

Development and Delivery of Online Health Promotion Bachelor's Degree Programs for Allied Health Professionals

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Abstract

This article describes the development and delivery of three entirely online Health Promotion degree programs designed specifically for allied health professionals. In 1999, the Health Promotion (HP) Department at our university conducted a primary and secondary needs assessment of the need for and interest in online bachelor's degree programs targeting working allied health professionals with associate's degrees. On the basis of data from this needs assessment, the HP Department received funding from the Health Resources and Services Administration (HRSA) and began the process of developing and delivering our initial online bachelor's degree completion program in Health Promotion beginning July 1, 2000. Currently three separate bachelor's degree completion programs for allied health professionals have been implemented and institutionalized within the university. Five additional degree completion programs will be implemented in Fall 2007. As of Fall 2006, 261 students were participating in the three current programs. Issues related to successful online program development and implementation within the context of a traditional residential university will be discussed. This unique approach of offering online health promotion degree completion programs has increased the Health Promotion workforce by providing health education competencies to clinically-oriented allied healthcare providers.

Key words: Health Promotion, Program Development, Allied Health, Online Learning, Online Degree Program.

Introduction

Rationale for Program Development

Nationwide, more than 50% of all allied health professionals are trained at the associate degree level.¹ At the time of the original needs assessment in 1999, our state had 11 community colleges graduating individuals with the associate of applied science (AAS) degree in 15 allied health fields, while collectively the three 4-year state-supported institutions offered only three allied health professional degrees at the baccalaureate level. On the basis of graduates, approximately 95% of allied health professionals educated within our state were prepared at the associate degree level.

While the AAS degree provides the basic preparation to become an allied health practitioner, these degrees typically focus on the clinical skills needed to perform the tasks of each allied health field and often lack a broad understanding of healthcare and health promotion.² In a survey of allied health graduates, these professionals perceived themselves as inadequately prepared in workplace management, knowledge of the health industry, communicating with various stakeholders, and interpersonal skills.³

The need for health promotion and disease prevention education is echoed by hospital administrators. A substantial number of hospital administrators admit significant difficulty in recruiting a prevention specialist.⁴ The Association of Academic Health Centers and the Association of Teachers in Preventive Medicine have recommended the inclusion of more competencies in health promotion and disease prevention in health professions schools.⁵ Sportsman, Hawley, and Bowles (2004) discussed the continued need for prevention content in allied health education and practice.⁶

Additionally, 93.5 % of a national allied health faculty sample stated that health promotion or disease prevention content was “very” or “somewhat” important to the goals of their academic programs.⁷ As stated by Mathews-Gentry,⁸ it is “presumptuous and unrealistic” to expect entry-level educational programs to adequately prepare a professional to make all the decisions the current and future healthcare marketplace demands. This statement is echoed in the literature by Lary, Lavigne, Muma, Jones, and Hoefl⁹ and the [Report of the National Commission on Allied Health: Executive Summary](#).¹⁰ In addition, a lack of qualified educators for faculty positions in allied health programs has been

observed.¹¹ Expanding the opportunity for allied health professionals to obtain a bachelor's degree helps them to become qualified to pursue a master's degree. With the acquisition of bachelor's and master's degrees, more qualified professionals could become faculty in community college allied health professional programs.

Additional education is needed for AAS-prepared allied health professionals to: 1) advance professionally, 2) increase their ability to work with other health professionals within an interdisciplinary team, 3) increase their ability to work with patients from diverse backgrounds, and 4) expand their knowledge of health promotion and disease prevention. Enrolling in and completing a health promotion-related bachelor's degree would be one way to address these four needs.¹²⁻¹⁵

We proposed to address these educational needs via interdisciplinary degree completion programs that are based on a core content of Health Promotion. Success has been previously demonstrated in conducting interdisciplinary education using an online format.¹⁶ Our goal was to enhance Community Health Promotion and Health Education capacity by enabling practicing allied health professionals to see beyond their specialized clinical focus and be prepared to address broader community health needs.

