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Health Services in Community Colleges: A Review of National Programs and Needs

Joan M. Lang
University of Northern Iowa

Health Services in Community Colleges: A Review of National Programs and Needs

Abstract

The purpose of this study was to review available research pertaining to the role of student health services on college campuses, particularly as it relates to community college campuses. In addition, the present study explored the importance of student health services on improving the current health care system, and described student health services on Iowa's fifteen community college campuses.

HEALTH SERVICES IN COMMUNITY COLLEGES: A REVIEW OF NATIONAL PROGRAMS AND NEEDS

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Joan M. Lang

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Dr. Michele Yehieli, Chair, Research Committee

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Date

Dr. Sue Joslyn, Research Committee Member

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INTRODUCTION

Today's American health care system falls short of providing high quality care and choices for all Americans. According to 1997 figures, over 65 million Americans have inadequate health insurance coverage. These figures do not include immigrants, refugees, or migrant workers. Many Americans in inner cities and rural areas do not have access to quality health care, due to poor distribution of doctors, nurses, hospitals, clinics and support services. (US Government Hypertext [US Gov.], 1998)

The health care system, as a whole, is in deep crisis. Nearly 19% of America's gross domestic product goes towards health care. (US Gov., 1998) At the national level, the president, in 1993, attempted to pass through congress, "The National Health Care Plan", but was unsuccessful. In the absence of a national plan, a number of states have forged ahead with their own health care reform initiatives. A recent survey by Coopers & Lybrand found that states now spend more on Medicaid than on higher education. (as cited by Curtin, L., 1994).

As health care is changing, so is the nation's attitudes about health and wellness. Now, more than ever before, Americans are beginning to realize that wellness is more than the absence of illness. Wellness is choosing a lifestyle designed to enhance well-being. Wellness involves health promotion and disease prevention. With the aim to improve significantly the nation's health, Department of Health and Human Service Secretary Louis W. Sullivan released the report that set new health promotion and disease prevention objectives entitled, "Healthy People 2000". The three broad national health

goals for all American's are to (1) increase the span of health life, (2) reduce health disparities, and (3) achieve access to preventive services. (US Department of Health and Human Services [US DHHS], 1990)

In Healthy People 2000: National Health Promotion and Disease Prevention Objectives for the Year 2000, young people are recognized as a special population that experiences higher rates of morbidity, disability, and mortality than the general population for certain health risk behaviors, and four of the national health objectives specifically identified students and staff in higher education. (Gordan, 1995)

Student Health Services are an important source of primary and preventive care for college students. Today more than 1,650 colleges and universities maintain a student health center (American College Health Association [ACHA], 1998). College health services provide accessible, low-cost primary health care and health education to an estimated 80 percent of the nation's 14.5 million college students (Patrick, 1988) These student health centers are found at two and four year institutions, public and private, large and small.

The average age of college students at most institutions today is 26 years old, and more than 35 percent are underinsured or uninsured (ACHA, 1998). The student population is typically diverse in terms of race, gender, country of origin, and disability status. Student health services vary considerably in size, scope of services, and operational philosophy. Nontraditional students broaden the range and complexity of health problems seen in the campus health service, and many chronic medical problems actually begin during the college years. Increasing numbers of disabled students with

physical and mental impairments that substantially limit life activities are also enrolling at colleges and universities today (Grace, 1997).

The community college, in the United States, as it is know today has made great changes throughout it's history. Through their commitment to access and comprehensiveness, community colleges enroll more than 50% of the nation's students who are pursuing degrees in higher education (Boone, 1997). Courses and programs provide university transfer, occupational-technical, basic skills, and cultural education to people from all segments of the community. The number of community colleges is around 1,200. In 1992, these colleges enrolled 5.7 million credit students and another five million non-credit students (ERIC Clearinghouse for Community Colleges [ERIC], 1996). Women make up 58% of community college enrollments and the average age of students is 29 (ERIC, 1996). In the 1992 fiscal year, institutions of higher education spent $156 billion, while community colleges expenditures totaled just over $18.8 million or 12.1% of the total (ERIC, 1996).

In addition to having the fewest resources, community colleges also have the largest populations of low-income and minority students who are generally more at risk for health problems due to their economic and social circumstances. A recent national survey of health risk behaviors showed students at community colleges are more likely to engage in high-risk behaviors such as unprotected sexual intercourse, frequent cigarette use, and the use of cocaine; than their counterparts at four year colleges (Douglas, 1997) How then do community colleges manage to care for the health of their students under these difficult circumstances?

The first major national study of health service programs at public community colleges was conducted in 1972. It found that less than one half (41.5%) of the two-year colleges operated student health service programs (Nichols, 1973). A follow-up study was done five years later in 1977 and found the percentage of colleges offering health service programs had increased to 51.3% (Nichols, 1979). There are no national statistics that have been done recently that give a complete overview of the health services available on community college campuses today (Ottenritter, 1998).

A thorough review of literature revealed that most states have no statewide requirements for student health service, leaving it to the discretion of each college. Iowa is among these states. According to Charlotte. J. Burt, Student Health Services Consultant for the Iowa Department of Education, after an extensive review of the Iowa Code and the Iowa Administrative Code, there are no rules and/or regulations requiring any health services beyond the twelfth grade (personal communication, Nov. 18,1998 and Nov. 23, 1998).

Purpose of the Study

The purpose of this study was to review available research pertaining to the role of student health services on college campuses, particularly as it relates to community college campuses. In addition, the present study explored the importance of student health services on improving the current health care system, and described student health services on Iowa's fifteen community college campuses.

Significance of the Study

The improvement in health in the past thirty years is due as much to the things people do for themselves as the things medical professionals do to them with high technology and expert training. This must continue as society strives to maintain wellness and prevent illness to help control medical costs.

According to the Centers for Disease Control and Prevention, among Americans under 24 years of age, four causes account for almost 70% of deaths: motor vehicle crashes, other unintentional injuries, homicide, and suicide. These causes are preventable and related to a few behaviors, especially alcohol and drug abuse, failing to wear safety belts and motorcycle helmets, and having firearms and other weapons (Deutsch, 1996). Among all age groups combined, three causes--heart disease, cancer, and stroke--account for nearly 70% of all mortality and a large amount of morbidity and expense (Deutsch, 1998). These conditions are also preventable and are substantially due to a few behaviors. These behaviors usually are established during youth, are interrelated, persist into adulthood, contribute simultaneously to poor health, education, and social outcomes, and are preventable.

Health has much in common with learning. Who is primarily responsible for making learning happen, the teacher or the learner? The teacher must create the conditions that allow the learner to maximize learning opportunities. Health must be understood in a similar way (Ottenritter & Barnett, 1998). Sometimes information alone is not enough. Instead, they use education policy and technology--as they did to increase

seat belt use or decrease smoking--to create a culture that increases the likelihood of healthy behavior.

Community colleges should care about the health of its students for several reasons. People don't learn well if they're not healthy. The success of the institution's academic mission depends not only on the instruction it provides, but also on the climate it creates. Its climate is about how students live, not simply how they do schoolwork. People of all ages need to engage in the process of good health, not just for themselves, but for partners, children, family members, and neighbors. College is often the last chance to help people become effective agents of health. Community colleges, have the largest populations of low-income and minority students that are generally more at risk for health problems due to their economic and social circumstances (Douglas, 1997), which represents an ideal environment for the provision of health services.

