

THEOIS 1 1999



This is to certify that the

dissertation entitled

The Role of the Higher Education Administrator in Promoting Health and Fitness

presented by

Patty James Oehmke

has been accepted towards fulfillment of the requirements for

Doctoral degree in Philosophy

anis Major professor

Date _____ April 2, 1999

MSU is an Affirmative Action/Equal Opportunity Institution

0-12771

LIBRARY Michigan State University

PLACE IN RETURN BOX to remove this checkout from your record. TO AVOID FINES return on or before date due. MAY BE RECALLED with earlier due date if requested.

DATE DUE	DATE DUE	DATE DUE
JAN 2 2 2002		
0 ABR 0 8 200	2	

1/98 c/CIRC/DateDue.p65-p.14

THE ROLE OF THE HIGHER EDUCATION ADMINISTRATOR IN PROMOTING HEALTH AND FITNESS

By

Patty James Oehmke

A DISSERTATION

.

Submitted to Michigan State University in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Department of Educational Administration

ABSTRACT

THE ROLE OF THE HIGHER EDUCATION ADMINISTRATOR IN PROMOTING HEALTH AND FITNESS

By

Patty James Oehmke

Currently available information on the attributes and administration of existing, university, health-promotion and wellness programs is incomplete. For institutions of higher education with student populations of 20,000 or less, the Ball State study characterizes the role that the primary health-promotion administrator plays in defining program content. The Ball State study also investigates how program characteristics influence the impact of the program on the health and wellness of the target populations. For universities with populations greater than 20,000, no comparable inquiry exists.

This study investigates the attributes and administration of health-promotion and wellness programs in the eleven Big Ten universities, ten of which have student populations in excess of 20,000.

Big Ten universities were contacted for this study. A questionnaire of 25 prepared questions using closed, fixed responses was mailed to the health-promotion director at each Big Ten university. Descriptive frequencies and percentages are presented in tabular and graphical format. These frequencies and percentages are used to test for relationships among measured variables.

Four hypotheses about relationships among measured variables were tested. The hypothesis, that there is a relationship between program characteristics and the satisfaction

level of the primary health-promotion administrator, is rejected. The hypothesis, that there is a relationship between department affiliation and program characteristics, is accepted. In particular, stress management, substance abuse counseling and ergonomic awareness programs depend on department affiliation. The hypothesis, that there is a relationship between target audience and program characteristics, is accepted. In particular, stress management and substance abuse counseling programs depend on target populations, as well as the aforementioned department affiliation. The hypothesis, that there is a relationship between the educational background of the primary health-promotion administrator and program characteristics, is rejected.

A conclusion of the study is that it appears as if programming does not serve target population needs. For example, faculty and staff may need stress management and substance abuse counseling, but do not have access to such programs. Current use of computer technology warrants ergonomic safety awareness programs for all members of the university community.

Finally, there is a need for further research. A follow-up study is recommended to update the 1995 data used in this study, to determine how universities are responding over time to the challenge of increasing physical fitness, health and wellness in their clientele. Additional issues that could be included in a follow-up study could include need for and provision of child care, multiculturalism and health, changing demographics in target populations, increases in student debt and stress, etc. As we move into the next millennium, it is especially important to document and compare how Big Ten schools are responding to the current transitions in the health promotion field. Copyright by

Patty James Oehmke

DEDICATION

To my husband Jim and children, Theresa and Alexandra.

To my parents Wilford and Geraldine James, brother Robert, sister

Mildred and nephew Shawn.

ACKNOWLEDGMENTS

I would like to thank Dr. Moses Turner, my committee chair and Dr. William W. Heusner my dissertation advisor for their guidance, patience and support. I would also like to thank Dr. Lawrence Sierra and Dr. Marylee Davis for reviewing the dissertation, providing comments and editorial suggestions and Dr. John Dirkx for his valuable input.

TABLE OF CONTENTS

LIST OF TABLES
LIST OF FIGURES
LIST OF ABBREVIATIONS xiii
CHAPTER I. INTRODUCTION 1
Background 1
Statement of the Problem
Focus of the Research 5
Purposes of the Study
Need for the Study
Hypotheses
Methods
Operational Definitions
Limitations 11
Delimitations
Plan of the Study

CHAPTER II. RELATED LITERATURE 1	3
History of Physical Activity and Disease Prevention 1	3
The Contribution of Health Promotion to Physical Fitness 1	8
The Effects of the Environment on Physical Fitness and Health 1	9
Development and Growth of Health Promotion and Higher Education 2	20
Six Breakthrough Works 2	21
Cost Crisis 2	24
Consumer Consciousness 2	26
Mind/Body Awareness 2	26
Horrible Good Things	27
Industry Responsiveness/Initiative	27
Powerful Individual Voices	28
Other Movements	29
Research	0
Description of Wellness Program Characteristics	32
Strategies for Evaluating Wellness Programs	32
Summary	34
CHAPTER III. METHODS	57
Data Collection	57
Survey Instrument	8
Data Analysis	19

CHAPTER IV. RESULTS AND ANALYSIS OF DATA
Program Characteristics and Department Affiliations
Popularity of Programs Offered 41
Fees Incurred by Participants Using Programs
Background of the Primary Health-Care Administrator
Age of the Primary Health-Promotion Administrator
Educational Attainment of Primary Health-Promotion Administrator
Professional Development
Meetings Attended 1991-1995 48
Professional Memberships and Certifications
Health Promotion Courses Taught 49
Academic Interest of the Primary Health-Promotion Administrator
Composition of Target Population by Program
Job Satisfaction
Need for Program Expansion 55
Opportunity for Program Expansion 50
Inferences Pertaining to the Proposed Hypotheses
CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS 62

Review of Literature		52
Design of the Study	· · · · · · · · · · · · · · · · · · ·	53

Limitations	64
Findings and Conclusions	64
Implications for Further Research	66

ł,

LIST OF TABLES

Table 1. Number of Programs Offering Various Wellness Activities, by Program
Location
Table 2 . Popularity of Wellness Activities by University. 42
Table 3. Program Fees by Type of Fee and University. 43
Table 4. Professional Development Activities, by Type of Activity and University. 48
Table 5. Number of Seminars Attended, 1991-1995, by University. 48
Table 6. Professional Memberships and Certifications Held by the Primary Health-
Promotion Administrator, by University
Table 7. Courses Taught by Primary Health-Promotion Administrator, 1991-1995, by
University
Table 8. Job Activities that Primary Health-Care Administrators Find Enjoyable, by
University
Table 9. Program Expansion Needs, by University. 55
Table 10. Expansion Possibilities, by University. 56
Table 11. Proportion of Programming Aimed at Target Groups, by University, and
Sample Mean
Table 12. Components of Programs Whose Administrators' Area of Academic Interest is
Health Education
Table 13. Program Components by Administrator's Area of Academic Interest, Areas
other than Health Education

LIST OF FIGURES

Figure 1. Number and Average Years in Position of Primary Health Care Admi		Number and Average Years in Position of Primary Health Care Administrator,	nistrator,	
1	by	Gender	4	
Figure	2 .	Age Distribution for Primary Health-Promotion Administrators 4	5	
Figure	3.	Educational Attainment of Primary Health-Care Administrator	7	
Figure	4.	Academic Interests of the Primary Health-Care Administrator	1	
Figure	5.	Composition of Target Population by Program	2	
Figure	6.	Allocation of Primary Health-Promotion Administrators' Time by Activity.		
			4	
Figure	7.	Degree of perceived influence of program location on type of program 5	7	

LIST OF ABBREVIATIONS

AAA	American Aerobics Association
AAHPERD	American Association of Health, Physical Education, Recreation and
	Dance
AASECT	American Association of Sex Education Counseling Therapists
ACA	American Counseling Association
ACHA	American College Health Association
ACSM	American College of Sports Medicine
AEA	Aquatic Exercise Association
AFB	Association for Fitness in Business
ANA	American Nursing Association
АРА	American Psychological Association
АРНА	American Public Health Association
CDC	Centers for Disease Control
CHES	Certified Health Education Specialist
GNP	gross national product
IAR	Institute for Aerobic Research
IDEA	International Dance-Exercise Association
JOHPER	Journal of Health, Physical Education and Recreation
MPHA	Minnesota Public Health Association
MSU	Michigan State University

NASULGC	National Association of State Universities and Land Grant Colleges
NIH	National Institutes of Health
NIRSA	National Intramural Recreational Sports Association
NWIRC	National Wellness Information Resource Center
SOPHE	Society of Professional Health Education
UM	University of Michigan
USDHHS	United States Department of Health and Human Services
UWSP	University of WisconsinStevens Point

CHAPTER I. INTRODUCTION

Background

In 1961, Dr. Halbert Dunn launched the health promotion--wellness movement. Dunn defines wellness as "an integrated method of functioning which is oriented towards maximizing the potential of which the individual is capable, within the environment where they are functioning" (Dunn, 1961, p.4). Since 1961, many have tried to define the term "health-promotion," with little agreement about what differentiates health promotion and wellness. Consequently, health promotion and wellness are currently used interchangeably.

A number of wellness models have been established since 1961. The major tenet of each model is illness prevention. By teaching individuals how to function more efficiently and effectively, illness prevention reduces dependence on the health care system. Such dependence has drained individual and corporate financial resources and has undermined the importance of self-reliance (Warner, 1984).

Largely through the efforts of the University of Wisconsin--Stevens Point (UWSP), the wellness movement has moved from the business sector to higher education. The Student Life Department at UWSP sees the student as a whole person, and therefore feels it is their responsibility to educate more than the student's intellect.

The development of campus wellness/health promotion programs can be attributed to the following:

- The increasing amount of evidence supporting the belief that many of the causes of death before age 40 are the result of behaviors established during adolescent and young-adult years (Hettler, 1986).
- The increased need for the integration of psychomotor, emotional, physical and mental development; (Opatz, 1985).
- The belief that human development is continuous and cumulative; (Opatz, 1985).
- The belief that development occurs when change is planned; (Opatz, 1985).
- The observation that a wellness program enhances the university relationship between faculty, staff and students when these groups work together (Opatz, 1985).
- The fact that people of all ages who are usually inactive can improve their health and well-being by becoming moderately active on a regular basis (USDHHS, 1996).

The UWSP wellness promotion model and program is the most researched program supporting University health promotion. The program, established in 1972, is incorporated into the student life program. One of its important characteristics is the involvement of the Department of Student Affairs. Through the efforts of the Student Life Department, the program has developed a mission statement which is consistent with and supportive of the overall goals of the university (Opatz, 1985). One of the most interesting features of the UWSP wellness program is the fact that it is incorporated into the academic life of the university. Classes are offered that addresses the important role of positive lifestyle choices as it pertains to the context of public health.