Individuals who became allied health professionals via the AAS degree route and who also desire a bachelor's degree are faced with at least three barriers to continuing their education: 1) Working professionals often must quit their jobs and move to a location that offers an appropriate bachelor's degree; 2) Few bachelor's degree programs readily accept AAS preparation coursework, and hence students seeking the bachelor's degree will often require a significant number of additional credits; and 3) There are few distance learning degree completion programs that are consistent with the specialized needs and interests of allied health AAS graduates from multiple disciplines.

Purpose of Study

The primary purpose of this manuscript is to detail the development, delivery, and initial process evaluation of three entirely online degree programs in Health Promotion. These programs target working allied health professionals and provide health promotion content in an effort to expand community health promotion capacity.

Methods

Implementation Process

Our academic department offers traditional Health Promotion (HP) content and resides in a College of Health and Human Services at a traditional state-funded university. In addition to the online degree completion programs, the department offers undergraduate degrees in a traditional residential delivery format in Community Health Promotion and in School Health/Physical Education. Graduate level courses are offered in a Health Promotion emphasis within an online Masters of Administration degree program.

Needs Assessment- To determine the interest of AAS-prepared allied health professionals within the state in distance learning bachelor's degree completion programs, two surveys were conducted in Fall 1999. The first was a survey of directors of the AAS degree programs at the 11 state community colleges. The second was a survey of the education directors of 21 rural and urban healthcare centers in the state. Results of the surveys revealed overwhelming support for the proposed online degree format and are consistent with other findings.⁷

Funding- On the basis of the results from these two needs assessments, a grant was submitted to the Health Resources and Services Administration (HRSA) Allied Health Grant Program for funding to develop, market, and implement an initial Bachelor of Applied Science online degree completion program in Health Promotion. This degree program targeted allied health professionals with associate degrees who were already working in healthcare settings and who wanted to increase their knowledge and skills in health promotion, as well as those needed for advancement in management and administration. There was a special emphasis on individuals from underrepresented areas. The grant was subsequently funded for approximately \$165,000 per year for three years (2000-2003). At the same time, the department submitted a proposal to the university requesting an additional faculty member to develop and implement the first online degree program in HP. Funding was approved for a three-year faculty position (non-tenure-eligible) beginning August 2000.

Advisory Committee- Initial administrative activities focused on the formation of an advisory committee to assist in the development and delivery of the program. The committee included department and

college faculty, a program evaluator, and university representatives from the marketing and distance learning offices. A network of individuals from community colleges and healthcare centers was also developed to provide feedback and counsel.

Curriculum Development and Faculty Training- The curriculum was developed with allied health professionals in mind and used the Certified Health Education Specialist responsibilities and competencies as a framework. Five existing faculty members were trained in web course development and delivery during the 2000-2001 academic year. Over the course of the first three years, thirteen (13) courses were developed and delivered online (see Table 1). While most of these courses were initially taught once per year, selected courses were offered twice per year as student demand increased.

Marketing- During the first year (2000-01), marketing efforts were created to target working allied health professionals within the state. Print materials were developed, and a website was created. Direct mailings were sent to healthcare centers, community colleges, and allied health professionals in the state. Program faculty visited healthcare centers and community colleges to introduce the program. Funding from the HRSA grant was used for these and other marketing activities. During the second year (2001-02), activities of year one were continued within the state, and marketing efforts were expanded to the surrounding states. A form requesting contact information was added to the website to track online inquiries to the program.

In the third year (2002-03), marketing was expanded nationally by placing ads in national allied health journals. Marketing and retention efforts included hosting face-to-face "meet the faculty and students" gatherings in regional metropolitan areas for students who were geographically close enough to attend. An online newsletter was created to better communicate with current students as well as those who inquired about the program.