The field of college health traces it's roots back to the 1850s and '60's when US universities began to acknowledge the link between scholastic achievement and student health. It was during this time that physical education and hygiene began to be taught. Some medical schools began to appoint a physician-in-residence to look after the health of their students. In 1906, the nation saw the first large-scale, comprehensive health service on the University of California-Berkeley campus. Today more than 1,650 colleges and universities maintain a student health center, serving an estimated 80% of the nation's 14.5 million students. These student health centers are found at two- and four-year institutions, public and private, large and small (ACHA, 1998).

In 1961 the American College Health Association established and published the

Recommended Standards and Practices for a College Health Program. It was after this that it became evident that the populations and students of junior and community colleges presented different and unique needs. It was in 1971 that the American College Health Association prepared and published The Development of Health Programs for Junior and Community Colleges (ACHA, 1971).

The prevalence of student health services on community colleges campuses today are not known (Ottenritter, 1998). We do know that the financial resources, populations, and communities that they serve are quite different than their counterparts, the four-year colleges. In 1972 the first major national study of health service programs at public community colleges was conducted, and a follow-up study was done in 1977. The percent of community colleges offering health services in 1972 was 41.5% and in 1977 it was 51.3% (Nichols, 1979). Since this time, junior and two-year colleges have changed significantly. An extensive review of the literature has revealed that no further national statistics have been comprised on the subject. Nan Ottenritter, coordinator of Bridges to Health Communities, from the American Association of Community Colleges, confirms that there are no national statistics that give a complete overview of the health services available on community college campuses.

Methods, Design, and Data Description

The present study reviews the existing data available on student health services for college students, the impact of student health services on the health care system, as well as reviewing existing data on the benefits and prevalence of such services at

community colleges. The study goes on to identify and describe the existence of student health services of the fifteen community colleges in Iowa.

The design of the study was non-experimental and descriptive in nature. The extensive search of existing literature and research was conducted via EBSCO host periodical/Journal databases. The databases searched included: Academic Abstracts Full Text 1000; MasterFile Full Text 1000; CINAHL Nursing & Allied Health; ERIC Educational Index; and Medline. Additional articles were located from the references of the articles located from EBSCO host. The Internet was also used to locate various professional and government offices, organizations and individuals, such as, but not limited to: The Centers for Disease Control and Prevention; American Association of Community Colleges; American College Health Association; State Department of Education; and State Health Department.

Data of the prevalence and description of student health services of the fifteen community colleges in Iowa, were obtained from a thorough Internet search and by e-mailing the Chief Student Services Administrator, which was supplied by Steve Mahr, executive of the Bureau of Community Colleges from the Iowa Department of Education.

Delimitation's of the Study

The scope of this study focused on the fifteen community colleges in the state of Iowa. Data was collected by reviewing the web-sites of the community colleges in Iowa, and then validating that information by e-mail or phone by contacting the Chief Student Services Administrator at each college. A list of the names, addresses, phone numbers,

and e-mail address were provided by Steve Mahr, Iowa Department of Education, Bureau of Community Colleges. (personal communication, <steve.mahr@ed.state.ia.us> Nov. 17, 1998.

This study was delimited to research published within the past 30 years, in English on American community colleges.

Limitations of the Study

The following limitations were identified for this study:

1. Much of the research obtained about community college health services was 20 to 25 years old.
2. Many of the studies are descriptive in nature and are not based on scale experimental techniques.
3. Many of the studies describe and/or analyze student health services on college campuses without differentiating between two and four year colleges.

Assumptions of the Study

This study was conducted under the assumption that the Chief Student Services Administrators accurately and honestly described their college's student health services. Another assumption of the study was that the review of literature was thorough and that it accurately reveals the current status of student health services in America.

Definition of Terms

1. Health: is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity (World Health Organization)

2. Health promotion: an organized set of activities designed to assist individuals in making voluntary behavior changes that reduce their health risks, modify their consumer health behavior, and enhance their personal well-being and productivity.

3. Health services: includes those provisions made by the college to maintain student health on campus.

4. Health service programs: refers to those policies, practices, and procedures carried out by college administrators, instructors, counselors, and health workers.

5. Wellness: the ever-changing movement toward optimal well-being in all the area's of one's life through a combination of health education and related organizational, economic, and environmental supports to promote behaviors conducive to health (Grace, 1997)

CHAPTER II

REVIEW OF RELATED LITERATURE

Background

Literature identifies that college and university student health services provide a substantial share of medical care to a large number of individuals during a critical period of their lives. The kind of services offered and their quality, cost, effectiveness, and availability are all key issues. Most of the literature and research has grouped all colleges and universities, private and public, two-year and four-year together.

During the last twenty years or so, community colleges have grown drastically and changed the arena of higher education. The nation's 1,200-plus community colleges enroll more than 50% of the nation's students who are enrolled in higher education. What are community colleges doing about meeting the health care needs of its students?

The purpose of this study is to review the literature regarding student health services on community college campuses and describe the student health services on community college campuses in Iowa.

The review of literature will first look briefly at the image of health care of the nation, the shift from illness to wellness, and then at how student health services in higher education help to meet the health care needs of it's populations. It will then look specifically at community colleges and see how they differ from four-year colleges and how community colleges are meeting the health care needs of it's populations nationally and more specifically in the state of Iowa.

Image of Health Care of the Nation

Today's American health care system falls short of providing high quality care and choices for all Americans. Figures from 1997 data indicates that over 37 million Americans have no health insurance and another 22 million have inadequate health insurance coverage. These figures do not include immigrants, refugees, or migrant workers. Many Americans in inner cities and rural areas do not have access to quality health care, due to poor distribution of doctors, nurses, hospitals, and clinics and support services. (US Gov., 1998) Our nation's health costs have nearly quadrupled since 1980. Without reform, by the year 2000, one of every five dollars spent will go to health care (US Gov., 1998)

The health care system, as a whole, is in deep crisis. Health care spending now consumes 14% of gross domestic product, up from 9.1% in 1980. If nothing is done by the year 2000, nearly 19% of American's gross domestic product will go towards health care. (US Gov., 1998) At the national level, in 1993, President Clinton attempted to pass through congress, "The National Health Care Plan", but was unsuccessful.

Although President Clinton's original reform proposals were not approved, the House and Senate finally agreed on significant changes in healthcare legislation, and the President signed the new law--the "Health Insurance Probability and Accountability Act" (Mills, Gold, & Curran, 1996). Though the new law was designed to improve health insurance coverage, there are gaps in the law. Glaring omissions include elimination of preventive and mental healthcare benefits from coverage, lack of regulation of premium rates, and failure to provide for the estimated 40 million persons who are chronically

unemployed and uninsured, a portion of whom are college students (Mills, Gold & Curran, 1996).

In the absences of a national plan, a number of states have forged ahead with their own health care reform initiatives. States are struggling to devise politically acceptable ways to curb rising healthcare costs while improving access for their uninsured residents. According to Coopers and Lybrand, a recent National Conference of State Legislatures survey found that states now spend more on Medicaid than on higher education. (as cited in Curtin L., 1994).

