

AD-A213 587 INFORMATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPO N/A			1b. RESTRICTIVE MARKINGS N/A		
2a. SECURITY N/A			3. DISTRIBUTION / AVAILABILITY OF REPORT Unclassified/Unlimited		
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE N/A			5. MONITORING ORGANIZATION REPORT NUMBER(S)		
4. PERFORMING ORGANIZATION REPORT NUMBER(S) 48-89			7a. NAME OF MONITORING ORGANIZATION U.S. Army-Baylor University Graduate Program In Health Care Administration		
6a. NAME OF PERFORMING ORGANIZATION West Point, MEDDAC		6b. OFFICE SYMBOL (If applicable) HSUD-CS	7b. ADDRESS (City, State, and ZIP Code) AHS San Antonio, TX 78234-6100		
6c. ADDRESS (City, State, and ZIP Code)		8b. OFFICE SYMBOL (If applicable)			
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER			
8c. ADDRESS (City, State, and ZIP Code)		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) A Study To Develop A Model For An Implementable Health Promotion Program For The United States Corps Of Cadets At The United States Military Academy At West Point, New York					
12. PERSONAL AUTHOR(S) Lewis, Gordon Andrew					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM 87/07/22 TO 88/07/27		14. DATE OF REPORT (Year, Month, Day) 88/07/27	
15. PAGE COUNT 112					
16. SUPPLEMENTARY NOTATION N/A					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	Health Promotion, United States Military Academy, Wellness, Health Risk Appraisal		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The study develops a model for an implementable health promotion program for the cadet member of the United States Corps of Cadets, West Point, NY. Following a discussion of models in general the paper discusses in depth an iterative ongoing four-step process in addressing the unique challenges of the target population. As this research is the beginning of an ongoing process of development, the author makes recommendations on possible ways of implementing health promotion for the Corps of Cadets to include the use of health risk appraisals and a local area network.					
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT ☒ UNCLASSIFIED/UNLIMITED ☐ SAME AS RPT. ☐ DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION N/A		
22a. NAME OF RESPONSIBLE INDIVIDUAL Lewis, Gordon Andrew			22b. TELEPHONE (Include Area Code) (914) 938-4808		22c. OFFICE SYMBOL HSUD-CS

89 10 23 065

A STUDY TO DEVELOP
A MODEL FOR AN IMPLEMENTABLE
HEALTH PROMOTION PROGRAM FOR
THE UNITED STATES CORPS OF CADETS
AT
THE UNITED STATES MILITARY ACADEMY
AT
WEST POINT, NEW YORK

A Graduate Research Project
Submitted to the Faculty of
Baylor University
In Partial Fulfillment of the
Requirements for the Degree
of
Master of Health Administration
by
Captain Gordon A. Lewis, Medical Service Corps
1 November 1988

"Each patient (each person) carries his own doctor inside him. They come to us knowing that truth. We give the doctor who resides within each patient a chance to go to work".