Pilot/Phase-In/Full Implementation- In summary, the implementation model recommended by Parkinson and Associates was followed.¹⁷ Year 1 (2000-2001) was a pilot year during which the first three courses were developed and delivered online. The target market was a limited number of allied health professionals in the state. During Year 2 (2001-2002), the program was phased-in, and additional courses were developed and delivered online and marketed to an expanded number of allied health professionals. On the basis of lessons learned during

Years 1 and 2, Year 3 (2002-2003) involved full implementation of the entire curriculum to a nationwide target audience.

The Bachelor of Applied Science program focused on health promotion content, as well as management and administrative skills. This degree program was open only to allied health professionals who had an associate's degree. As this program became more well-known, we began to have numerous inquiries from individuals who wanted a more targeted community health focus. During Years 4 and 5 (2003-2005), a second online degree completion program with an emphasis in Community Health Promotion was developed and implemented. This Bachelor of Science degree is identical in curricular content to our residential Community Health Promotion degree.

In response to feedback from community college partners, allied health professional organizations, and student demand, we next began exploration of a new model of "upside down" or "inverted" 2+2 degree programs that would allow the student to have a bachelor's degree in a specific allied health area. In essence, the specialty allied health expertise that students acquired at the associate's degree level became the "major." At the university level, students rounded out their liberal studies education and received approximately 24 credit hours of health promotion coursework. During Years 6 and 7 (2005-2007), a third degree completion program based on the inverted 2+2 model with an emphasis in Diagnostic Medical Imaging and Therapy (DMIT) was developed and implemented. Based on the success of the DMIT program, five additional degree completion programs (Respiratory Care, Surgical Technology, Medical Assisting, Physical Therapist Assisting, and Paramedic Care) have been developed during the past academic year. These newest five degree completion programs have been fully approved and will be implemented beginning Fall 2007.

Results

Response to these degree completion programs has been significant. Figure 1 presents the increase in the total number of students involved in the three existing programs. The number of students has grown exponentially from 5 students the first semester (Fall 2000) to 261 students in Fall 2006. Since full-time working students do not enroll in courses every semester, Figure 2 provides the data of students who actually enrolled in courses each

semester. The growth of enrolled students has grown significantly each semester from 5 initially to 168 in Fall 2006. Of special significance, all of these students are new to our university, are geographically isolated from our university, and would not be students here if it were not for these online degree completion programs.

Demographics of the students in the program are also of interest. Students from more than 15 different allied health disciplines have enrolled. Although the majority (75%) of the students come from our state, students from more than 15 states, U.S. military bases abroad, and several foreign countries have been enrolled in the programs. Most students are normally able to complete all degree requirements in six semesters of enrollment of two to three courses per semester. Variability in completion time stems from the variability in the amount of transfer credit and the number of courses in which students enroll each semester. Due to family, work, and other obligations, some students occasionally take a semester off from school. Therefore, the completion time of six semesters may not be during consecutive semesters.

At this point, 47 students have graduated from these programs. Of these students, approximately 20% have been minority/disadvantaged students. Our university is located in relatively close proximity to several American Indian reservations. Our state also has a strong Hispanic presence. Interestingly, however, several of our minority students also come from other locations throughout the nation.

Formal evaluations from students have been conducted in two areas: 1) All of the courses offered online have been evaluated each semester by the students; and 2) The overall program has been evaluated relative to the administrative process of marketing, admissions, registration for classes, and advisement.

Students evaluate the courses as being "very good" to "excellent" with faculty of the courses receiving high praise from students. An evaluation of the administrative process has also been conducted via telephone surveys. Results were generally positive; however, particularly during the initial years, a number of areas of weakness were identified. Many of these challenges are related to university policies and procedures for admission, enrollment, and financial aid that are not conducive to non-traditional applicants. Lack of acceptance by the university of prior academic credits from proprietary allied health programs and non-accredited academic programs has

also been a barrier in recruitment and the subsequent admissions process.