The Shift From Illness to Wellness

Regardless of the direction or timing of the reform of the health care financing system, the nation's health status may not substantially improve without simultaneously improving the health of the public. Determinants such as: unsafe environments; unhealthy personal behaviors; and biologic, genetic, and socioeconomic factors account for more than one million deaths per year and untold levels of preventable morbidity and expensive (avoidable) health care in the United States (Baker, Melton, Stange, Fields, Koplan, Guerra, & Satcher, 1994).

As health care is changing, so are the nation's attitudes about health and wellness. Now, more than ever before, Americans realize that wellness is more than the absence of illness. Wellness is choosing a lifestyle designed to enhance well being. Wellness involves health promotion and prevention. As Charles Deutsch states, "Unlike medical care, health is not primarily individual, physical, and passive. Health is participatory and

profoundly social, with important emotional, mental, moral, and spiritual dimensions." (Deutsch, 1996) The improvement in health in the past thirty years is due as much to the things people do for themselves as the things medical professionals do to them with high technology and expert training. This must continue as we strive to maintain wellness and prevent illness to help control medical costs.

With the aim to improve significantly the nation's health, Department of Health and Human Service Secretary Louis W. Sullivan released the report that set new health promotion and disease prevention objectives entitled, "Healthy People 2000". The three broad national health goals for all Americans are to (1) increase the span of health life, (2) reduce health disparities, and (3) achieve access to preventive services. (US DHHS, 1990)

In Healthy People 2000: National Health Promotion and Disease Prevention Objectives for the Year 2000, young people are recognized as a special population that experiences higher rates of morbidity, disability, and mortality than the general population for certain health risk behaviors. Of the 300 goals outlined in Health People 2000, almost half are relevant to the characteristics, problems, and needs facing young adults and institutions of higher education today. Four of the national health objectives specifically identified students and staff in higher education. They are:

> 1) Reduce the proportion of high school seniors and college students engaging in recent occasions of heavy drinking of alcoholic beverages to no more than 28% of high school seniors and 32% of college students (Objective 4.7)
>
> 2) Increase to at least 50% the proportion of postsecondary institutions with institution-wide health promotion programs for students, faculty, and staff (Objective 8.5)

3) Provide HIV education for students and staff in at least 90% of colleges and universities (Objective 18.11)

4) Increase immunization levels.....through postsecondary education institutions to at least 95% (Objective 20.11) (Gordan, 1995)

According to the Centers for Disease Control and Prevention, among Americans under 24 years of age, four causes account for almost 70% of deaths: motor vehicle crashes, other unintentional injuries, homicide, and suicide. These causes are preventable and related to a few behaviors, especially alcohol and drug abuse, failing to wear safety belts and motorcycle helmets, and having firearms and other weapons (Deutsch, 1996). Among all age groups combined, three causes--heart disease, cancer, and stroke--account for nearly 70% of all mortality and a large amount of morbidity and expense (Deutsch, 1998). These conditions are also preventable and are substantially due to a few behaviors. These behaviors usually are established during youth, are interrelated, persist into adulthood, contribute simultaneously to poor health, education, and social outcomes, and are preventable.

Health has much in common with learning. Who is primarily responsible for making learning happen, the teacher or the learner? The teacher must create the conditions that allow the learner to maximize learning opportunities. Health must be understood in a similar way (Ottenritter & Barnett, 1998). Sometimes information alone is not enough. Instead, the use education policy and technology-as was done to increase seat belt use or decrease smoking-to create a culture that increases the likelihood of healthy behavior.

Student Health Services in Higher Education

As the nation focuses on reform in both health care and in higher education, college health services provide a model of prevention-oriented, accessible, and affordable health care for young adults. It is also a model of how a support service in higher education institutions can help assure the health and safety of the higher education community at large. In short, it is a model with the ability to provide high-level, cost-effective care with limited budgets (The American College Health Association web site, 1999).

Student Health Services are an important source of primary and preventive care for college students. None of the proposed healthcare reform plans directly address the provision of healthcare to college students (Woolard, Donohue, Crissman, Cole, 1995). For example, an estimated 24% (3 million) of all college students have no insurance at all, and another 18% to 24% are underinsured (Woolard, et al, 1995).

Healthy People 2000 (1990) lists reduction of unintended pregnancies, sexually transmitted diseases, and HIV (human immunodeficiency virus) as among its primary goals. These goals relate directly to the population being served by student health centers. According to Joycelyn Elders, MD, former US Surgeon General, "College health services have a critical role to play in health promotion and disease prevention through the provision of education, counseling, and clinical preventive services. This role is increasingly important as data indicates that as many as one in four adolescents is at risk of not reaching his or her full potential, often due to unprotected sex, substances abuse, violence, or other risk-taking behaviors"(Woolard, et al, 1995, p. 16).

Today more than 1,650 colleges and universities maintain a student health center (ACHA, 1998). College health services provide accessible, low-cost primary health care and health education to an estimated 80 percent of the nation's 14.5 million college students (Patrick, 1988) These student health centers are found at two and four year institutions, public and private, large and small.

The average age of college students at most institutions today is 26 years old, and more than 35 percent are underinsured or uninsured (ACHA, 1998). The student population is typically diverse in terms of minorities, proportions of men and women, sexual orientation, international students, and individuals with varying disabilities. Student health services vary considerably is size, scope of services, and operational philosophy. Nontraditional students broaden the range and complexity of health problems seen in the campus health service, and many chronic medical problems actually begin during the college years. Increasing numbers of disabled students with physical and mental impairments that substantially limit life activities are also enrolling at colleges and universities today (Grace, 1997).

The field of college health traces its roots back to the 1850s and '60's when U.S. universities began to acknowledge the link between scholastic achievement and student health. It was during this time that physical education and hygiene began to be taught. Some medical schools began to appoint a physician-in-residence to look after the health of their students. According to American College Health Association (1998), in 1906, the nation saw the first large-scale, comprehensive health service on the University of California-Berkeley campus. By 1920, well-established health center could be found on

may campuses across the country, and "a change in the pattern of college hygiene programs from a physical-education-centered program to a medical-centered program similar to the college health service of today" (Christmas, 1995, p.243) was occurring. When the baby-boomer generation entered college in the mid-60's, they caused an unprecedented expansion of higher education, including the need for student services (Christmas, 1995). Today more than 1,650 colleges and universities maintain a student health center, serving an estimated 80% of the nation's 14.5 million students. These student health centers are found at two- and four-year institutions, public and private, large and small (ACHA, 1998).

For college health programs to be effective, they need to concentrate on all of the dimensions of wellness: the spiritual, the emotional, the environmental, the social, the vocational, the intellectual, as well as the physical. In addition to caring for students with injuries and illnesses, wellness programs should reach out to students who do not present themselves for medical care (Grace, 1997). Murray DeArmond (1995) states, "very few healthcare settings have focused on prevention more consistently and effectively than health services on college and university campuses. College health has always dealt with the largest issues and concepts of health and wellness".

According to the American College Health Association's Recommended Standards for a College Health Program (1991), an effective college health services emphasizes certain features important to students and institutions of higher education.