The transition of health care from the traditional method of treating the illness to health promotion--preventing the illness--has been evolving for approximately 40 years. This study recognizes the historic perspective on the importance of regular physical activity and its impact on reducing the risk of disease and illness, and seeks to document this transition. In the 1950s, the health benefits of exercise were centered around participation in team sports. In the 1970s, emphasis switched to intensive aerobic exercise. Today, we understand "the importance of regular moderate physical activity for virtually all Americans" (CDC, 1996). 1996 witnessed the first ever Surgeon General's report on physical activity and health. Then Acting Surgeon General Manley stressed that "physical inactivity is a serious nationwide health problem" (CDC, 1996). In 1997, Health and Human Services Secretary Donna Shalala emphasized the importance of 30 minutes of moderate physical activity per day. A 1999 study by the Cooper Institute confirmed the importance of moderate exercise as part of a lifestyle. The challenge today is to reduce inactivity and to improve health through increased physical activity. The rewards for meeting the challenges are significant--"prevention of premature deaths, unnecessary illness and disability; controlling health care costs; and maintaining the quality of life during old age" (CDC, 1996).

There is an increasing interest in exercise and fitness programs on college campuses as administrations begin to understand that wellness is highly compatible with their missions (Leafgren & Elsengrath, 1986). While these programs each incorporate some characteristics of the UWSP paradigm, it is inevitable that each university makes modifications, enhancements, and in the face of declining budgets, curtailments of the

scope of the offerings which may cater to participants interests. Consequently, in the United States, university health promotion activities and curriculum may differ widely across institutions.

Statement of the Problem

Currently available information on the attributes and administration of existing, university, health-promotion and wellness programs is incomplete. For institutions of higher education with student populations of 20,000 or less, the Ball State study characterizes the role that the primary health-promotion administrator plays in defining program content (Schmottlach). The Ball State study also investigates how program characteristics influence the impact of the program on the health and wellness of the target populations. For universities with populations greater than 20,000, no comparable inquiry exists.

This study investigates the attributes and administration of health-promotion and wellness programs in the eleven Big Ten universities, ten of which have student populations in excess of 20,000.

Examination of health-promotion in universities is especially important at this time, for several reasons: 1) Health care costs are perhaps the most pressing budget problem faced by universities today. For example, Michigan State University projects a 9.4% increases in health care costs for fiscal 2001 (Office of the Provost), the highest projected rate of increase of any major budget item. 2) large universities are returning to the idea that whole-student development is part of the university mission (NASULGC). 3) Universities have a renewed interest in using physical activity as part of a program to control specific campus problems such as alcohol abuse. 4) Universities are recognizing the importance of health promotion activities in promoting general improvements in the health of their clientele groups.

Focus of the Research

This investigation provides information about university wellness programs and their administration by examining the characteristics of wellness models in Big Ten universities. Information is based on primary-data collection from a posted questionnaire. Eight of the schools contacted responded to the survey. The analysis begins with descriptive assessments of the programs and the role of the primary health promotion administrator. These descriptive analysis will help to refine hypotheses about the role of the primary administrator and the nature of the wellness program as well as to suggest possible methods of testing such hypotheses. Qualitative analysis, and descriptions will provide formal tests of the hypotheses. Finally, conclusions were drawn about effective methods for administering university wellness programs.

Purposes of the Study

The general objective of the study was to understand how different administrative methods, department affiliations, target populations and administrative backgrounds

determine the characteristics of health promotion programs currently available at Big Ten universities. To achieve this general objective, the paper has three specific purposes:

1) To define relationships among program characteristics, program locations and personal characteristics of the primary health-promotion administrator.

2) To understand how primary health-promotion administrators view their roles as health-promoters in universities in the Big Ten.

3) To identify department affiliations, target populations, programming content, characteristics and the background of the primary administrator of wellness programs.

Need for the Study

The growth and implementation of wellness models or programs on college campuses in the last 20 years has been tremendous. Growth in this area is expected to continue due to increased interest in personal health and morale, the emphasis on increasing positive health behaviors (Opatz, 1985), and the rising cost of curative medicine. Because most programs are in their infancy, a study of the characteristics of existing programs is in order.

The actual impact of wellness programs on universities is unclear because a large number of programs are in their formative stages. However, even with the lack of such information, wellness programs are steadily gaining support. Nay (1985) believes that data supporting a positive financial impact of wellness/health promotion are questionable due to unscientific methods of data collection, the lack of adequate controls and the use of inappropriate research designs. Contrary to Nay's belief, recently collected data which are less susceptible to these criticisms corroborate the positive impacts of wellness programs (Keraghan & Giloth, 1988). In addition, descriptions of beneficial effects of health promotion and job satisfaction provide anecdotal support for the idea that wellness has a positive impact within colleges and universities (Ardell, 1985).

The potential for dramatic impact on campuses is evident through the increased interest in the wellness movement. The university provides good professional resources, facilities and a receptive population. The education provided through programs, literature and peer pressure benefits students, staff and administrators through improved academic performance, research and overall work performance (Fletcher and Anderson, 1986). The university benefits from decreased sick time and absence from work. The implementation of a health promotion program could be a cost-effective approach to modifying unhealthy behaviors and changing them into beneficial, health promotional behaviors. Illness prevention is the major goal of most participants and professionals in wellness programs.

Arguments supporting university health promotion include the following:

- The image of the sponsoring organization is improved; employers can help increase employee morale and improve the work environment which may lead to increased productivity especially during budget cuts.
- The opportunity to teach participants to use services and increase self-care skills, therefore decreasing the need to rely on expensive health care services.
- The improvement of the quality of the work environment, health care and the negative effects of work ameliorated (Kernaghan and Giloth, 1988).

The support of university health promotion tends to lean toward implementation of programs which improve student and employee morale. A happy individual is more pleasant to interact with and easier to employ (Ardell, 1985).

An argument which may prevent universities from implementing health-promotion programs is the difficulty of evaluating program success. The methods of evaluation which currently are used do not take into consideration that emotional well-being is difficult to measure. Current financial evaluation is inconclusive; therefore, it is hard to justify funding for a program when one does not know if the program is successfully decreasing costs.

The location of these programs on campus is another concern. Are they most effective when they are integrated with existing programs or as independent activities? Currently, the health-promotion professional has no single, formalized career-path (Opatz, 1985). Individuals involved in health-promotion programs have diverse academic backgrounds, levels of experience and areas of expertise. The variation in qualifications is evidence of uncertainty about the type of promoter to hire. Integration with existing programs, such as in the UWSP model, might be the least costly; but, once integrated within a current department, the health promoters might find it difficult to ensure adequate funding or program flexibility. There is the additional concern of how to relate the health promotion program to other university activities such as traditional medical care, physical education programs, and health education programs.

This study identified specific program characteristics and the backgrounds of primary administrators of programs which are deemed to be successful. It was expected

that as programs were examined, there would be characteristics and interest areas which would appear frequently during the study and thus not be specific to any one program. Some successful programs also were expected to exhibit unique characteristics. The degree of congruence between participant and administrator's perceptions of the programs was quantified. Consequently, the study evaluated these questions in an effort to contribute to the growing pool of information available regarding the content and evaluation of wellness programs in higher education.

Hypotheses

Because most health promotion programs are in their infancy, an evaluation of program characteristics as well as the academic interests of primary administrators is in order. To examine current health promotion programs, these hypotheses tested:

- 1) There is a relationship between job responsibilities and the satisfaction level of the primary health promoter.
- 2) There is a relationship between department affiliation and program characteristics.
- 3) There is a relationship between target audience and program characteristics.
- 4) There is a relationship between the educational background of the primary health-promoter and program characteristics.

<u>Methods</u>

Big Ten universities were contacted for this study. A questionnaire of 25 prepared questions using closed, fixed responses was mailed to the health-promotion director at each Big Ten university. Descriptive frequencies and percentages were used to test for relationships among measured variables.

Operational Definitions

These terms which were used throughout the study are defined as follows:

<u>Health Promotion</u>-- The act of encouraging behaviors which increase the opportunities for positive health practices to develop, thereby improving an individual's capacity to function within the organizational culture or environment.

Health Promotion/Wellness-- These terms are used interchangeably.

<u>Participation rate</u> -- The number of times per (year, term, semester, or other unit of time) an individual uses a facility or program.

Participant -- An individual who uses facilities or programs.

<u>Health Promoter</u>-- An individual who is engaged in the delivery of the program(s) to the participant.

<u>Health-Promotion Administrator</u>-- Titular head of health-promotion activities at a university.

<u>Health-Promotion Facilitator</u>-- An individual who has daily contact with participants and is involved with the day-to-day operations of the program.

<u>Role</u>-- Those behaviors which are characteristic of one or more persons in a context (Biddle, 1979).

<u>Specific Characteristics</u>-- Features of programs which are developed within a specific institution.

<u>Common Characteristics</u>— Features of programs which are thought to be standard in most or all programs.

Limitations

One limitation of this study is the reliance on the accuracy of the data reported by the participating programs and individuals. There may be differences between the information provided and the programs which are delivered to the participants. All data will be analyzed acknowledging this limitation.

A second limitation is the possibility that the health promoter as defined in this study may not be the individual who responds to the questionnaire.

The third limitation may include multiple programming across campus which may not be recognized by the health promoter responding to this questionnaire as a significant influence on their programming.

The fourth limitation is the small sample size and the power of the statistical analyses. A small sample may diminish the accuracy of the percentages, and raises the possibility that results may attribute importance to an artifact that may only be visible because of the small sample size.

Delimitations

The participants and administrators surveyed will be limited to the following areas of health promotion:

- Physical fitness/exercise.
- Nutrition education.
- Stress management.
- Health-risk appraisal.

- Lifestyle inventory.
- Fitness evaluation.
- Cholesterol screening.
- Weight management.
- Health fairs.
- Smoking cessation.
- Blood-pressure screen.
- Ergonomics.
- Substance abuse.

The study will be limited to Big Ten universities.

Plan of the Study

Chapter I introduces the problem, the focus, and the need for the study. Chapter II reviews pertinent literature. Chapter III describes the procedures and methods used to collect data. Chapter IV describes the analytical methods and the analysis of the data. Chapter V includes the summary, conclusions, recommendations and significance of the study.

CHAPTER II. RELATED LITERATURE

History of Physical Activity and Disease Prevention

The health leadership of the early 1950's believed that the body should be conditioned for the rigors of war but neglected to prepare the body for the stressors of everyday living (Wolffe, 1961) <u>A Collection of Papers Presented at the Institute of Normal</u> <u>Human Anatomy Viala Regina Elena, 289 and The Ministry of Foreign Affairs Rome, Italy</u> (pp. 75-81). Dr. Joseph B. Wolffe, Medical Director of the Valley Forge Hospital in the 1950's, believed in the prevention of disease through health education and exercise. As early as 1961, there was reference to a breakdown between the medical doctors concerned with the treatment of disease and the non-medical professionals who believed in the prevention of disease through exercise (Wolffe, 1961).