From a university perspective, not only are enrollment numbers important, but for the "institutionalization" of a program to occur, the income generated must be adequate to support the program costs. Figure 3 shows the increase in income with \$282,400 in tuition dollars being generated in Fall 2006 just from the course enrollments of these HP online students. While there has been a strong upward trend throughout the years, sharper increases in income in some years also reflects a university tuition increase. This figure only reflects tuition dollars; it does not include other sources of university income tied to enrollment.

Discussion

In just six years, our department has implemented three online bachelor's degree programs and will implement five additional online bachelor's degree programs in Fall 2007. There were 168 students enrolled in the three existing programs as of Fall 2006. These numbers indicate that online-delivered bachelor's degree programs have exceptional potential to increase university enrollments and to strengthen the educational preparation of the nation's healthcare workforce. Since the development and delivery of our initial program, much has been learned about delivering educational programs at a distance. The Southern Regional Education Board (SREB) adopted the [Principles of Good Practice for Electronically Offered Academic Degree and Certificate Programs](#).^{18,19} This model offers several distinct components that will be used to discuss the programs developed at this university.

Institutional Commitment and Infrastructure

While the needs analysis clearly identified a rationale for the development of these programs, a need for and interest in such programs does not necessarily lead to successful online degree programs. Any new distance learning program must have the institutional support and resources required to accomplish the many necessary tasks.²⁰ Our university is strongly committed to distance education and has an established infrastructure of technological support and faculty development programs. A team approach enables faculty to develop and teach web courses irrespective of their prior experience in technology, graphics design, or online teaching. Additionally, the library has a strong commitment to online delivery of library services and resources. The college in which

our department resides also has a mission conducive to online learning: "to be recognized regionally and nationally as a leader in the use of distance learning and information technologies to provide training in health and human service professions to the rural and diverse populations of [the state]."

Even with the existence of strong university support and commitment, it is doubtful that these programs would have experienced such early success or grown so rapidly without the initial additional financial resources contributed by the HRSA grant. In addition to providing external funding for administrative support, this grant allowed for substantial marketing efforts that would not have been possible with existing university resources. These initial marketing efforts were crucial to the early growth of the program. Grant funding was also used to compensate faculty for developmental work involved in creating an online course. This was important to facilitate faculty "buy in" mentioned below.

Our experience supports the findings of others relative to the important need for broad-based university-level marketing for distance learning courses and programs. Levine²¹ states that most colleges underestimate the costs to develop and deliver a distance learning program and notes that the marketing of a course can cost more than the course itself. Oakely²² repeated this sentiment when he said that the lack of marketing is a reason for the failure of many distance learning programs. A "build it and they will come" mindset has not proven workable.

Targeted marketing has taken an extensive amount of time and resources, but we believe it has been essential to our success in attracting students to the program. Traditional generic university marketing activities are not adequate. Targeted marketing aimed at specific key audiences is required. In our case, our university resources would not have been sufficient to fund these activities. The HRSA grant allowed funding for targeted marketing during the first three years of the development of our programs. This outside marketing support proved invaluable to establishing an initial presence among allied health professionals.

Our targeted marketing efforts included direct mailings to professional organization mailing lists, visits to healthcare centers and community colleges, and the development of program-specific marketing materials. Another key component of marketing that should not be underestimated is an informational website. Records of website inquiries about our

programs have been collected since October of 2001. This website has been a cost-effective and productive source of prospective student contacts.

Curriculum and Instruction

In describing the development of an online course in the health professions, Glacken and Baylen point out that "The pedagogy, not the technology, must drive course delivery."²³ All courses in our degree programs were developed and directed by faculty with expertise and traditional residential teaching experience in that content area. Technological support was provided by the university's computing support staff, but all curriculum and assessment decisions remained the responsibility of the academic faculty. Quality interaction between faculty and students and between students and other students is an important component of all courses. In most cases this is conducted through asynchronous threaded discussions that are a graded component of the course(s).