These features include:

* Strong health education and campus outreach components focused on medical, psychological, and social aspects of healthier lifestyles;

* Preventive immunizations and surveillance services, including measles and hepatitis B immunization and tuberculosis screening;

* Strong student/consumer participation in planning and reviewing prevention, health education, and treatment services;

* Accessible, convenient, quality treatment services for the acute care of common medical and psychological health problems of young adults;

* Assistance in learning how to use the health care system and resources;

* Emphasis in short waiting times for special clinically based services not readily available in other health care settings, including confidential HIV testing, pregnancy testing and counseling, contraceptive services, evaluation and treatment sexually transmitted diseases, confidential evaluation and treatment of alcohol and other drug abuse problems, and mental health counseling and crisis intervention. (College Health, 1998)

Patrick and Fulop (1997) discuss the results of a structured process in which a group of college health professionals from California, along with others, examined trends affecting higher education and health. The six recommendations and strategies they identified in assuring the health of college students in California are:

1) Activities designed to improve the health of college students should be based on a clearly articulated vision consistent with the broader health objectives for the nation.

2) College health programs and services should be user driven.

3) College health programs should address community-wide health issues, be outcome oriented, and be accountable.

4) Intra- and intersector collaboration should occur as a means of sharing resources, providing stable financing, and assuring access to healthcare for college students in all settings.

5) Expand capabilities in Internet-worked electronic communication.

6) Prevention should drive the agenda of college health.

Under the category of health service research in higher education, most investigations have been concerned with health services in four-year institutions. The earliest study was published in 1908. as discovered by J. G. Lohr in 1973). Almost all of the studies were descriptive in nature and produced findings that provided insight into the extent to which health services had developed.

A stratified, random sample of 400 four-year institutions of post-secondary education in the United States was done in 1994 with a 73% response rate. The study found that of the 293 that responded, only eighteen institutions, approximately 6% had no health services. That means that almost 94% of the colleges that responded did have some type of health services for their students. The variance of type of services provided ranged from first aid and referral to full in-patient/out-patient services (Nicholson, Doss, & Charles, 1998).

The American College Health Association estimates that approximately 1500 institutions of higher education currently have a student health service or provide in some direct way for the health care of their students. This number includes virtually every state system of higher education and almost all private universities and colleges, four year and graduate level, which, combined enroll approximately 80% of the nation's college students or an estimated 10 million individuals. Small urban four-year institutions,

technical and trade schools, and many two-year commuter or junior colleges often do not provide student health services (Patrick, 1988).

A 1991 American College Health Association survey (conducted by Blue Cross/Blue Shield of Virginia and Southeastern Institute of Research., Roanoke, VA) of More than 400 institutions of higher education defined four patterns of services at Responding institutions. Core services included at most health centers were:

*Treatment of minor injuries (99%)
*Out-patient illness care (96%)
*Health promotion / education (95%)
*Non-prescription drug dispensing (93%)

Second tier services found at a majority of college health services included:

*Allergy treatment (78%)
*Alcohol / other drug counseling (74%)
*Mental health / counseling (72%)
*Diagnostic / lab tests (70%)
*Outpatient gynecological services (65%)
*Prescription drug dispensing (63%)

Third tier services at between 26% and 30% of the schools were:

*Occupational health
*Dermatology
*X-ray
*Orthopedics
*Ear / nose / throat
*Psychiatry

Fourth tier services found at less than 25% of colleges and universities included:

*In-patient care (22%)
*Outpatient surgery (21%)
*Employee assistance program (18%)
*On-site physical therapy (16%)
*Eye care (12%)
*Dental care (6%)

Ambulatory care, health education, sports medicine, as well as occupational and environmental health are the most common services college health centers offer and at least 50% of the health services provided consist of family medicine or ambulatory care, psychiatry, health education, immunizations, and sports medicine with cost containment typically achieved by staffing the health center with nurse practitioners or physician assistants who work with either part-time of full-time physicians (Brindis & Reyes, 1997).

That same 1991 survey conducted by the Southeastern Institute of Research for Blue Cross-Blue Shield of 400 colleges revealed that 85% of the funding for college health services were prepaid, with 46% from college general funds and 39% from separate, prepaid student health fees. An additional 5% came from service fees collected at the time of clinic visits; the remaining 10% reflected grant funding and gifts to campus funds, as was published by the American College Health Association in 1992.

However, changes in the institutional funding of programs are beginning to occur. At a number of large public institutions, institutional funding decreased from 45.5% in 1987 to just over 16% of the overall health budget in 1990, whereas student fee revenues increased from 34.4% to 63%. During this same period, the fee-for-service proportion represented 20.5% of the total budget, with a range of from 2% to 50%. Fees are now more commonly charged for certain services, such as injections for allergies, dermatology care, minor surgery, physical therapy, and orthopedic services (Aaron, 1991).

Community Colleges on the National Level

The U.S. community college, as it is know today, has made great changes throughout its history. The community college movement has a strong tradition of serving as the "people's college." Through their commitment to access ("open door policy") and comprehensives, community colleges enroll more than 50% of the nation's students who are enrolled in higher education (Boone, 1997). Courses and programs provide university transfer, occupational-technical, basic skills, and cultural education to people from all segments of the community. The number of community colleges is around 1,200. In 1992, these colleges enrolled 5.7 million credit students and another five million non-credit students (ERIC, 1996). Women make up 58% of community college enrollments and the average age of students is 29 (ERIC, 1996). In the 1992 fiscal year, institutions of higher education spent $156 billion, while community colleges expenditures totaled just over $18.8 million or 12.1% of the total (ERIC, 1996).

These numbers vary slightly according to the American Association of Community Colleges web site. Their 1996-1997 records indicate that 10.4 million students (5.4 million credits and 5 million non-credits) are enrolled in the nations community colleges, making up 44% of all U.S. undergraduates. The AACC's records also indicate the student profile of the national community colleges is:

*46% of all African American students in higher education
*55% of all Hispanic students in higher education
*46% of all Asian / Pacific Islander students in higher education
*55% of all Native American students in higher education
*46% of first-time freshman
*58% female
*42% male

*64% part-time
*36% full-time (12 credit hours or more)
*Average student age is 29 years

Nan Ottenritter is Project Coordinator for the Bridges to Healthy Communities program at the American Association of Community Colleges. She states:

> "Students of community colleges frequently are members of underserved groups and reflect, perhaps more accurately than universities, whose students are transients, the population of the community surrounding the institution. As open-door institutions, community colleges are a point of entry for many people who would otherwise not consider pursuing higher education; they support underserved community members in many ways:
> *Academically, with a variety of developmental course, tutoring, and instructional supports. In 1995, 100 percent of community colleges offered remedial education in reading, writing, or mathematics; 81 percent of four-year institutions did.
> *Logistically, with a wide range of course delivery options and support; and
> *Psychologically, with support services for building student success skills and coping with predictable life transitions."

Community Colleges in Iowa

According to the Department of Education (1997), Iowa has a statewide system of 15 community colleges. These public, postsecondary, two-year institutions are organized as comprehensive community colleges. Each college serves a multi-county merged area, which may vary in size from four to twelve counties; all of Iowa's 99 counties are included in one of these merged areas. Each community college has an "open-door" admission policy which guarantees Iowan's an opportunity for education assistance and career development regardless of previous educational attainment, or lack there of.

