host another forum for industry and university representatives. We will review progress on program development since the 2003 Forum, consider current employment projections and vacancy data, and plan future allied health workforce initiatives.

## **Acknowledgements**

The University of Alaska would like to thank the Denali Commission for supporting Phase One of the Allied Health Training project, and for considering us for a Phase Two award. There has been an incredible amount of distance course development activity made possible by these training funds, as well as the evolution of sound models of distance pedagogy, delivery methods, and student support. There is heightened awareness statewide about the existence of allied health training opportunities, and a growing appreciation for the quality of education that can be provided via distance in this field.

The University would also like to extend its sincere appreciation to all of our many industry partners, without whom there would be no possibility of clinical experiences for our students or any purpose for this project.



**Limited Radiographer Trainees and Instructor  
Yukon Kuskokwim Health Corporation**