While course design varies depending on content, typical courses include weekly reading assignments, weekly quizzes over the reading material, weekly or bi-weekly discussion topics, a variety of individual practice-based assignments, experiential learning, and written papers. Instructors communicate regularly with students in both individual and group environments. Every effort has been made to encourage the teacher-student and student-student interaction normally experienced in a face-to-face environment. In our experience, student reports of the amount and quality of interaction experienced in an online class frequently exceeds that which they have experienced in face-to-face classes.

Faculty Interest and Support

There was unanimous support from departmental faculty for developing online degree completion programs. Each of the faculty involved already possessed content expertise, but their willingness to learn new teaching methodologies and technological skills, as well as their willingness to confront and transcend numerous barriers, provided a key element to our success. Prompt and consistent feedback from faculty to students helped to build a strong positive impression with students. This level of faculty "buy in" may not always be present, but it remains critical to the success of an online program.²⁰ Compensation for course development time and recognition of course load demands also played an important role in gaining faculty support.

Student Support

The university made significant efforts to afford distance students the same resources available to students on campus. Library services, computing support, and other on-campus procedures were modified to be more accessible to geographically isolated students. One significant barrier, however, involved the admissions process. The traditional university model for admitting and enrolling students presents a significant problem for distance learning students. Non-traditional distance learning students have expectations of rapid turnaround times for getting admitted and having their transcripts evaluated. Many potential students become frustrated with the slow response of traditional academic institutions. "The bottom line is that today's older adult students are bringing their consumer attitudes to higher education."²¹ While significant improvement has been noted across time, this continues to be a barrier.

Another aspect of the traditional academic model that may not be well-suited for distance learners is the academic course schedule. Our online programs have typically followed the traditional 15-week Spring/Fall and 10-week Summer format. Many distance students, however, have suggested deviations from this model. Currently two of the introductory courses are being piloted in a 7-week format. This format allows students to take two courses during any given semester, while affording them the opportunity to focus on only one course at a time. Although the workload for such "short-format" courses is intense, student reaction to this format has been very positive.

Student Retention

It is important to ensure that a new distance student has an accurate perception of the time commitment needed to complete a 3-credit university level course. We conducted a survey in 2002-2003 of students who withdrew from the online programs. The results revealed that 84% of students who dropped out of our programs felt they had underestimated the difficulty of completing a degree online. Much of the student feedback received suggests that the courses are more rigorous and more time-consuming than students expected. The retention of students can be negatively affected by these early misperceptions. Appropriate advisement can mitigate this problem by suggesting lighter course loads and clarifying faculty expectations early in each course.

Surveys also revealed that students who withdrew from the programs often did so due to personal reasons rather than due to any problems specific to the academic programs. Working professionals have many demands on their time. As mid-career professionals, many have significant work responsibilities in addition to heavy family responsibilities. Often academic advancement must take a temporary “backseat” to these demands.

To encourage student retention, a program staff member contacts every new student within the first five weeks of the semester to inquire about any difficulties the student may be experiencing. Additionally, immediately prior to the beginning of a semester, students who have not yet enrolled for the coming semester are contacted to inquire about any needed assistance. Students often seem surprised that “someone cares enough” to make that personal contact. It is important to remember that while convenient, the distance learning environment can often be lonely, and students may not have much support for educational advancement in their normal work and family environments.

Information related to advising contacts with each student are logged into a shared “electronic advising notebook.” This notebook can be accessed and used by distance learning advisors and health promotion faculty and staff. Regular entries into this notebook allow advising and program personnel to have current and accurate information about communication that has occurred with a student.

Student Feedback

Students who succeed in the programs have cited faculty quality and course rigor among their reasons for continuing. In exit interviews, students regularly comment that they are appreciative that they had to “work hard” for their degree and that they feel empowered by their success in a rigorous, self-directed program environment.