According to Wolffe, the following beliefs regarding exercise and the fight for survival have been a part of every phase of human advancement:

- The first law of survival was the need for humans to "earn their bread by the sweat of their brow"--so that food may metabolize into energy.
- The ancients believed fitness was the *sine qua non* of survival. Primitive humans had to be able to run, climb, jump and throw to provide for their needs and to escape constant threats to their lives; only the fit survived (Miller, Allen, 1986).
- The Greek physician, Galen, wrote about the value of exercise planned for specific parts of the body.
- The Hebrew philosopher and physician, Maimonides, stressed the importance of exercise and good health long before the invention of labor saving devices.

The physiologist, Pavlov, said gardening "gave joy to his muscles."

.

Wolffe, after 30 years of work as a cardiologist, believed that there are empirical regularities which show a direct correlation between sedentary lifestyles and the rising incidence of coronary heart disease (Wolffe, 1961). It is well documented that the incidence of cardiovascular disease quite often is highest in those individuals who are least active (NIH, 1995). The sedentary lifestyle of the United States population is currently at an all-time high. A reduction in the level of inactivity helps to decrease the amount of cardiovascular heart diseases attributed to e sedentary lifestyle.

Surveillance programs on the physical activity of U.S. adults have revealed that approximately one-third are not physically active enough to experience any of the healthy benefits of exercise (NIH, 1995); furthermore, women are slightly less active than men. The importance of improving activity levels and health habits has begun a new and revitalized health-promotion movement. The belief that good health habits improve the quality of life has caused those interested in promoting health to investigate how our sedentary lifestyle evolved to be so prevalent.

The development of inactivity is primarily due to labor-saving technology which has decreased the amount of physical work required for daily living. Approximately one hundred years ago, 6% of the energy used to produce goods was mechanical; the remaining 94% was produced by either animal or human muscle (Miller, Allen, 1986). Currently, as much as 94% of all energy used is mechanical ,and approximately 70% of the working population do not perform tasks which require manual labor (Miller, Allen, 1986).

As societies become more sedentary and more participants become observers, shifts in overall physical health and the capacity for manual labor follow. The United States is a nation of an increasing number of sedentary observers; we hold athletic competitions in large spectator arenas, and television allows an even greater number of spectator events to occupy a larger portion of our leisure time. Physical degeneration can hit early and quickly.

Among children, girls become less active than boys at an earlier age. As children approach adolescence they become even less active and the first signs of being overweight appear (NIH, 1995). If one were to increase the amount of active time for children and youth, the delay or prevention of sedentary behaviors could help reduce the number of inactive adults.

According to the National Institute of Health, at the age of 12, approximately 70% of children report being physically active; by age 21 the numbers have decreased to approximately 42% for men and approximately 30% for women and the percentages steadily decrease with age. The most recent statistics show that only 20% of all adults participate in regular, sustained, large-muscle physical activity five times per week at least 30 minutes per session; and approximately 14% participate in vigorous physical activity at least three times/week for 20 minutes per workout (USDHHS, 1996).

The fitness benefits of exercise have been widely documented, whereas the health benefits have only been recognized recently. However, it is now known that regular physical activity can reduce or slow down a number of age-related illnesses (Lampman, Savage, 1988).

In his 1961 Presidential Message to the schools on the physical fitness of children, President Kennedy stated that:

The softening process of our civilization continues to carry on its persistent erosion. We must increase the number of facilities and the time devoted to physical fitness. We must invigorate our curricula and give high priority to the crusade for excellence in health and fitness (Kennedy, 1961).

There was the suggestion that all aspects of communities that could help improve fitness join the effort to improve the status of health of the American population, especially its youth. Currently, there are community action committees designed to promote physical activity among its citizens. The committees are engaged in developing intervention plans to help boost physical activity and encourage the American population to take an interest in improving lifestyle through physical activity.

A joint committee representing the American Medical Association and the American Association for Health, Physical Education, and Recreation released the

following statement in 1964 regarding fitness:

Fitness for effective living has many interdependent components involving intellectual and emotional, as well as physical factors. These differ in relative importance from one period of life to another, depending upon varying individual roles and responsibilities. But in every part of life, each of these factors is significant. (JOPHER, 1964)

Fitness depends upon good health; it relies upon freedom from disease as well as enough strength, agility, endurance and skill to meet the demands of daily living (Guild, Jung, Ryan, Montoye, Moorehouse, Scott, Hein, 1964). The extent to which one achieves a healthy lifestyle is dependent upon the inheritance of good genetic material and the dedication to develop a desirable level of fitness through healthy living practices and exercise. Fitness also requires individuals to use their personal health knowledge and to make rational decisions based upon that knowledge. Looking at life as a laboratory, the medical and non medical professionals have been encouraged to provide the public with knowledge of the total fitness concept; IE, physical, emotional, moral and intellectual development. Because of the need to develop healthy habits early on, and given the relativity high rate of school attendance, the most sensible place to begin fitness education is in the schools.

There is belief that health facts have not become a part of our value system. People do not behave in a manner consistent with what they know about health behaviors and the medical consequences that those behaviors trigger (Willgoose, 1965). Unless health education becomes woven into our personal values and is used when one is making decisions that pertain to health, it will continue to be a "take it or leave it" kind of education (Willgoose, 1965). It is believed by Willgoose that the American society is afflicted by a disease termed "value illness". Value illness is illustrated in the case of an adult knowing what to do, but is not motivated to do anything about the problem (Willgoose, 1965). Symptoms of this disease are evident in the field of health behavior where individuals who are knowledgeable act as if they are indifferent to the results of their acts (Willgoose, 1965). Their personal moral standards of good, bad, right or wrong do not oblige them to do what they know is best. Individuals who are good role models are generally effective teachers of health courses. An instructor who can be seen practicing positive health behaviors and who leads by example may be the best teacher to quell the "value illness" syndrome. Willgoose reports there is a need for research in which

the attitude-behaviors of health practices are examined. The need to develop a method by which to teach these behaviors is of particular concern. This study will investigate if such a program currently exists on college campuses.

The Contribution of Health Promotion to Physical Fitness

There was discussion by the fitness professionals in 1964 as to whether it was more important to develop the habit of being physically active or to teach one how to develop high levels of fitness (Weiss, 1964). There was a fear that overemphasis on physical fitness in schools might discourage individuals from participating in physical activity later in life. Suggestions were made to raise fitness to a moderate level and then to proceed to educate with a focus on more important objectives, such as skill learning and activity- forming habits. However, the argument that physical activity is more important than high-level physical fitness does not mean that one should drop physical fitness as the objective of physical education programs. (Weiss, 1964). The amount and types of physical activity that are needed to prevent disease and promote health have to be clearly communicated (NIH, 1995).

One observes a "neo-prevention" movement, a reinvigoration of the traditional illness-prevention and health education movement of the 1950s, that now is known as health promotion and wellness. Schools are again implementing agendas that consist of plans to educate the masses in the ways of health promotion.

Gradual change in the approach to health and fitness can be partially attributed to the coining of the term "wellness" in 1961 by Halbert Dunn. Approaches to the wellness

movement feature a balance of self-responsibility, nutritional awareness, stress awareness and management, physical fitness, and environmental sensitivity (Ardell, 1985). Health promoters believe that information alone is not adequate. People want more specific facts pertaining to issues that will help get them started and enable them to adhere to their wellness regimen until the targeted behavioral changes are made and maintained (Ardell, 1987). Taking responsibility for ones health is the best way to prevent diseases and promote health.

The Effects of the Environment on Physical Fitness and Health

In the early part of the twentieth century, people were subjected to a number of diseases over which there was little if any control. Infectious diseases were the leading causes of death in the United States (Edlin, Golanty and Brown, 1996). Public health and antibiotics were not available. Centers for Disease Control statistics in 1918 show that there was no known cause for influenza and millions of people died (CDC, 1994). The leading causes of death and illnesses in the 1990's are not infectious diseases but unhealthy lifestyles.

The environment and modern lifestyles both have been known to contribute to an early demise. Heart disease is primarily caused by a lifestyle that consists of overeating, tobacco, no exercise, stress and high blood pressure. Homicide and suicide are caused by stress, drugs and alcohol. Cancer causes are both lifestyle and environmentally related. The major causes of premature deaths in the United States are external influences and unhealthy lifestyles (McGuiness and Foege, 1993). Heart disease, cancer and type II
diabetes are chronic diseases that are primarily a result of lifestyle choices. Improvements in health and wellness are possible if there are changes in the behaviors that cause illnesses and a focus on the behaviors that enhance health.

Development and Growth of Health Promotion and Higher Education

The coining of the term wellness in 1961 helped to provide the impetus for the current wellness movement in higher education. Health-promotion programs have been gaining popularity in colleges and universities largely due to the fact that education and health are seen as complimentary and conducive to developing a well-rounded person. The growing acceptance of work-site health-promotion programs on campuses and the availability of a captive audience provide an opportunity for colleges and universities to invest in the health of employees and students (Opatz,1985). Interest in fitness and health in the workplace makes the wellness approach highly compatible with the mission of higher education (Elsenrath, 1984). Many institutions have established or are in the process of implementing health-promotion programs.

The wellness movement in the college environment had a big breakthrough in 1984 when Donald Ardell wrote <u>The History and Future of Wellness</u>. As one of the first summaries of events that helped profile wellness in the United States (Elsenrath, 1984), this book provided the documentation needed to support and justify wellness programming. An examination of the events promoting the wellness movement is valuable when one looks at the factors that shaped the trends for the current health-promotion movement.

Based upon the opinions of experts, organized programs in wellness and health promotion began to appear in the 1970s. According to Ardell (1984) there have been ten factors that have helped to change the climate for and the nature of the wellness movement:

- 1) Breakthrough works
- 2) Cost Crisis
- 3) Consumer Consciousness
- 4) Mind/Body Awareness
- 5) Horrible Good Things
- 6) Industry Responsiveness/Initiatives
- 7) Powerful Individual Voices
- 8) Other Movements
- 9) Research
- 10) Organizations

These factors, which were closely related and supplied the infrastructure for the current wellness trend, will be discussed in more detail in the following sections.

Six Breakthrough Works

A publication written in 1974 by the Canadian Ministry of Health entitled *A New Perspective on the Health of Canadians* was the first breakthrough document that provided epidemiological evidence of the significant effects that lifestyle and environments can have on health and sickness (LaLonde, 1974). Ardell's article states, that lowered medical bills and lowered incidence of personal illness became apparent when individuals assume responsibility for their own health. This was the first time documented information supported a disease-prevention approach to health care. It prompted a large number of medical professionals to evaluate the current system of health treatments.

The second breakthrough was a report released by the Senate Select Committee on Nutrition and Human Needs which addressed the dietary needs of the population of the United States. The link between disease and diet were debated by experts at the request of the Senate Committee. The report called for dramatic changes in food intake patterns. There were suggestions for a decrease in salt, sugar, meat and dairy product consumption. Although the food industry fought these recommendations and caused the Select Committee to lose its funding and power, the "damage" was done and the Select Committee report is still quoted and referenced (Ardell, 1987).

The third breakthrough was the American Hospital Association's statement on the *Hospital's Responsibility for Health Promotion*. This set the stage for the endorsed development of health-promotion and wellness centers with the help of established health-care centers. Material in this document provided the data used to justify changes in a number of hospitals mission statements regarding progressive preventative health care treatment (Ardell, 1987).