According to The Dallam Report (Fall 1998), for the fall of 1997; 52.5% of students enrolled in higher education in Iowa where enrolled in Iowa's community

colleges. This report also records for analysis the "Total Students Degree Credit Enrollment", which totals the number of credits a student is enrolled in that is being applied toward a degree. This report indicates that the "Total Students Degree Credit Enrollment" for Fall 1997 for Community Colleges was 60,620, compared to the "Total Students Degree Credit Enrollment" for the same period of time for State Universities was 66,363. For this same period of time the "Total Students Degree Credit Enrollment" for Private Colleges and Universities was 49,117.

Community College Health Services

Community colleges should also care about the health of its students for several reasons. People don't learn well if they're not healthy. The success of the institution's academic mission depends not only on the instruction it provides, but also on the climate it creates. Its climate is about how students live, not simply how they do schoolwork. People of all ages need to engage in the process of good health, not just for themselves, but for partners, children, family members, and neighbors. College is often the last chance to help people become effective agents of health. What better place than community colleges who has the largest populations of low-income and minority students who are generally more at risk for health problems due to their economic and social circumstances (Douglas & et al., 1997).

The first major national study of health service programs at public community colleges was conducted in 1972. It found that less than one half (41.5%) of the two-year colleges operated student health service programs (Nichols, 1973). A follow-up study

was done five years latter in 1977 and found the percentage of colleges offering health service programs had increased to 51.3% (Nichols, 1979).

Another attempt was made in 1977 by Anne Marie Novinger, the Health Counselor Nurse at Glendale Community College in Glendale California, to discover the current health needs at the time of community colleges, as well as to determine trends of the future by surveying 46 community colleges. However the purpose of the study was to solicit a variety of useful new ideas, not to solicit statistical data (Novinger, 1978). Many small uncontrolled surveys have been done similar to the one done in 1980 by J. E. Lindenbaum, R. J. Hunner, and R. W. Deisher. Their study was based on a survey conducted at a commuter community college in an urban residential area of Seattle, Washington, where there were no existing student health services. This school had an enrollment of 5400 student. Seventy-five unselected students were asked to complete a 31-item questionnaire. Even the researchers admit, this small uncontrolled survey was subject to a number of criticisms. The of the sample population as compared to the school population was skewed, and the survey population contained a higher population of unmarried students than in the overall college population. The study did show how different the needs of students are on commuter based community colleges verse community colleges with dormitory and/or housing provided. The study concluded that commuter community college students often live at or near home, and parental support, and are generally familiar with community facilities. This study as well as two other cited "studies at large mixed residential-commuter colleges have shown that living at

home or in home cities significantly reduces the frequency with which one uses college health services" (Lindenbaum, et al, 1981, p.225).

There are no national statistics that have been done recently that give a complete overview of the health services available on community college campuses today (Ottenritter, 1998).

In 1961 the American College Health Association established and published the Recommended Standards and Practices for a College Health Program. It was after this that it became evident that the populations and students of junior and community colleges presented different and unique needs. It was in 1971 that the American College Health Association prepared and published The Development of Health Programs for Junior and Community Colleges (ACHA, 1971).

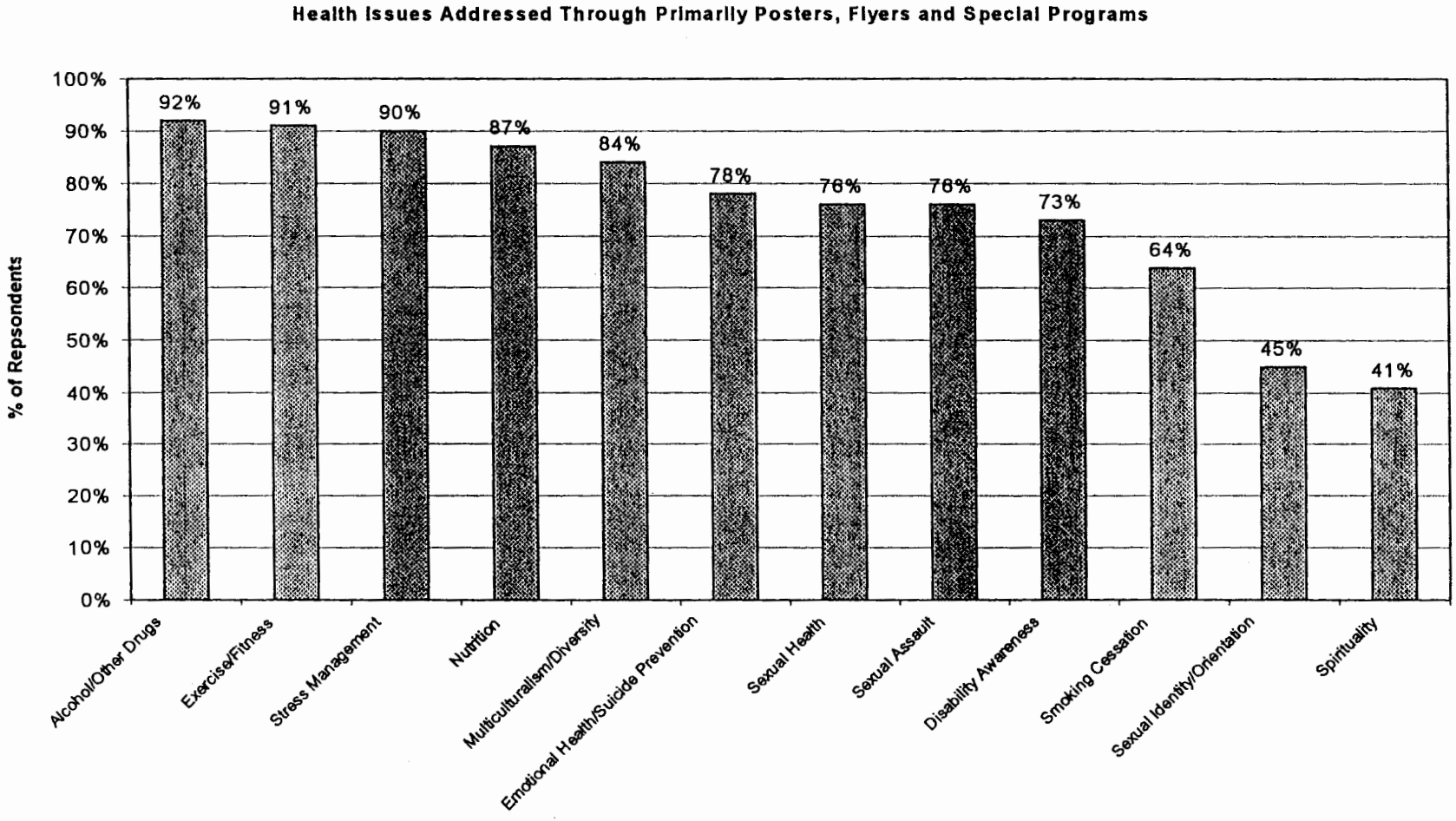
The prevalence of student health services on community colleges campuses today is not specifically known (Ottenritter, 1998). Statistics indicate that the financial resources, as well as the populations and communities that they serve, are quite different than their counter-part, the four-year colleges. In 1972 the first major national study of health service programs at public community colleges was conducted, and a follow-up study was done in 1977. The percent of community colleges offering health services in 1972 was 41.5% and in 1977 it was 51.3% (Nichols, 1979) Since this time junior colleges and two-year colleges have changed significantly.