The Health Promotion focus of the degree has broadened student perspectives regarding the multidimensional components of healthcare. A shift from a tertiary clinical treatment perspective toward a primary prevention perspective has been reported. Students have then shared that newly discovered perspective with others in their personal and professional worlds. As working healthcare professionals, they have the background, experience, and institutional trust to be able to apply their newly acquired health promotion knowledge and skills to

existing problems within their workplaces and their communities.

In their capstone internship experiences, students have been responsible for substantive fieldwork projects. From Native American healthcare professionals who implement health promotion programs with their native people to respiratory therapists who now understand and disseminate prevention practices within their work environment, students are able to “make a difference” in health promotion within their healthcare settings. In their capstone projects, students have conducted health promotion seminars, created new hospital-based prevention programs, and worked collaboratively with non-profit organizations.

Conclusion

Overall, our online degree completion programs have been extremely successful, and they continue to grow rapidly. Some of the lessons that have been learned during the process of development and implementation of these programs are outlined below.

- One key element is the necessity to be flexible and willing to deviate from traditional operational models in higher education. This is especially true in the application, admission, and initial enrollment process. Non-traditional students are not only unique in their needs as learners, but they also demand a rapid and efficient response to the initial admission and enrollment process.
- University administration needs to be aware that online programs must be supported with similar resource allocations to those of residential programs. As online programs may grow rapidly, resource allocation must increase proportionately. This includes faculty, staff, operating budgets, and marketing resources.
- Marketing resources for programs such as those described above must be carefully targeted to specific audiences. Traditional university marketing practices often do not reach working adult professionals.
- Success depends upon strong support--from the departmental faculty all the way to the university president. This may seem obvious; however, there are many unrecognized and potentially subconscious barriers to distance learning within traditional academic settings.

- Program developers should address pre-existing assumptions and opinions of faculty and administrators prior to program implementation. Many strong supporters of distance learning have unrealistic expectations for distance learning programs while at the same time many opponents of distance learning have unsubstantiated beliefs about the limitations of distance learning.

Working health professionals have high expectations for quality, performance, and efficiency, and they appear to carry these expectations into the academic environment as well. They expect a lot from the faculty, from the coursework, and from the institution. They also expect a lot from themselves. These students are also more comfortable in providing honest and constructive feedback. Students consistently say that what they have learned in their degree programs has made a significant difference in their professional careers and that they have frequent opportunities to put what they have learned into practice. By exposing allied health practitioners to health promotion content and processes in a user-friendly, online educational format, we have the potential to expand health promotion capacity throughout the healthcare environment. The need for health promotion in today's healthcare environment is critical; the possibilities for expanding capacity are both challenging and exciting; and the time is now.