A fourth breakthrough is attributed to the 1979 release by the Department of Health Education and Welfare, called *Healthy People*, the United States equivalent of the Canadian document *A New Perspective* Contained in this document was support for environmental changes which could help avoid costly long-term health problems and their respective treatments. This report emphasized the need to prevent disease through social, environmental and behavioral changes. It stressed the need for the American people to take ownership of their lives and to begin to deal with poor housing, poor health education and inadequate preventative health care. There were five goals that were measurable and could be accomplished by 1990. The 1990 goals for the U.S. population were as follows: 35 percent fewer deaths in infants, birth -1 year, due to birth defects and low birth weight; 20 percent fewer deaths in children, ages 1- 14, due to growth and development injuries; 20 percent fewer deaths in the 15-24 age range from motor vehicle accidents and drugs; 25 percent fewer deaths in the 25-64 age range from heart attack, strokes and cancer; 20 percent fewer deaths in persons 65 and over by creating more functional independence and by reducing the incidence of influenza and pneumonia.

A follow-up document published in 1980 by the United States Department of Health and Human Services titled *Promoting Health/Preventing Disease: Objectives for the Nation* gave the public even more information that could be used to attain the goals established in 1979. This document provided an outline of the problem, prevention strategies and supporting data to help achieve the 1979 goals.

A fifth breakthrough was the *Stay Well Plan* designed by Blue Shield of Northern California for a local school district. They were investigating ways to control rising health care costs and pursing ideas on how to motivate employees to avoid excessive use of the health-care system. Using monetary incentives and providing self-care classes in risk reduction, stress management and other related topics, individuals were encouraged to "stay well" for a year and to reap a rebate at the end of the year (Ardell, 1983). Two

hundred and fifty thousand dollars in premiums were saved by the school district, and the results were so outstanding that the program was adapted to a number of major corporations for testing on a trial basis.

The sixth major breakthrough was the collection of speeches and documents edited by John Knowles in 1977 titled, *Doing Better and Feeling Worse: Health in the U.S.* This is an assortment of articles by leading health-care professionals regarding the poor status of health care and what can be done to improve the situation.

Cost Crisis

Costs of health care were spiraling during the 1980s and 1990s. Medical expenses incurred by American commentes cut into the corporate pocketbook and led to a substantial increase in the costs of doing business. There is a need to do something that would "lessen the demand and need for economy-ruining medical care charges and fuel interest in the emerging wellness movement" (Ardell, 1987, p. 8). Today American companies pay approximately 40 percent of the nation's total, health care bill compared to 18 percent in 1965 (Chenoweth, 1994). Approximately one-half of all business expenditures are spent on health care. Yet higher levels of spending on health care in the United States than in most countries has not resulted in higher levels of health such as decreased infant deaths and increased life expectancy (Durch, Bailey and Stoto, 1997).

The health expenditures for the United States, according to the National Center of Health Statistics and Health, are as follows (all figures for 1995):

- National health expenditures as a proportion of gross domestic product: 13.6%.
- National health expenditures: \$ 998.5 billion.
- National health expenditures from private funds: \$ 532.1 billion.
- National health expenditures from public funds: \$ 456.4 billion.
- Percent of national health expenditures in personal health care: 89%.
- Percent of national health expenditures in program administration and net cost of health insurance: 5%

It is very difficult for the United States efficiently and effectively to address the cost of health care without looking at the economic impact of chronic diseases and the cost-effectiveness of prevention. Some examples of the cost savings from prevention include (CDC):

- The cost of saving lives through proven clinical smoking cessation is only \$2,321 for each year of life saved.
- Spending \$1 on diabetes outpatient education saves hospitalization costs of \$2 to \$3.
- For every dollar spent on school-based tobacco, drug and alcohol and sexuality education, \$14 are saved in avoided health care costs.
- Mammography screening can cost as little as \$8,280 to \$9,890 per year of life saved.

A strategy for containing the cost of health care is health promotion, but it is only within the last 10 years that the medical profession has acknowledged the concept of health promotion. The challenge to reducing the cost of health care is to establish health programs that focus on disease prevention. The objectives of these programs should be reasonable, attainable and within the financial resources of the consumer.

Consumer Consciousness

Drastic changes have taken place in the information available to the consumer. The wealth of health news provided by the media and the availability of self-help and selfcare programs have sparked consumer interest in informed decision making. People are tired of depersonalized medical care and are searching for personal fulfillment. The wellness philosophy embraces the concept of "letting the individual explore values and purposes as essential and rewarding elements of personal wellness planning" (Ardell, 1987, p. 9).

The fitness industry and its informal system of communication has proven how influential information about health habits and health education affects exercise and health choices. The public is receptive to information about health behaviors and welcome educational mediums that may help to improve health . Consumers are eager for information on improving health; however, they are sometimes slow to respond to the information presented.

Mind/Body Awareness

The dual foci of wellness programs on both the physical and psychological wellbeing of the individual are vital to self-preservation. The holistic medicine theory defines health in terms of the whole body, not just the diseased or damaged parts (Edlin, Golanty

and Brown, 1996). Spiritual health is an integral part of the wellness model. The mind/body awareness incorporates mental, emotional and spiritual relationships as they pertain to health.

An ongoing study by The Cooper Instuitue and the Depression Research Clinic at the University of Texas Southwestern Medical Center is investigating the effects of exercise on depression. There have been a number of studies that show the effects of exercise on relieving the symptoms of depression, but there has not been a controlled study of exercise as a treatment for depression.

Horrible Good Things

The benefits of the health promotion movement are noticeable. The positive changes in consumer attitudes toward healthy behaviors is strengthened daily. Individuals are no longer fearful of questioning doctors. An interest in decreasing one's chances of chronic illness and the interest in increasing one's chances for a long and disease- free life has encouraged participation in the wellness movement.

Industry Responsiveness/Initiative

Figures show that from 1979-1984 health care insurance benefits payments in United States companies increased 66.4 percent, from approximately \$6.5 billion to \$10.9 billion (Sloan, Gruman and Allegrante, 1987). The 1950 national health expenditures were only 4.4 percent of the gross national product (Sloan, Gruman and Allegrante, 1987). By 1985 10.7 percent of the GNP was related to health expenditures. By 1988 the

F F Su

Pov

.

.

.

the

costs were 11.1 percent and the projections are steadily increasing. It is estimated that by the year 2000 the percentage will be 18 percent (Chenoweth, 1994).

Because health care costs are economically driven, health promotion programs should be integrated with other strategies such as cost-sharing, managed care, controlled hospitalization and customer education to keep overall costs within reasonable bounds (Chenoweth, 1994). However, companies must realize that a number of these costs are caused by external factors that cannot be controlled only by providing health-promotion programs.

Since 1985, nearly 50,000 United States companies have become involved in some form of health-promotion programming. These are the major thrusts toward business support for work- related health promotion (Ardell, 1986):

- A shift toward self-fulfillment as a work value.
- The belief in the illness reduction of exercise programs.
- An apparent connection between health-promotion program content and attitudes of health-promotion participants.
- The aging work force awareness of the benefits of personal health incentives.
- Employee interest in health-promotion the programs.

Powerful Individual Voices

Comments by health care professionals about lifestyle choices and how they affect the quality of life brought the following issues forth.

- The United States Surgeon General's official statement in 1964 linking lung cancer to smoking.
- Joseph Califano's (Secretary of Health and Human Service) statement in the 1979
 Surgeon General's report: "A wealth of scientific research reveals that the key to whether a person will be healthy or sick, live a long life or die prematurely, can be found in simple personal habits.
- General C. Everett Koop in 1989 implementing a national campaign against drunk driving and decreasing the use of athletes and celebrities in alcohol advertisements.
- The Surgeon General's Report on Physical Activity and Health, released July, 1996, commissioned by Donna Shalala (Secretary of Health and Human Service):
 "regular moderate physical activity can substantially reduce the risk of developing or dying from heart disease, diabetes, colon cancer, and high blood pressure."

Other Movements

During the 1990s the profile of the American population will change (USDHHS, 1990). The population will increase by approximately 7 percent. The following changes are predicted to occur:

• The population will continue to age; the percentage of children under the age of 5 will decrease; and the number of people over the age of 85 will increase to approximately 13% of the population.

- The racial and ethnic make-up will shift; Whites will represent a smaller percentage, decreasing from 76 % to 72 %; The Hispanic population will increase from 8 % to approximately 11 %; and blacks will increase from 12 % to 13 %.
- The percentage of white males in the workforce will decrease, while the percentages of minorities and women will increase.
- The percentage of immigrants may increase.

These changes will have a profound effect on health-promotion programs.

The combined efforts of local, state and federal governments led to the development of Healthy People 2000 (USDHHS, 1990). This document is a long-term visionary proposal to enhance and improve the quality of life by reducing and or preventing death and disability due to poor health choices. The broad-based goal of this document is to increase the health and active life of Americans, to reduce wellness differentials between subgroups of Americans and to have access to preventative health care available to all Americans.

Research

The following studies have been instrumental in providing needed evidence regarding the effects of behavior on health:

 The Paffenbarger longitudinal study of longshoreman and Harvard Alumni which investigated the correlation between work and coronary heart disease.
 The Framingham study which examined the risk factors of heart disease.
 The Surgeon General's Report on Smoking and Health. These reports focused mainly on environmental factors rather than medical technology, thereby introducing in a new outlook on wellness as something in the hands of individuals and not solely within the purview of the medical establishment. The Framingham and Paffenbarger study lead to the development of health evaluation instruments and the Surgeon General's report helped solidify the link between smoking and other diseases.

Since education is a major emphasis of the health-promotion movement, it seems reasonable that the college campus should afford access to health-promotion programs. The college campus provides the environment for student and faculty development and information sharing consistent with the philosophies of the university.

Foundations for the student-development philosophy finds its roots in the belief that "the development of the student as a whole self-sustaining functioning unit is the general goal of higher education (Leafgren and Elsenrath, 1986, p. 8)." Wellness professionals in higher education are embarking on a mission to instigate change and omit behaviors that put health at risk. Wellness programs must be optional for the individual if the participant is to be maximally successful (Leafgren and Elsenrath, 1986). Options should be provided by the wellness professionals, and the optimal environment for adherence and participation should be provided if at all possible. Active participation by an individual yields the greatest benefits for all involved. Active involvement promotes change in attitudes, because alert dynamic participation encourages a change in patterns of behavior (Lewin, 1948).

Description of Wellness Program Characteristics

Profiles of wellness programs reveal that the most programs are found in colleges and universities with populations between 10,000 and 20,000 students (Schmottlach, 1992). These programs traditionally serve the entire university community and are are primarily concerned with physical fitness. The types of programs offered strongly reflect the university department with which they are associated (Schmottlach, 1992). Colleges with campus populations greater than 20,000 students have wellness programs but usually are not administered by a single department and therefore reflect the interest of all departments with which they are affiliated.