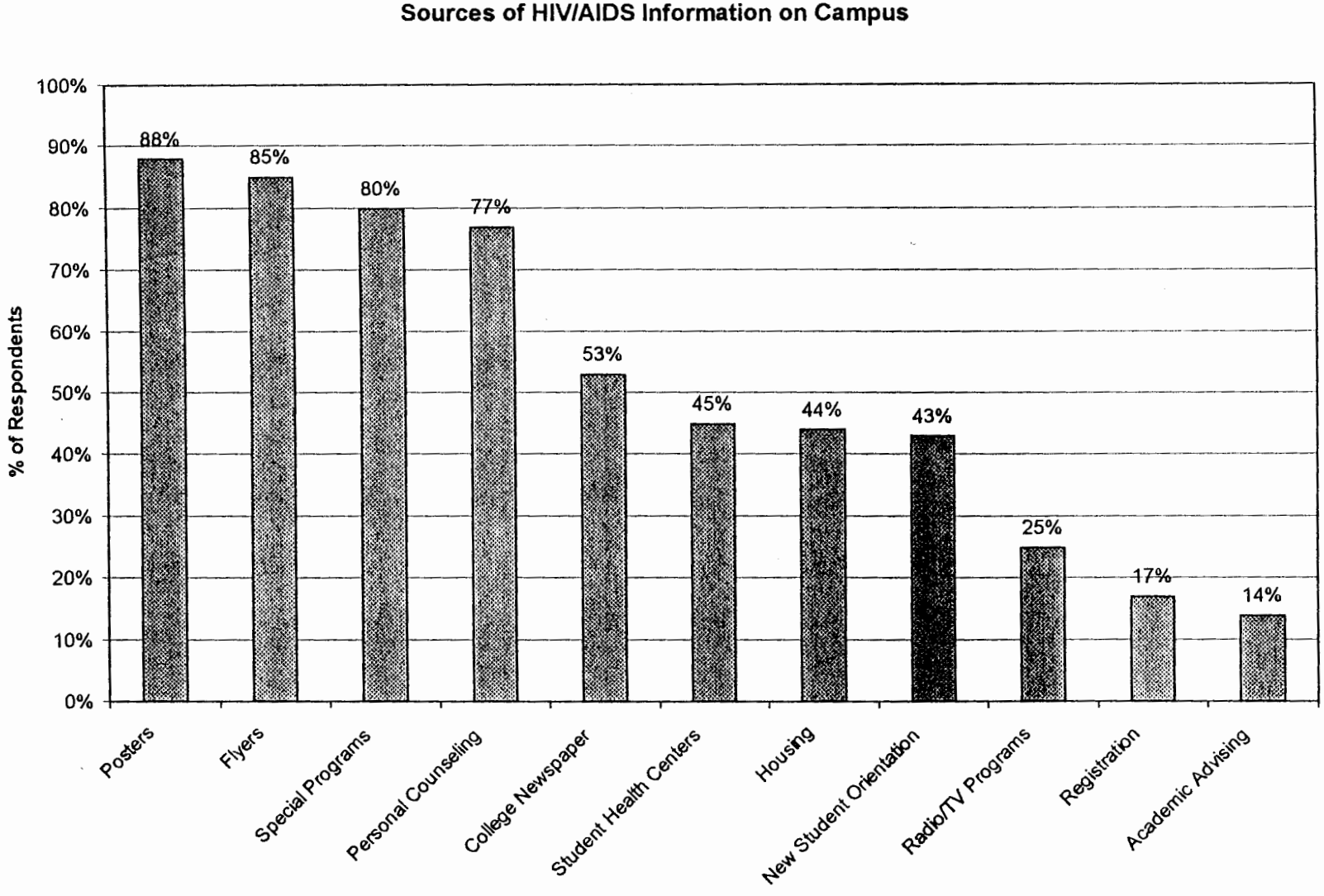
In 1990, a telephone survey was conducted by C. McIntyre of health services offered by California's community colleges. Of the 19 colleges surveyed, 13 provided health services. The level of services ranged from zero to extensive. The major factor in

the level of services provided was related to the presence of a physician on staff. Those colleges (one-fifth) which had no physician on campus limited their services to diagnosis for referral purposes only and dispensing of over the counter drugs. Treatment is generally provided only in emergency first aid situations where the nurse usually provided care until medical assistance arrives. Other common roles of the registered nurse is to provide personal counseling, make preliminary diagnosis and refer the student to the appropriate provider. Other duties include providing appropriate handout literature to the student and organize speakers and informational workshops for interested students. About four-fifths of the sample had physician time available on campus and provided a more extensive array of services. These colleges typically had a physician that contracted about ten hours per month and then a RN staff of one or more. Among the additional services provided by these programs were immunizations, testing communicable diseases, pregnancy testing, and drug prescriptions. The study also reviewed eight other large states, (Arizona, Florida, Illinois, Maryland, Michigan, New York, Texas, and North Carolina) and revealed that none had any statewide requirement for student health service, leaving its provision to local college discretion. Except for Illinois and Florida, few of the local community colleges were known to have on-campus services.

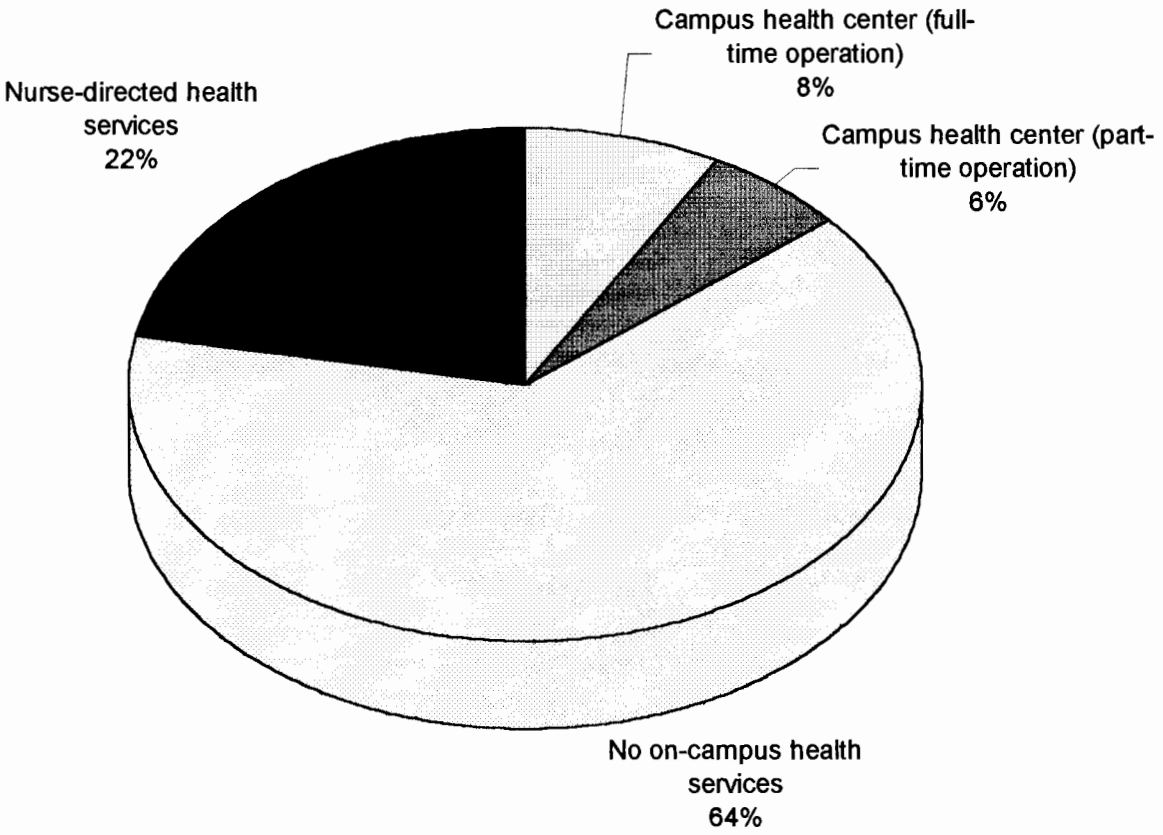
An extensive review of the literature has revealed that no further national statistics have been comprised on the subject. Nan Ottenritter, coordinator of Bridges to Health Communities, from the American Association of Community Colleges, confirms that there are no national statistics that give a complete overview of the health services available on community college campuses (personal communication,