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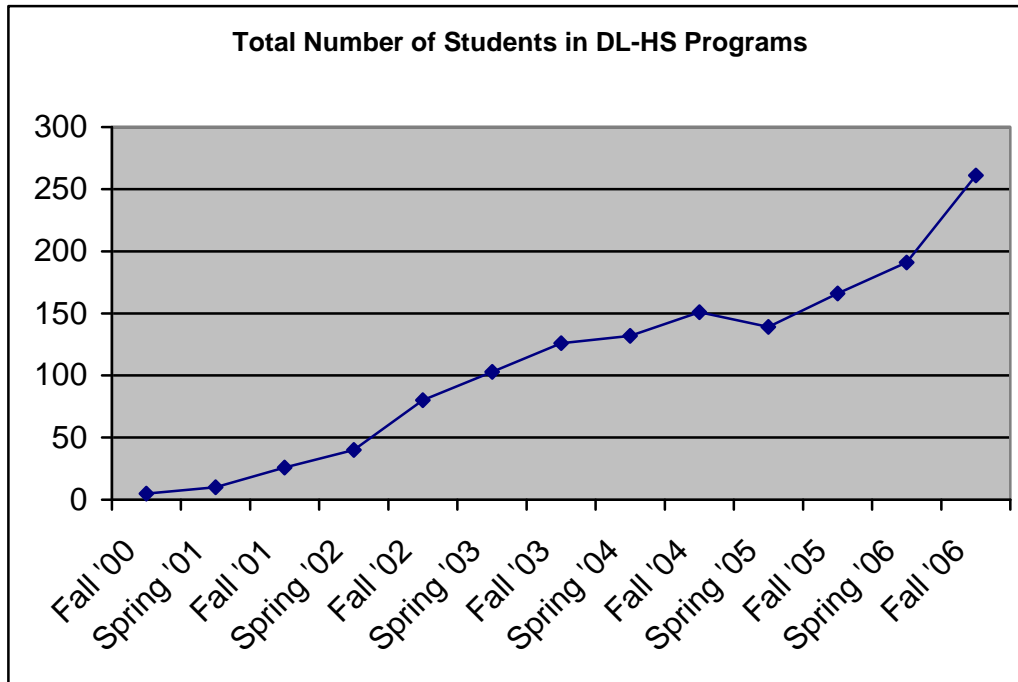
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Table 1. HP courses developed for on-line delivery

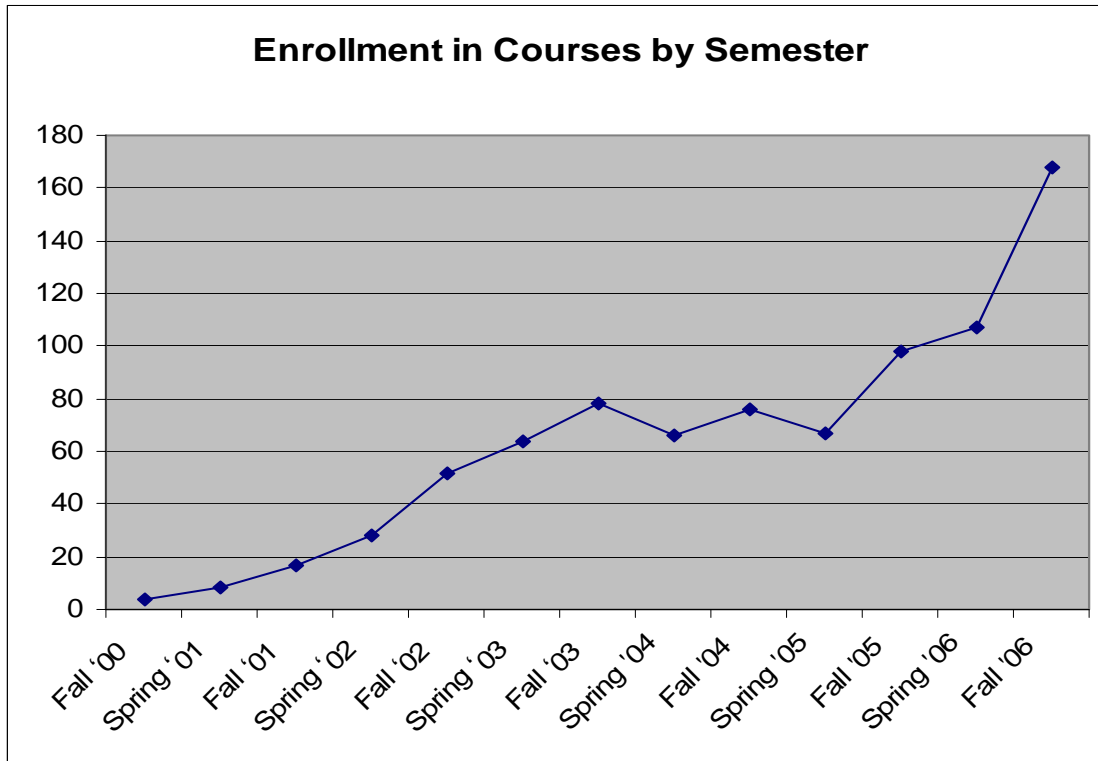
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| Health Principles |
| Epidemiology |
| Health Promotion: Planning, Implementation, and Evaluation |
| Human Diseases |
| Organization and Administration of Health Services |
| Theories of Health Behavior |
| Health Issues of the Southwest |
| Medical Sociology |
| Sociocultural Aspects of Aging |
| Substance Abuse Prevention |
| Health Promotion Practicum |
| Mind Body Health |
| Internship |