An institution's definition of wellness and the educational levels of the staff are critical to the success of a program and often influence the activities offered (Schmottlach, 1992). According to Sivik, Butts, Moore and Hyde 1992, available and interested human resources are an important staffing consideration. Since health promotion is a new profession, it is often difficult to find a person with the ability or desire to administer an effective program.

Strategies for Evaluating Wellness Programs

Program evaluation is the process of getting answers to questions about programs. It is important to know the effectiveness of the programs that are in place. There is constant demand for accountability reports, cost benefits analysis and performance indicators. The goal of the evaluation is to "rationally clarify questions about programs and their effects, to collect and analyze data appropriately, and to put the results of the analysis together to develop conclusions about the program(s) in question" (Dignan, 1989, p.5). Since the health-promotion movement is in its infancy, evaluating the impact of the program on the sponsoring organization is advisable. With dwindling and/or fierce competition for resources, there is an obligation to show the effects these programs are having on the people they are designed to service and how they are impacting the parent organization. Individuals and organizations are driven to concentrate their efforts on activities that will make social, intellectual or financial differences (Kernaghan and Giloth, 1988).

Often, accountability for the monies spent on the overall wellness effort lurks in the shadows when monitoring the effects of a subprogram within an organization. Therefore, it is important to specify which part of the program one wants to monitor. Periodic collection of information from participants helps when trying to define what specific changes to monitor. An organization should "carefully match its goal with the means it chooses to achieve that goal before it can begin to collect information on whether or not health promotion is making the desired difference" (Kernaghan and Giloth, 1988, p.5). It is important to recognize the need for specificity and not broadness when evaluating programming. The evaluation should be designed following a predetermined plan, Components of the evaluation should include:

• Identification the target audience.

• Establishment of time lines for program performance indicators.

- Creation of the data collection instrument and procedures.
- Planning of appropriate times for data collection.
- Selection of appropriate data analyses methods.
- Development of a method for presenting data results.
- Development of methods for implementing recommendations resulting from the evaluation.

As universities and colleges become more involved in wellness programs, they will find it necessary to define and establish evaluation procedures. Research tools will need to be developed to help program personnel monitor the effect of the programs on target populations. It will be necessary to make sure that the needs of the participants are being served by the personnel and programs available (Gilmore, Campbell and Becker, 1989).

Summary

The emphasis on education and health dates back to the early Greek empire. The recent growing trend in fitness and health has helped re-establish the belief that health and education are highly compatible. Physical fitness and disease prevention were always a concern of the early health promoters because of the firm belief that exercise and good health are closely related.

A direct correlation between sedentary lifestyles and rising incidences of coronary heart disease becomes apparent with an increased dependence on mechanical power over muscle power. As the need for physical labor decreases, physical fitness levels decrease, and a societal shift to a soft sedentary population occurs. This lifestyle has a direct impact on the curricula of our school systems, which then negatively affect the fitness, and health of our youth.

In 1961, physical fitness within the school system was given a boost of support by the Kennedy administration with the implementation of the President's Council on Physical Fitness. President Kennedy was a strong supporter of education and physical fitness. He believed that the strength of the country is tied to the fitness and health of its youth. He led a crusade to improve the curricula, which then would help to improve the overall fitness of the American population and its youth. The content of fitness programs was debated as to whether to emphasize high levels of fitness or to emphasize the development of skills that would promote physical activity. A move was made to promote activity skills that could lead to moderate fitness levels while, at the same time, encouraging the development of life-long leisure activities that lead to healthy lifestyles.

Medical and non-medical professionals established that fitness is dependant on inherited qualities as well as practiced behaviors. There was belief among these groups that most people are able to control behaviors that have adverse effects on their health but are unable to find the appropriate discipline to initiate and continue activities that support health and fitness. Health education requires an effective method of encouraging individual participation in the monitoring of health-promotion practice.

Research activities provided the catalyst which thrust the wellness movement to the forefront. Consumers wanted more information with which to make wisehealth decisions and needed documentation that supported the benefits of preventative health measures. Additionally, the placement of the responsibility for health behaviors on the

individual allowed people to become more involved in improving their environment.

Recent literature on wellness has focused on providing services to the educational community, specifically the faculty, staff and students of colleges and universities. The wellness focus on college campuses has enhanced the efforts of student health centers, residence life programs, academic departments, student affairs offices, intramural programs and a number of other interested parties. The results of these efforts all too frequently have led to a duplication of services, poorly organized programs, poor participation or a lack of cooperation among the departments.

As involvement in wellness programs increases, evaluation of these programs becomes critical to ensure that desired goals are being met. Well-designed evaluation strategies are essential in helping to determine the priorities of the program and the needs of the target group. Health professionals will find it necessary to "consider the value of determining in a structured fashion the prioritized needs of a target group, so that effective health educational and promotional efforts can be continued, adjusted, or newly-developed when appropriate" (Gilmore, Campbell and Becker p. 9, 1989).

CHAPTER III. METHODS

This investigation was undertaken to identify some of the critical factors that might affect health-promotion programs in the higher-education setting. Specifically, the study was designed to determine if relationships exist between selected program characteristics, program departmental affiliation, program administrator background, type of target audience and program administrator satisfaction.

Data Collection

Big Ten universities were contacted for this study. A questionnaire of 25 prepared questions using closed, fixed responses was mailed to ten of the eleven Big Ten universities' primary health-promotion administrators, as listed in the 1993-1994 National Wellness Information Resource Center (NWIRC) directory. No survey was mailed to the University of Michigan (UM) because the NWIRC directory did not list a primary healthpromotion administrator for UM. Follow-up telephone contact with UM indicated the presence of a health-promotion center, but that this center was not involved in on-campus, health-promotion programming.

Primary health-promotion administrators were contacted personally by mail if their names were known. Otherwise, postal materials were addressed to the "Health-Promotion Director" of the school. Ten of the eleven Big Ten institutions were contacted in this manner. Each was provided with a cover letter explaining the purpose of the study, a selfadministered questionnaire and a return envelope that was self-addressed and stamped. The University of Michigan did not receive these materials because currently it does not

have a health-promotion program as described in this study. Two schools do have such programs but did not did not respond. A total of eight completed surveys were returned.

Survey Instrument

The questionnaire, which was constructed for this study, is comprised of 25 fixedchoice items designed to identify various program and administrator characteristics (Appendix A). The instrument addresses the following four major areas of interest:

- Program characteristics and departmental affiliation.
- Program administrator professional and personal background.
- Program target population.
- Program administrator job satisfaction.

The questionnaire was filed tested at a National Intramural Recreation Sports Association gathering of health and wellness professionals. This field testing was done to ensure that questions were in logical order, clear in wording and presentation, and likely to yield useful data. The survey was administered in Spring, 1995.

The target audience was specified to be the Big Ten universities (Indiana University, Michigan State University, Northwestern University, The Ohio State University, Penn State University, Purdue University, University of Illinois, University of Iowa, University of Michigan, University of Minnesota, University of Wisconsin). The Big Ten schools were chosen because of the ease of data collection, because each Big Ten university offers at least one academic degree program requiring a wellness course, and geographic proximity. It was feared that university populations in different geographic regions have lifestyles with different health and wellness characteristics. If these differences show up in either the primary health-promotion administrators, or the programs' target populations, then this 'lifestyle effect' could lead to incomparability within the sample and/or bias the results of the study. The Big Ten student populations were expected to have similar characteristics.

Data Analysis

Due to the necessarily small sample size, the data were analyzed using descriptive methods. Frequencies and percentages are presented in tabular and graphical format.

CHAPTER IV. RESULTS AND ANALYSIS OF DATA

The survey was divided into four areas of interest: program characteristics and department affiliation, program administrator professional and personal background, program target population, and program administrator job satisfaction. Graphical and tabular methods are used to summarize and analyze the results of the survey in each of the areas of interest. The results then are analyzed to test the hypotheses developed in Chapter I.

Program Characteristics and Department Affiliations

Five of the programs are located in health centers, and one each in the Athletic/Recreation Department, the Department of Physical Education, and the Department of Nursing. Four respondents believed that department affiliation has very little influence on program content, three respondents indicated program location has a lot of influence on program content and one responded that the program is somewhat influenced by location.

Nutrition is the only activity offered by all respondents. The data indicate that nutrition is an activity that is popular with the participants, and both individual and group counseling is available 62.5 percent of the time.

The availability of the number of activities offered by programs located in health centers was greater than the availabity of the number of activities offered by programs located in areas other than health centers (Table 1).

Type of Activity	In Health Centers	Not in Health Centers
Fitness Evaluation	3	2
Lifestyle Inventory	2	1
Cholesterol Screening	2	1
Weight Control	4	3
Smoking Cessation	4	1
Health Fairs	4	2
Blood Pressure Screening	3	2
Ergonomics	0	1
Substance Abuse Counseling	4	0
Physical Fitness	2	3
Nutrition	5	3
Stress Management	5	0
Risk Appraisal	2	2

Table 1. Number of Programs Offering Various Wellness Activities, by Program Location.

Popularity of Programs Offered

Health promotion administrators rated program popularity on a scale from one to five, with one being the most popular and five the least popular. The program that was offered by all universities and was reported to have above average popularity is nutrition. Weight control programs are offered in seven universities and indicate that they also have above average popularity. Physical fitness, stress management and other programs reported in **Table 2** recorded the second most popular scores of activities reported. Health risk appraisals, chlosterol screening, blood pressure screening, fitness assessment and lifestyle inventory recorded average attractiveness to participants. Substance abuse and health fairs received mixed ratings in the data reported and the respondants rated smoking cessation the least popular activity offered.

	UNIVERSITY								
WELLNESS ACTIVITY	1	2	3	4	5	6	7	8	
Physical Fitness	1	1	1	*	2	*	2	*	
Nutrition	3	1	2	1	1	1	2	2	
Stress Management	•	*	*	2	1	1	*	2	
Risk Appraisal	*	*	*	2	*	3	*	*	
Blood Pressure	2	*	*	2	3	*	3	3	
Health Fairs	2	*	1	*	3	4	3	2	
Smoking Cessation	•	*	*	4	5	4	5	5	
Weight	3	1	*	2	2	1	3	3	
Chlosterol Screening	2	*	•	*	3	*	*	3	
Lifestyle Inventory	*	*	*	*	3	•	3	•	
Fitness	2	1	*	*	3	*	*	*	
Substance Abuse	*	*	2	3	5	5	*	*	
Other	*	*	*	1	*	*	•	1	

Table 2. Popularity of Wellness Activities by University.

1-Extremely popular, 2-Above average, 3-Average, 4-Below average, 5-Unpopular, *-Missing.

Fees Incurred by Participants Using Programs

No programs reported a flat fee that allowed the participants to use all of the activities. One program indicated they charge for all programs on a program-by- program basis. Another program indicated the staff pays a user fee for all services and the students pay for weight control classes but incur no other costs because student fees fund the health center. Five programs indicated that their participants incurred no costs to use the activities while another program indicated they charge fees using a per semester hour charge (**Table 3**).