<nottenritter@aacc.nche.edu>, Nov. 10, 1998). The American Association of Community Colleges' Bridges to Healthy Communities project supports community colleges in offering information and services to prevent HIV infection and other serious health problems in students. This five-year project is part of a national higher education initiative of the Centers for Disease Control and Prevention Division of Adolescent and School Health. In the latter half of 1996, this project distributed a national survey to the presidents and student health coordinators at all 1,100 community colleges with the purpose to learn how the college community learns about health and more particularly about HIV/AIDS. A total of 535 campuses responded, giving a total response rate of 48 percent. The study found campuses have adopted a variety of strategies for students and staff to learn about HIV/AIDS and other health issues. (Figure 2) These include passive programming such as information on posters, brochures, and web sites. More active measures include curriculum infusion, special programs, health centers, and inclusion of information in specific activities (e.g. advertisement, registration, and orientation. The following charts illustrate some of the approaches taken by community colleges.


Health Issues Addressed Through Primarily Posters, Flyers and Special Programs
% of Repsondents
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
92%
91%
90%
87%
84%
78%
76%
76%
73%
64%
45%
41%
Alcohol/Other Drugs
Exercise/Fitness
Stress Management
Nutrition
Multiculturalism/Diversity
Emotional Health/Suicide Prevention
Sexual Health
Sexual Assault
Disability Awareness
Smoking Cessation
Sexual Identity/Orientation
Spirituality


Sources of HIV/AIDS Information on Campus
% of Respondents
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
88%
85%
80%
77%
53%
45%
44%
43%
25%
17%
14%
Posters
Flyers
Special Programs
Personal Counseling
College Newspaper
Student Health Centers
Housing
New Student Orientation
Radio/TV Programs
Registration
Academic Advising

Provision of Health Services



At the community college level, a more limited range of clinical and health education services is generally offered, as compared to the 4-year and public institutions of higher education. These services are much more likely to be administered by a nurse. A strong focus of many of these college health programs is on outreach, health education, and health promotion activities that are often delivered through presentations in residence

halls or through peer education, classroom participation, and camp-wide programs (Sloane & Zimmer, 1993).

Community college student health services are funded almost solely through student health fees. Currently, colleges may charge up to $100 a semester or $7.50 a quarter. Students may apply to the school's board of governors, however for an exemption form paying fees on the basis of financial need. Thus, the total number of students enrolled in the college and the number who are granted fee exemptions directly affect the range and depth of health services that can be offered. In addition to fees, students often have to pay out of pocket for services or laboratory tests conducted at the student health center. Local college districts allocate less money to 2-year and community colleges to support student health services and provide it less often than do districts that fund 4-year institutions (Brindis & Reyes, 1997).

A thorough review of literature revealed that most states have no statewide requirements for student health services, leaving it to the discretion of each college. Iowa is among these states. According to the Iowa Code and the Iowa Administrative Code, there are no rules and/or regulations requiring any health services beyond the twelfth grade.

Iowa Community College Health Services

In an attempt to determine the extent of health services offered at the community colleges in Iowa, an Internet search and review of the web pages of the fifteen community colleges was completed. The information obtained from these web sites were

followed up by an e-mail to the community college to validate if the college did or did not offer student health services, and to further explain the services they did offer.

The review of this information revealed that of the fifteen community colleges, eight do not have any student health services. Seven of them do offer some type of student health services. Three of the seven colleges that provide student health services do so through a local health service provider that come on campus from one to three days a week and provide services. Nurses provide these services

Four of the community colleges provide extensive health services by a hired staff of one or more employees and the services are offered five days a week, and are available to full and part time students and to staff members at the college. Some of their services include health assessments or physicals; health fairs and educational presentations; immunizations and monitoring of current immunization status; treatment of minor illnesses and injuries, referrals for more extensive problems; as well as responding to emergencies.

Of the eight community colleges that do not offer student health services, Northwest Iowa Community College, Hawkeye Community College, and Southwestern Community College gave no additional information. Northeast Iowa Community College does not offer health services for students, but do use nursing students should a need arise. Iowa Lakes Community College and Scott Community College also responded that they do not offer student health services, but state that counseling and/or student services offer some screening and health awareness programs. Southeastern Community College, in place of offering health services, provide referrals to local

agencies and use the emergency room should the need arise for their residential students. Iowa Western Community College currently does not offer any type of services but state they are exploring the possibility of having a nurse practitioner on duty during day time hours, but nothing has been finalized at this time.

Of the seven colleges that do offer services, only one, Des Moines Area Community College provides physician services. A physician is available twice weekly on the Ankeny Campus during the fall and spring semesters. A registered nurse is on duty during all student contact days. The health service offers emergency treatment for students and staff who may become ill or injured while on campus. They also offer health screenings, encourage health through preventative measures including blood pressure monitoring, weight control, and also sponsor wellness activities. Currently the Boone and Urban Campuses do not offer services, however some of the Ankeny services extend to the other two campuses. No additional information was available of the extent of these services.

North Iowa Area Community College (NIACC) and Indian Hills Community College both have health services provided by Nurse Practitioner's. The services at NIACC are currently provided in partnership with North Iowa Mercy and provided by Cerro Gordo County Department of Public Health and are offered only one day a week for three hours during fall and spring semesters only. The college is currently considering moving the service on campus under the hospice of the college. Currently though they provide the diagnosis and treatment of illnesses with appropriate referrals as

indicated, pregnancy testing, sexually transmitted disease testing, HIV testing, as well as offering some counseling services.