Figure 1. Number of students involved in the program by semester*



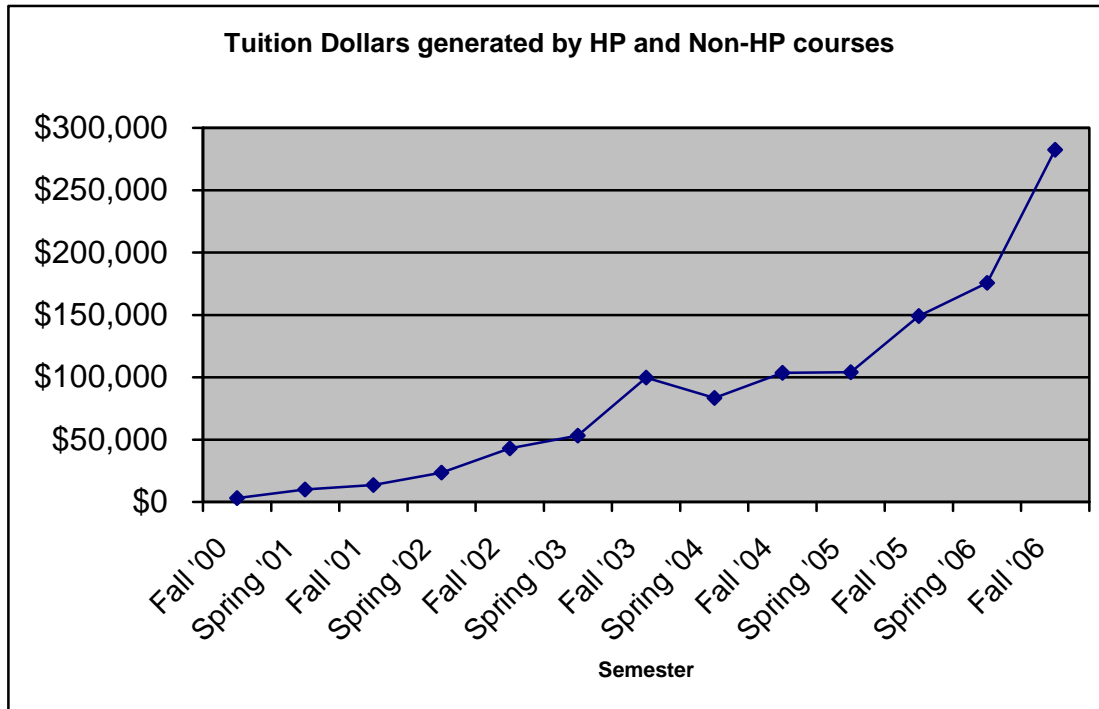
* Not all of the students represented on this graph are continuously enrolled in courses.

Figure 2. Actual student enrollments by semester*



* These data represent the number of students enrolled in at least one course during the semester. Most students enroll in two courses per semester.

Figure 3. Actual tuition dollars generated by students enrolled in the program*



* These data include tuition from all courses taken by students accepted into the health promotion distance-learning programs. *NOTE: The sharper increases from Spring '03 to Fall '03 and from Spring '06 to Fall '06 are influenced by tuition increases between those semesters.*