	UNIVERSITY									
TYPE OF FEE	1	2	3	4	5	6	7	8		
Flat Fee, All Programs	No	No	No	No	No	No	No	No		
Program Fee, Al Programs	Yes	No								
Program Fee, Some Programs	No	No	No	No	No	No	No	Yes		
No Fees	No	No	Yes	Yes	Yes	Yes	Yes	No		
Other	No	Yes	No	No	No	No	No	No		

Table 3. Program Fees by Type of Fee and University.

Background of the Primary Health-Care Administrator

The survey revealed that six of the eight programs were directed by women, with an average of 7.4 years experience in the primary administrative position (**Figure 1**). Years of previous experience in the health-promotion profession averaged 5.5.



Figure 1. Number and Average Years in Position of Primary Health Care Administrator, by Gender.

Age of the Primary Health-Promotion Administrator

The data reveal that the age distribution was as follows: one each in the 51-55, 46-50 and 41-45 age categories; two in the 36-40 age category, and three in the 31-35 age category (**Figure 2**). The number of individuals who were 40 years of age or younger, yet in the position of director is noteworthy. It would seem to be unusual to be appointed to any position of "director" in a university with only 5.5 years previous experience. The appointment to these positions at these ages might be attributed to the fact that the profession of health-promotion is so new that few persons with long-term experience in the field are available. There also may be more mobility in the area of health-promotion for young professionals than there is in other health related areas.



Figure 2. Age Distribution for Primary Health-Promotion Administrators

The low proportion of men might be attributed to the newness of the profession as a non-traditional, health-related area if men are still focused on more traditional areas; more rapid promotions for men to other administrative jobs; or, more likely, to an artifact of the small sample size.

Educational Attainment of Primary Health-Promotion Administrator

The highest educational level of the directors is as follows: three have obtained a doctorate degree or master's degree and one has a bachelor's degree (Figure 3). The individual who holds a bachelor's degree indicated a background in health education and public health. The four respondents who hold master's degrees indicated educational backgrounds in exercise physiology, physical education and teaching, psychology, and sex education and wellness. Two of the three administrators, who obtained Ph.D.s, indicated backgrounds in health education; the third has a background in nursing.



Figure 3. Educational Attainment of Primary Health-Care Administrator.

Professional Development

Journals, seminars, textbooks and continuing education activities are the more prevalent methods by which the health promotion administrators stay abreast of current events in the health and fitness profession. Participation in research projects is used by half of the respondents followed by teaching used by three health promotion administrators (Table 4).

	UNIVERSITY								
Type of Activity	1	2	3	4	5	6	7	8	
Journals	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Seminars	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
Textbooks	Yes	Yes	Yes	Yes	Yes	No	No	Yes	
Continuing Ed.	yes	No	Yes	No	No	Yes	Yes	Yes	
Research	No	Yes	yes	No	Yes	No	Yes	No	
Teaching	No	вo	Yes	No	Yes	No	No	Yes	
Other	No	No	No	No	No	No	No	No	

Table 4. Professional Development Activities, by Type of Activity and University.

Meetings Attended 1991-1995

The number of meetings attended by the health promotion administrators varies among the six who responded to the question. The number of meetings attended ranged from the high of twenty-five to the low of five with fifteen as the average number of seminars attended during a four year period (**Table 5**).

		UNIVERSITY								
	1	2	3	4	5	6	7	8		
Number of Seminars	10	*	25	13	24	5	*	13		

Table 5. Number of Seminars Attended, 1991-1995, by University.

*-Missing Data

Professional Memberships and Certifications

Associations and membership in professional organizations were very diverse. There appears to be no primary membership of interest. Associations representing public health and college health was the only memberships shared by administrators (**Table 6**). Their were two respondent who indicated they were certified one belongs to American College of Sports Medicine, but the type of certification attained was not defined and one was a Certified Health Education Specialist.

 Table 6. Professional Memberships and Certifications Held by the Primary Health-Promotion Administrator, by University.

UNIVERSITY										
1	2	3	4	5	6	7	8			
ACSM AFB AAA IDEA AEA	IDEA	SOPHE APHA CHES	ACHA	ACHA MPHA ACPM APHA	APA ACA	ANA	AASE CT			

ACSM: American College of Sports Medicine, AFB: Association for Fitness in Business, AAA: American Aerobics Association, IAR: Institute for Aerobic Research, IDEA: International Dance-Exercise Association, AEA: Aquatic Exercise Association, AAHPERD: American Association of Health, Physical Education, Recreation and Dance, NIRSA: National Intramural Recreational Sports Association, SOPHE: Society of Professional Health Education, CHES: Certified Health Education Specialist, APHA: American Public Health Association, ACHA: American College Health Association, APA: American Psychological Association, ACA: American Counseling Association, MPHA: Minnesota Public Health Association, ANA: American Nursing Association, AASECT: American Association of Sex Education Counseling Therapists

Health Promotion Courses Taught

Three respondents were responsible for teaching courses that are affiliated with a

degree program. Respondent number three spent 20% of their time with teaching

activities, respondent number four and five spent 5% of their time teaching and respondents numbers six, seven and eight did not indicate they taught any classes affiliated with a degree program but spent 10% of their time teaching (**Table 7**).

UNIVERSITY	COURSES TAUGHT
1	None
2	Six, Unspecified
3	Personal Health, Research and
	Program Models
4	Health Care Administration
	Advisory Course
5	Peer Education Curriculum
6	None
7	None
8	None

 Table 7. Courses Taught by Primary Health-Promotion Administrator, 1991-1995, by University.

Academic Interest of the Primary Health-Promotion Administrator

The primary administrators have varied academic interests (Figure 4). Three individuals have interests in health education; the primary interests of the other five respondents are physical education, exercise physiology, psychology, nursing and sex education/wellness. One of the respondents interested in health education also listed pedagogy as an area of academic interest.



Figure 4. Academic Interests of the Primary Health-Care Administrator

Composition of Target Population by Program

Four of the eight programs target only students, the other programs target faculty 12 % of scheduled activities and staff 4 %, students 79% and retirees 1%, alumni 1% and community 1% (Figure 5). As only one program targets employees with 50% or more of its scheduled activities, these programs generally appear not to be focused on making the workplace a healthier and more productive environment.



Figure 5. Composition of Target Population by Program

Job Satisfaction

The fourth part of the survey addressed the issue of job satisfaction of the primary administrator. The issue was evaluated by examining the activities undertaken by the administrators and the time allocated to these activities in comparison to the administrators' areas of interest, job flexibility, and the possibility of program expansion. The data indicate that administrative activities account for 53% of administrators' time, programming 14%, program evaluation 10%, counseling 9%, research 8%, and teaching 7% (Figure 6). It is noteworthy that the primary administrator spends very little time with research and teaching. For health promotion to become an academic discipline and be accepted as an areathat needs and merits the support of the academic community, health-promotion administrators might find it advisable to become more oriented toward research and teaching.



Figure 6. Allocation of Primary Health-Promotion Administrators' Time by Activity.

The small fraction of the health- promotion administrators' time spent on teaching, on average, indicates that most of these administrators do not put in even the time equivalent of teaching a three-semester-hour course (about 0.15 full-time equivalents, or 15% of the typical university faculty member's time). Discussions with faculty indicate that most university chairperson or other unit administrators spend 20 to 25% of their time in research, teaching or other academic activities.

It is evident that there are important differences among programs in measures of job satisfaction. Three of the administrators spend less than 20% of their time on activities. they find enjoyable; in contrast, three spend more than 75% of their time on activities they find enjoyable.

	UNIVERSITY							
JOB ACTIVITY	1	2	3	4	5	6	7	8
Programming	Y	*	Y	*	*	Y	*	Y
Counseling	Y	*	*	*	*	*	*	*
Program Evaluation	Y	*	Y	Y	N	Y	Y	Y
Research	+	Y	*	*	+	*	*	*
Administrative Activities	Y	Y	Y	Y	*	*	Y	*
Teaching	Y	Y	*	Y	*	*	*	*
Other	+	*	•	*	*	*	Y٩	*

Table 8. Job Activities that Primary Health-Care Administrators Find Enjoyable, by University.

Y=yes, N=no, *=missing data

* Respondant indicated that supervising is an enjoyable activity.

Need for Program Expansion
All respondents to some extent indicated the need for further development of health promotion programs (**Table 9**). Three programs identified the need to expand all programs at their universities.

		UNIVERSITY						
	1	2	3	4	5	6	7	8
All Programs	No	Yes	Yes	Yes	No	No	No	No
Some Programs	Yes	No	No	Yes	Yes	Yes	Yes	Yes

 Table 9. Program Expansion Needs, by University.

Opportunity for Program Expansion

The three programs that needed expansion in all areas reported that they had a below average opportunity for further development (**Table 10**). Four other programs indicated they had an above average chance of expansion. Program number six responded that they had an average chance for possible expansion.

UNIVERSITY							
1	2	3	4	5	6	7	8
Above Average	Below Average	Below Average	Below Average	Above Average	Average	Above Average	Above Average

 Table 10. Expansion Possibilities, by University.

Four respondents (50%) indicated that program location had very little influence on program content, three (37%) indicated location influenced content significantly and one (12.5%) indicated location somewhat influenced content (Figure 7). The respondents who believed location had little influence on program content are located as follows: one in athletics/recreation, two in health centers and one in the college of nursing. Of those who believed location has a significant influence on content, one is located in physical education and two in health centers. The individual who believes location influences programs somewhat, is located in a health center.



Figure 7. Degree of perceived influence of program location on type of program.

Inferences Pertaining to the Proposed Hypotheses

Hypothesis 1 States-- There is a relationship between program characteristics and the satisfaction level of the primary health promoter. This hypothesis is rejected. Three out of the eight administrators rate teaching as the job activity enjoyed most; but, according to the time allocated to these activities, they spend less than 10% of their time doing this activity. Four individuals find programming most enjoyable and spend on average 21% of their time involved in this area. Program evaluation is enjoyed most by only one administrator, but at least six people spend 12.5% of their time evaluating programs. Counseling is enjoyed most by one respondent, who spends only 10% of his/her time in this area; while four others spend an average of 15% of their time counseling.

Hypothesis 2 States-- There is a relationship between department affiliation and program characteristics. This hypotheses appears to be supported by the data and thus is accepted tentatively. When measuring the effects of location on program content, the most noteworthy differences appear between programs located in health centers and the program located in a physical education department. It is interesting to note that the program located in the physical education academic unit, offers the least number of activities of the thirteen listed in the survey. There are only five activities offered in the program located in the Physical Education department.

Of the respondents who indicated "other" that their program was located elsewhere, one is in Athletics/Recreation and the other in nursing. Both of the respondents offer eight of thirteen activities and at least one offers smoking cessation and

lifestyle inventory. Only the five programs located in health centers offer stress management.

Hypothesis 3 States-- There is a relationship between target audience and program characteristics this hypotheses is accepted. The respondents indicated that there were strong emphasis on programming activities that target primarily students. Four programs indicated that they were focused 100% on student programming (**Table 11**). Two other programs direct their programming 90% toward student interest while one targets students with 50% of their activities, faculty/staff 20%, alumni 25% and retirees 5%. The was one program that targets only faculty/staff.