Indian Hills Community College, Ottumwa Campus, just recently, (May 1999) hired a full-time Family Nurse Practitioner to initiate and staff a campus based health services. These services were created out of need. The Ottumwa Campus currently houses 750 students in dormitories and 250 in outlying housing. Physicians in the area are not accepting new patients, leaving students the emergency room as their only option when needing medical care. Services offered include: acute care for minor injuries and illnesses; stabilizing and arranging for treatment for emergencies; dispensing prescription and non-prescription medications; some laboratory and urine screenings; as well as out reach for health promotion and prevention programs.

The remaining four community colleges provide their services through registered nurses, ranging from three hours a week to ten hours a day, five days a week. Western Iowa Tech Community College contract with Marion Business Services to provide Share Nursing services four hours a week which provides students with referral services, education and some minor immediate assistance. Ellsworth Community College (ECC), a unit of Iowa Valley Community College District offers health care services to students, contracted through the local hospital, provided by a RN on site four days a week for three hours per day. ECC is a community college which has residence halls. The extent of services were not provided. Marshalltown Community College, the other community college of Iowa Valley Community College District, does not have residence halls and currently does not offer services on campus.

Iowa Central Community College in Iowa Falls has a full-time college nurse. She provides "drop-in" assistance to all students. She prepares an annual program of health services keeping with a theme for each month. These services are delivered in high traffic areas at the college or in classrooms. She makes herself available to faculty and staff for presentations, assists the Health Sciences department with their annual Health Fair, collaborates with community entities with regard to domestic assault, alcohol issues, etc., and makes all referrals for the college for intensive psychological assessments and therapies. She also works with the director of housing and orients the resident assistants in the dormitories on how to deal with health related issues during off-hours.

Kirkwood Community College offers the most extensive services of all the 15 community colleges in Iowa. They also provided the most detailed information of the services they do offer. They currently have 1.75 FTE nursing staff and a work study, offering services 8 am to 6 p.m., five days a week, throughout the year, on the main campus. The main campus has approximately 8000 students. Last year they had 4971 client visits with 275 doctor referrals, 13 ER referrals, and 10 ambulance calls. In the last four or five years they have experienced two full codes (cardiac and respiratory failure). They see between 25 and 40 patients in the office daily for various health issues: immunizations, TB test, colds, asthma, diabetes, panic attacks, mental problems, dressing changes, nebulizer treatments, antabuse observation, INH distribution, minor illness and injuries. They respond to about on to three emergencies a week. Emergencies include falls, seizures, chest pains, asthma attacks, diabetic crisis, etc. In addition they offer monthly programming of health related events such as flu vaccinations, blood drive,

provide or facilitate health promotion programs, maintain immunization records for the health students and screen, immunize, and manage health issues for their 400 international students. The Director of Campus Health, Diane Norton RN, MSN is currently working towards her family nurse practitioner degree which will allow services to be expanded, which the college has identified as a real need due to the increasing number of students who do not have health insurance.

CHAPTER III

SUMMARY AND RECOMMENDATIONS

Summary

Changes in attitudes about health and wellness along with the demand for health care reform are mandating changes in the health care delivery system in this country. Health care delivery systems can no longer just treat illness, but must also address prevention and promoting healthier life-style choices. Student health services within institutions of higher education provide not only treatment of injuries and illness, but also include health education, as well as health promotion and prevention. With the majority of mortality, morbidity, and disability seen in the college-age population related to lifestyle choices health education is major issue for college health services. A large volume of research documents the prevalence and description of the student health services in four-year colleges. These services range from first aid and referral services to full-service health centers manned by physicians and health educators of various levels.

Of the students enrolled in higher education, approximately one half of them are enrolled in either two-year colleges, trade-vocational, or community colleges. This population tends to have a larger number of non-tradition students. The average age is slightly older. Is from a low socioeconomic level, and includes a higher percent of women and minorities than it's counter-part the four-year college. All of these characteristics add up to higher risk-taking health behaviors.

Twenty-year-old statistics identify a lower percentage of community colleges offering their students health services than four-year institutions. These studies also identify that there is definitely a need for such services and that these services differ from four-year colleges. The lack of current research data clearly points out that this is an area that needs further research especially if community colleges want to keep pace with the four-year institutions in meeting the needs of the community at large.

Approximately half (47%) of Iowa's Community colleges offer some type of health services for their students. Three of them offer services just one day a week where as four of them offer services five days a week, to both full and part-time students as well as staff of the college. The extent of these services vary greatly. If Iowa's community colleges are to keep pace with the national and state demands further studies need to be completed regarding the perceived needs and demands of the students in the community colleges in Iowa.

A large majority of the research regarding the prevalence and description of student health services in higher education has been collected from and about four-year colleges and university. Another large body of research regarding student health services has been compiled by the American College Health Association. The ACHA organizes, governs, and compiles data regard college health for two and four-year colleges and universities, public and private, combined. Little research and data has been collected and analyzed about just two-year colleges. What little has been, was done in the 1970's.

Research findings of the 90's found that 94% of the surveyed four-year institutions provided some type of student health services (Nichol, Doss & Charles,

1998), and 80% of those surveyed from both two and four year colleges and universities combine offered campus health services (Patrick, 1988; ACHA, 1998). The research on only two-year colleges, was that of the 70's, which found that 41% to 51% of the two-year colleges offered any type of health services for their students (Nichols, 1973; Nichols, 1979). No research was found identifying why colleges did not offer student health services.

Iowa's figures fall within this range, with 47% of the community colleges offering some type of health services, but are well below the 80% of all colleges combined which offer such services.

Major changes have occurred within the two-year colleges/community colleges in the past thirty years. The structure and emphasis of these colleges have changed as well as the demographics of their students. These major changes make it very difficult to apply these near thirty year old statistics to the needs of today.

If Community Colleges in Iowa, as well as nationally, are to keep pace with the total needs of its students they need to address the issue of student health services. These services, at a minimum need to include provisions for emergency care of students and staff, organize and/or facilitate health promotion and health education programs, and provide referrals for those students in need of health services.

Recommendations

To determine current prevalence and description of student services, a large scale survey of community colleges across the United States would need to be conducted. The survey would need to include statistical data about the college, including enrollment size, and student demographics. The instrument would also need to include information about the location and housing status of the students. Some research has indicated that there may be a difference in the need for health services on a "commuter-campus" verse a "residential-campus". The survey would then need to identify the range and scope of health services being provided, not only for a comparison, but that might also be beneficial to colleges wanting to initiate new programs.

Another recommendation would be to conduct a survey at either/or the local, state or national level of community college students to determine their perceived need for such services. If such services were offered on their campus would they utilize those services. Also the survey could include identifying how they are currently obtaining their health care needs and whether they were adequately insured. These findings could certainly assist any community college that might be considering initiating such services.

At the Iowa level, a formal survey or interview of the 15 community colleges would have greater statistical and descriptive power than data retrieval. If the current national data on the prevalence and description existed then an analysis could be made of Iowa and the nation. Such information would be beneficial to college administrators, community college associations, and even legislators, since community colleges (post-

secondary institutions) are under the State Department of Education and are in part financed by state dollars.

The American Association of Community Colleges as well as the American College Health Association have voiced interest in the results of this study. Copies of this research paper will be shared with them at some point in the future.

Many of the Student Services Directors of the community colleges in Iowa have asked to see the results of this study also. An abstract of the findings will be shared with them either at one of their state meetings or through their published newsletter.

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