	UNIVERSITY								
TARGET GROUP	1	2	3	4	5	6	7	8	Mean
Students	50%	90%	100%	100%	100%	100%	0%	90%	79%
Faculty	10%	0%	0%	0%	0%	0%	80%	5%	12%
Staff	10%	0%	0%	0%	0%	0%	20%	5%	4%
Community	5%	5%	0%	0%	0%	0%	0%	0%	1%
Retirees	0%	5%	0%	0%	0%	0%	0%	0%	1%
Alumni	25%	0%	0%	0%	0%	0%	0%	0%	3%

 Table 11. Proportion of Programming Aimed at Target Groups, by University, and Sample Mean.

Overall programs focused less than 4% on community, retirees and alumni. The one program that did indicate a 5% target toward retirees did not indicate if they offer a lot of activities towards an older population. There was no indication of what, if any are

differences between the activities offered that cater only to students and activities that also include non-students.

Hypothesis 4 states--There is a relationship between the educational background of the primary health promoter and program characteristics. This hypothesis is rejected.

The respondents indicated there were primarily six areas of academic interest. There were three who listed health education and one each in exercise physiology, physical education, public health, nursing and psychology. Pedagogy and sex education were also listed in the other category as areas of academic interest and specality by two respondents.

The three respondents, who indicated that health education is their primary area of educational interest, all administered programs from health centers. All of these programs offer nutrition, stress management, smoking cessation, weight control and substance abuse (**Table 12**). Two programs offer physical fitness and exercise, health risk appraisal, blood pressure screening, health fairs, lifestyle inventory and fitness testing. One program indicated sex education classes and cholesterol screening.

The differences, if any, with the exception of psychology, between program components based on the academic interest of the administrator in areas other than health education appear not to be influenced by the educational background of the administrator (Table 13). Granted there are variations between activities offered but, those distinctions can not logically be attributed to educational background differences.

 Table 12. Components of Programs Whose Administrators' Area of Academic Interest is Health Education.

PROGRAM 1	PROGRAM 2	PROGRAM 3
PROGRAM 1 Nutrition Stress Management Smoking Cessation Weight Control Substance Abuse Physical Fitness and Exercise Health Risk Appraisal Blood Pressure Screening Health Fairs Lifestyle Inventory Fitness Testing	PROGRAM 2 Nutrition Stress Management Smoking Cessation Weight Control Substance Abuse Physical Fitness and Exercise Health Risk Appraisal Blood Pressure Screening Health Fairs Lifestyle Inventory Fitness Testing	PROGRAM 3 Nutrition Stress Management Smoking Cessation Weight Control Substance Abuse
Sex Promotion Cholesterol Screening		

.

 Table 13. Program Components by Administrator's Area of Academic Interest, Areas other than Health Education.

AREA OF INTEREST	PROGRAM COMPONENTS
Public Health	Physical Fitness and Exercise, Nutrition, Stress Management, Blood Pressure, Screening, Health Fairs, Weight Control, Cholesterol Screening, Lifestyle Inventory, Fitness Testing, Substance Abuse
Exercise Physiology	Physical Fitness and Exercise, Nutrition, Health Risk Appraisal, Blood Pressure Screening, Health Fairs, Weight Control, Cholesterol Screening, Fitness Testing
Psychology	Nutrition, Stress Management
Physical Education	Physical Fitness & Exercise, Nutrition, Ergonomics, Smoking Cessation, Weight Control, Fitness Testing
Nursing	Physical Fitness and Exercise, Nutrition, Health Risk Appraisal, Blood Pressure Screening, Health Fairs, Smoking Cessation, Weight Control, Lifestyle Inventory

CHAPTER V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

In this study, the roles of primary health-promotion administrators on the campuses of Big Ten universities have been studied.

The purpose of the study was to gather information and contribute to the development of health-promotion programs on university campuses. The general objective of the study was to determine how different program locations, target populations and administrator background affect the characteristics of the health-promotion programs surveyed. One of the problems encountered was the small amount of information available about the characteristics and administration of Big Ten University health-promotion programs.

The hypothesis that were tested are:

1) There is a relationship between program characteristics and the satisfaction level of the primary health promoter.

2) There is a relationship between department affiliation and program characteristics.

3) There is a relationship between target audience and program characteristics.

4) There is a relationship between the educational background of the primary health promoter and program characteristics.

Review of Literature

A review of literature reveals that the growing trend of fitness and health in universities has helped to renew an interest in the compatibility of health and education. There is overwhelming evidence of a direct relationship between sedentary lifestyle and coronary heart disease. An increased dependence on mechanical power versus muscle power promotes a more sedentary lifestyle. In turn, sedentary lifestyle choices influenced our school curriculum and, consequently how we approached fitness and health.

The appropriate contents for fitness programs have been hotly debated by medical and non-medical professionals. The conclusion reached is that fitness is dependent on inherited factors as well as behaviors.

Research has provided the evidence that the health and fitness community needed to support the importance of preventative health practices. When consumers become aware of how the environment influenced their health, they became more involved in improving their environment. The university is beginning to focus attention on providing information concerning preventative health practices to their communities to help combat rising health care costs.

Design of the Study

The study was administered through a 25- question survey that addresses the following:

1) Program characteristics and department affiliation.

2) Professional background of the primary health promoter and program characteristics.

3) Relationship between program characteristics and target audience.

4) Relationship between program characteristics and satisfaction level of the primary health promoter.

The examination of the data consists of graphical, comparative and descriptive analyses as necessary.

Limitations

The limitations that may influence the interpretation of the data reported include:

- All data are self-reported.
- Reliance on the accuracy of the data as reported.
- There may be a difference between the information reported and the programs that are actually delivered.
- It is impossible to determine who actually answered the survey.
- Sample size.

Findings and Conclusions

Hypothesis 1 states: There is a relationship between program characteristics and the satisfaction level of the primary health promoter. The hypotheses is rejected. The collected evidence fails to support the hypothesis. For example, the proportion of job responsibilities which the primary health promoter enjoys ranges from 100% to 5%. The proportion of administration in all job responsibilities ranges from 25% to 85%. A pairwise, two-tailed t-test was used to test the correlation between the percent of job responsibilities enjoyed and the percent of administration in all job responsibilities. The estimated correlation coefficient is $\rho=0.088$, t=0.45, and Prob(x>|t|)=0.78. In other words, when the true correlation is 0, there is a 78% chance of drawing a random value of t that exceeds (in absolute value) 0.78. Therefore, the t-test fails to reject the hypothesis that there is a zero correlation between the percent of job responsibilities enjoyed and percent of job resposibilities that are administrative. Comparison of job satisfaction with other survey data also fails to exhibit meaningful relationships. Consequently, the hypothesis that there is a relationship between program characteristics and the satisfaction level of the primary health promoter is rejected.

Hypothesis 2 states: There is a relationship between department affiliation and program characteristics. This hypothesis is supported by the data and thus is accepted. In particular, when measuring the effects of department affiliation of program content, substance abuse counseling and stress management, and ergonomic programs depend on program location. These contents are more likely to be found in programs located in health centers. Ten other content categories appear to be independent of program location. The hypothesis was accepted because there is a difference between the programs located in health centers and programs not located in health centers.

Questions remain: Are the programs, which offer stress management, substance abuse counseling and ergonomics, products of their environment? Is the location really the underlying causal factor that influences program content?

<u>Hypothesis 3 states</u>: There is a relationship between target audience and program characteristics. This hypothesis is accepted.

The data indicate that seven of the eight programs target primarily students and the activities offered are similar in content to the programs that target faculty/staff. Three of the eight programs offer some activities for faculty and staff, and some of their programming reflects their interests. One of the eight programs focuses 100% of their time and programming on faculty /staff and focused their programming on group activities versus individual activities. The community and retirees are targeted by two programs. The alumni and other interests groups were targeted by one program and at least 25% of their programming were geared toward servicing this group. The programs that target students primarily focus on physical fitness and exercise, health fairs and weight control. The faculty and staff programs both target the areas of physical fitness and exercise, smoking cessation and weight control. The community and retirees are targeted by programs that offer physical fitness and exercise and nutrition. It was interesting to note that all groups disliked smoking cessation programs.

The differences in activities offered indicates that stress management and substance abuse counseling depend on student target populations. The two programs targeting students 50% or less do not offer stress management or substance abuse counseling. Of the other six programs, 5 (83%) offer stress management programming, and 4 (67%) offer substance abuse counseling. Based on the reported data these two content areas represent a difference between the program characteristics that is related to target populations. Therefore the hypothesis is accepted. The *caveat* is that eleven other program content areas appear to be unrelated to target populations.

Hypothesis 4 states--There is a relationship between the background of the primary health-promoter and program characteristics. The data indicated that there is no important difference between program characteristics and areas of academic interests. The comparison of programs indicates the biggest difference among activities offered is found in between the program that has an administrator who had an academic background in psychology and the other programs. That program had the least number of activities to offer. The programs administered by respondents who had an academic interest in health education, public health, exercise physiology, physical education and nursing all include a number of components of the health promotion model. The components of the healthpromotion/wellness model include: Health education counseling, medical-physical screening, stress management, nutrition, substance abuse, physical fitness and exercise, smoking cessation and weight management.

Implications for Further Research

The data revealed that there is a considerable amount of information that could be collected regarding this subject. Further studies could be conducted follows:

- The study should be expanded to include schools other than Big Ten schools that have student enrollment of 20,000 or greater.
- The characteristics of health promotion should be studied across geographic regions.
- The educational background and previous experience in health promotion should be studied

across geographic regions.

- The role that the health promotion program plays on campus should be studied in relationship to the size of the student enrollment.
- Schools that have a reputation for having effective health promotion programs should be surveyed to determine what makes them successful.
- An investigation should be conducted to determine what areas should be emphasized in the education of future health promotion administrators.
- The role of the health promotion administrator in making sure the program reaches and changes the unhealthy lifestyles of individuals should be studied.
- This study has outlined building blocks for continued promotion and design of wellness programs in higher education, and examined the realtionship between varioius factors that impact the effectiveness and role of the wellness programming. A follow-up study is recommended to update the 1995 data used in this study, to determine how universities are responding over time to the challenge of increasing physical fitness, health and wellness in their clientele. Additional issues that could be included in a follow-up study could include need for and provision of child care, multiculturalism and health, changing demographics in target populations, increases in student debt and stress, etc. As we move into the next millennium, it is especially important to document and compare how Big Ten schools are responding to the current transitions in the health promotion field. We must recognize that approximately 70% of disease in the United States are

attributed to unhealthy lifestyles. This awareness should be the catalyst for improving our lifestyle choices. As demonstrated in this study, the key to promoting healthy lifestyles is found in health promotion and wellness education. This study has outlined building blocks for continued promotion and design of wellness programs in higher education, and examined the relationship between various factors that impact the effectiveness and role of the wellness programming. On the basis of the analysis, there is the opportunity for clear guidelines and structural organization formats to be developed and educational programs to be designed to increase the effectiveness of health promotion programs on campus.

7

í L

- Ainsworth, T. H. (1984). The Health Promotion Concept. In M. P. ODonnell & T. H. Ainsworth (Eds.), *Health Promotion in the Workplace*. New York: John Wiley & Sons.
- American Association for Higher Education, American College Personnel Association, &
 National Association of Student Personnel Administrators (1998). Powerful
 Partnerships: A Shared Responsibility for Learning [available online:
 http://www.aahe.org/assessment/joint.htm viewed July 13, 1998].
- American College Health Association. (1990). *Healthy Campus 2000: Making it Happen*. Baltimore, MD: American College Health Association.
- American Medical Association & The American Association for Health Physical Education and Recreation. (1964). Exercise and Fitness. Journal of Health, Physical Education, and Recreation, 35(5), 43-44, 82.
- Ardell, D. B., & Tager, M. (1982). Planning for Wellness: A Guidebook for Achieving Optimal Health. Dubuque, IA: Kendall/Hunt.
- Ardell, D. B. (1985). The History and Future of Wellness. Dubuque, IA: Kendall/Hunt.
- Bibeau, D. L., & Smith, D. W. (1980). Issues in Planning Health Promotion Programs in Worksites. Wellness Perspectives: Research Theory & Practice, 6(3), 3-18.
- Biddle, B. J. (1979). Role Theory: Expectations, Identities and Behaviors. New York: Academic Press.
- Bryant, C. X. (1997). Fitness Management(October).

Chenoweth, D. (1994). Positioning Health Promotion to Make an Economic Impact. In J.
P. Opatz (Ed.), *Economic Impact of Worksite Health Promotion* (pp. 33-49).
Champaign, IL: Human Kinetics Publishers.

Centers for Disease Control. About Chronic Disease: Definition, Overall Burden, and Cost Effectiveness of Prevention. Available online:

http://web.health.gov/healthypeople/2010fctsht.htm viewed Jan. 28, 1999.

- Centers for Disease Control. The Link between Physical Activity and Morbidity and Mortality. Available online: <u>http://www.cdc.gov/nccdphp/sgr/mm.htm</u> viewed Jan. 21, 1999.
- Centers for Disease Control (1999). Preventing Cardiovascular Disease: Addressing the Nation's Leading Killer. Available online:

http://www.cdc.gov/nccdphp/cvd/cvdaag.htm viewed Jan. 28, 1999

Cormack, M. L. (1962). Re-Creation Unlimited. Journal of Health, Physical Education and Recreation, 33(4), 22.

Cunningham, R. M. J. (1982). Wellness at Work. Chicago: Blue Cross Associaton.

- Dignan, M. B. (1989). Measurment and Evaluation of Health Education. Springfield, IL: Charles C. Thomas.
- Downie, R. S., Fyfe, C., & Tannahill, A. (1990). *Health Promotion Models and Values*. New York: Oxford University Press.
- Doxiads, S. (1987). Ethical Dilemmas in Health Promotion. New York: John Wiley and Sons.
- Dunn, H. (1961). High Wellness Levels. Arlington, VA: R. W. Betty Co.

- Durch, J. S., Bailey, L. A., & Stoto, M. A. (1997). Improving Health in the Community, A Role for Performance Monitoring. Washington, D.C.: National Academy Press.
- Eddy, J. M., Bibeau, D. L., Glover, E. D., Hunt, B. P., & Westerfield, R. C. (1989).
 Wellness Perspectives Part I: History, Philosophy and Emerging Trends. Wellness
 Perspectives: Research, Theory and Practice, 6(2), 3-19.
- Fletcher, M., & Anderson, P. (1986,). Implementation of Fitness/Wellness Programs for the University Community (Summary). Gowth and Development of Recreational Sports. Paper presented at the Thirty-Seventh Annual National Intramural-Recreational Sports Association Conference.
- Gall, S. L. (1991). The Fit Miss Less Work. The Physician and Sports Medicine, 19(4), 28.
- Gilmore, G. D., Campbell, M. D., & Baker, B. L. (1989). Needs Assessment Strategies for Health Education and Health Promotion. Indainapolis, IN: Benchmark Press.
- Governor's Council on Physical Fitness, Health and Sports; Michigan Office of Services to the Aging; and Michigan Department of Community Health (1997). *The Importance of Physical Activity for the Elderly* (Position Paper). Lansing, MI.
- Hamrick, M., Frankle, R., & Crase, D. (1990). Fitness and Wellness: A New Dimension of General Education in Higher Education. Wellness Perspectives: Research, Theory and Practice, 6(3), 66-73.
- Hand, G. H. (1963). Looking to the Future. Journal of Health, Physical Education and Recreation, 34(1), 27-29, 59.

- Hettler, B. (1982). Wellness Promotion and Risk Reduction on a University Campus. In
 M. M. Faber & A. M. Reinhardt (Eds.), *Promoting Health Risk Reduction* (pp. 207-223). New York: McMillan Publishing Co.
- Hettler, W. (1986). The Role of Campus Recreation Programs in Institutions of Higher
 Education. In F. Leafgren (Ed.), Developing Campus Recreation and Wellness
 Programs (pp. 19-32). San Francisco: Jossey-Bass Inc.
- Hoeger, W. W. K. (1987). The Complete Guide for the Development and Implementation of Health Promotion Programs. Englewood, CO: Morton Publishing Company.
- Hollander, R. B., & Hale, J. F. (1987). Worksite Health Promotion Programs: Ethical Issues. American Journal of Health Promotion, 2(2), 37-43.
- Kennedy, J. F. (1961). A Presidential Message to the Schools on the Physical Fitness of Youth. Journal of Helath, Physical Education and Recreation, 32(5), 29-31.
- Kernaghan, S. G., & Giloth, B. E. (1988). Tracking the Impact of Health Promotion on Organizations: A Key to Program Survival. American Hospital Publishing, Inc.
- Lalond, M. (1974). A New Perspective on the Health of Canadians. Ottawa: Government of Canada.
- Lampman, R. M., & Savage, P. J. (1988). Exercise and Aging: A Review of Benefits and a Plan for Action. In J. R. Sowers & I. V. Felicather (Eds.), *The Endocrinology of* Aging (pp. 307-335). New York: Raven Press.
- Leafgren, F., & Elsenrath, D. E. (1986). The Role of Campus Recreation Programs in Institutions of Higher Eductation. In F. Leafgren (Ed.), *Developing Campus Recreation and Wellness Programs* (pp. 3-18). San Francisco: Jossey-Bass.

Manley, A. F. (1996). Preface. In Manley, A. F., *Physical Activity and Health: A Report* of the Surgeon General. Available online:

http://www.cdc.gvo/nccdphp/sgr/preface.htm viewed March 30, 1999.

Manley, A. F. (1996). Summary. In Manley, A. F., Physical Activity and Health: A Report of the Surgeon General. Available online:

http://www.cdc.gov/nccdphp/sgr/summ1.htm viewed March 30, 1999.

- McGuiness, J. M., & Foege, W. H. (1993). Actual Causes of Death in the United States. Journal of the American Medical Association, 270(18), 2207-2212.
- Miller, D., & Earl, A. T. (1986). Fitness: A Lifetime Committment. (3 ed.). New York: MacMillan Publishing Company.
- National Center for Health Statistics (1996). Health, United States, 1995. Hyattsville, MD: Public Health Service.
- National Center for Health Statistics (1998). Health in America Tied to Income and Education. Available online:

http://www.cdc.gov/nchswww/releases/98news/98news/huspr98.htm viewed March 30, 1998.

- National Institute of Health. (1995). Physical Activity and Cardiovascular Health. NIH Concensus Statement, 13(3), 1-33.
- Oatey, J. S. (1991). Wellness: A Future Direction. In R. L. BOucher & W. J. Weese (Eds.), Management of Recreational Sports in Higher Education (pp. 47-57): Brown & Benchmark.

- Opatz, J. P. . Wellness Promotion Strategies. Paper presented at the Eighth Annual Wellness Conference.
- Opatz, J. P. (1985). A Primer of Health Promotion: Creating Healthy Organizational Cultures. Washington, D.C.: Oryn Publications, Inc.

Opatz, J. P. (1994). Economic Impact of Work Site Health Promotion.

- Osborne, D., & Gaebler, T. (1992). Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector. Reading, MA: Addison-Wesley.
- Pate, R. R., Pratt, M., Blair, S. N., Haskell, W. L., Macera, C. A., & Bouchard, C. (1996). Physical Activity and Public Health: A Recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. *Journal of the American Medical Association*, 276, 241-246.
- Schmottlach, N. (1992). What's Happening in Wellness in Higher Education. In C. a. U. P. Associaton (Ed.), Wellness: A Bargain for Life. Resource Guide for Higher Education .
- Sivik, S. J., Butts, E. A., Moore, K. K., & Hyde, S. A. (1982). College and University Wellness Programs: An Assessment of Current Trends. National Association of Student Personnel Administrators, 29(2), 136-142.
- Sloan, R., Gruman, J., & Allegrante, J. (1987). Investing in Employee Health: A Guide to Effective Health Promotion in the Workplace. San Francisco: Jossey-Bass.
- Stokols, D., Pelletier, K. R., & Fielding, J. R. (1995). Integration of Medical Care and Worksite Health Promotion. The Journal of the American Medical Association, 273(4), 1136.

Thomas, L. O. (1978). On Magic in Medicine. New England Journal of Medicine, August 31.

Toynbee, A. (1948). Civilization on Trial. New York: Oxford University Press.

- US Bureau of the Census. (1995). Sixty-Five Plus in the United States (Statistical Brief.). Washington, D.C.: US Department of Commerce, Economics and Statistics Administration.
- US Department of Health and Human Services. (1979). Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention (PHS 79-55071). Washington, D.C.: Government Printing Office.
- US Department of Health and Human Services. (1991). Healthy People 2000: National Health Promotion and Disease Prevention Objectives . Washington, D.C.: Office of the Assistant Secretary for Health.
- US Department of Health and Human Services. (1996). *Physical Activity and Health: A Report of the Surgeon General*. Atlanta, GA: US Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- Van Huss, W. D., Niemeyer, R. K., Olson, H. W., & Friedrich, J. A. (1960). *Physical* Activity in Modern Living. Englewood Cliffs, NJ: Prentice-Hall, Inc.
- Warner, M. J. (1984). Wellness Promotion in Higher Education. National Association of Student Personnel Administrators Journal, 3(2), 32-38.
- Weiss, R. A. (1964). Is Physical Fitness Our Most Important Objective? Journal of Health, Physical Education and Recreation, 35(2), 17-18, 61.

Willgoose, C. E. (1965). Value Illness. Journal of Health, Physical Education and Recreation, 36(3), 25, 74.

Williams, R. M. N. a. G. C. (1998). Evolution and the Origins of Disease. Scientific American, November, 86-93.