--Dr. Albert Schwieitzer

Accession For	
NTIS GRA&I	☒
DTIC TAB	☐
Unannounced	☐
Justification	
By	
Distribution/	
Availability Codes	
Dist (A) (U) (S) (C) (R) (O) (G) (D) (E) (F) (H) (I) (J) (K) (L) (M) (N) (P) (Q) (R) (S) (T) (V) (W) (X) (Y) (Z) (AA) (AB) (AC) (AD) (AE) (AF) (AG) (AH) (AI) (AJ) (AK) (AL) (AM) (AN) (AO) (AP) (AQ) (AR) (AS) (AT) (AU) (AV) (AW) (AX) (AY) (AZ) (BA) (BB) (BC) (BD) (BE) (BF) (BG) (BH) (BI) (BJ) (BK) (BL) (BM) (BN) (BO) (BP) (BQ) (BR) (BS) (BT) (BU) (BV) (BW) (BX) (BY) (BZ) (CA) (CB) (CC) (CD) (CE) (CF) (CG) (CH) (CI) (CJ) (CK) (CL) (CM) (CN) (CO) (CP) (CQ) (CR) (CS) (CT) (CU) (CV) (CW) (CX) (CY) (CZ) (DA) (DB) (DC) (DD) (DE) (DF) (DG) (DH) (DI) (DJ) (DK) (DL) (DM) (DN) (DO) (DP) (DQ) (DR) (DS) (DT) (DU) (DV) (DW) (DX) (DY) (DZ) (EA) (EB) (EC) (ED) (EE) (EF) (EG) (EH) (EI) (EJ) (EK) (EL) (EM) (EN) (EO) (EP) (EQ) (ER) (ES) (ET) (EU) (EV) (EW) (EX) (EY) (EZ) (FA) (FB) (FC) (FD) (FE) (FF) (FG) (FH) (FI) (FJ) (FK) (FL) (FM) (FN) (FO) (FP) (FQ) (FR) (FS) (FT) (FU) (FV) (FW) (FX) (FY) (FZ) (GA) (GB) (GC) (GD) (GE) (GF) (GG) (GH) (GI) (GJ) (GK) (GL) (GM) (GN) (GO) (GP) (GQ) (GR) (GS) (GT) (GU) (GV) (GW) (GX) (GY) (GZ) (HA) (HB) (HC) (HD) (HE) (HF) (HG) (HH) (HI) (HJ) (HK) (HL) (HM) (HN) (HO) (HP) (HQ) (HR) (HS) (HT) (HU) (HV) (HW) (HX) (HY) (HZ) (IA) (IB) (IC) (ID) (IE) (IF) (IG) (IH) (II) (IJ) (IK) (IL) (IM) (IN) (IO) (IP) (IQ) (IR) (IS) (IT) (IU) (IV) (IW) (IX) (IY) (IZ) (JA) (JB) (JC) (JD) (JE) (JF) (JG) (JH) (JI) (JJ) (JK) (JL) (JM) (JN) (JO) (JP) (JQ) (JR) (JS) (JT) (JU) (JV) (JW) (JX) (JY) (JZ) (KA) (KB) (KC) (KD) (KE) (KF) (KG) (KH) (KI) (KJ) (KK) (KL) (KM) (KN) (KO) (KP) (KQ) (KR) (KS) (KT) (KU) (KV) (KW) (KX) (KY) (KZ) (LA) (LB) (LC) (LD) (LE) (LF) (LG) (LH) (LI) (LJ) (LK) (LL) (LM) (LN) (LO) (LP) (LQ) (LR) (LS) (LT) (LU) (LV) (LW) (LX) (LY) (LZ) (MA) (MB) (MC) (MD) (ME) (MF) (MG) (MH) (MI) (MJ) (MK) (ML) (MM) (MN) (MO) (MP) (MQ) (MR) (MS) (MT) (MU) (MV) (MW) (MX) (MY) (MZ) (NA) (NB) (NC) (ND) (NE) (NF) (NG) (NH) (NI) (NJ) (NK) (NL) (NM) (NN) (NO) (NP) (NQ) (NR) (NS) (NT) (NU) (NV) (NW) (NX) (NY) (NZ) (OA) (OB) (OC) (OD) (OE) (OF) (OG) (OH) (OI) (OJ) (OK) (OL) (OM) (ON) (OO) (OP) (OQ) (OR) (OS) (OT) (OU) (OV) (OW) (OX) (OY) (OZ) (PA) (PB) (PC) (PD) (PE) (PF) (PG) (PH) (PI) (PJ) (PK) (PL) (PM) (PN) (PO) (PP) (PQ) (PR) (PS) (PT) (PU) (PV) (PW) (PX) (PY) (PZ) (QA) (QB) (QC) (QD) (QE) (QF) (QG) (QH) (QI) (QJ) (QK) (QL) (QM) (QN) (QO) (QP) (QQ) (QR) (QS) (QT) (QU) (QV) (QW) (QX) (QY) (QZ) (RA) (RB) (RC) (RD) (RE) (RF) (RG) (RH) (RI) (RJ) (RK) (RL) (RM) (RN) (RO) (RP) (RQ) (RR) (RS) (RT) (RU) (RV) (RW) (RX) (RY) (RZ) (SA) (SB) (SC) (SD) (SE) (SF) (SG) (SH) (SI) (SJ) (SK) (SL) (SM) (SN) (SO) (SP) (SQ) (SR) (SS) (ST) (SU) (SV) (SW) (SX) (SY) (SZ) (TA) (TB) (TC) (TD) (TE) (TF) (TG) (TH) (TI) (TJ) (TK) (TL) (TM) (TN) (TO) (TP) (TQ) (TR) (TS) (TT) (TU) (TV) (TW) (TX) (TY) (TZ) (UA) (UB) (UC) (UD) (UE) (UF) (UG) (UH) (UI) (UJ) (UK) (UL) (UM) (UN) (UO) (UP) (UQ) (UR) (US) (UT) (UU) (UV) (UW) (UX) (UY) (UZ) (VA) (VB) (VC) (VD) (VE) (VF) (VG) (VH) (VI) (VJ) (VK) (VL) (VM) (VN) (VO) (VP) (VQ) (VR) (VS) (VT) (VU) (VV) (VW) (VX) (VY) (VZ) (WA) (WB) (WC) (WD) (WE) (WF) (WG) (WH) (WI) (WJ) (WK) (WL) (WM) (WN) (WO) (WP) (WQ) (WR) (WS) (WT) (WU) (WV) (WW) (WX) (WY) (WZ) (XA) (XB) (XC) (XD) (XE) (XF) (XG) (XH) (XI) (XJ) (XK) (XL) (XM) (XN) (XO) (XP) (XQ) (XR) (XS) (XT) (XU) (XV) (XW) (XX) (XY) (XZ) (YA) (YB) (YC) (YD) (YE) (YF) (YG) (YH) (YI) (YJ) (YK) (YL) (YM) (YN) (YO) (YP) (YQ) (YR) (YS) (YT) (YU) (YV) (YW) (YX) (YY) (YZ) (ZA) (ZB) (ZC) (ZD) (ZE) (ZF) (ZG) (ZH) (ZI) (ZJ) (ZK) (ZL) (ZM) (ZN) (ZO) (ZP) (ZQ) (ZR) (ZS) (ZT) (ZU) (ZV) (ZW) (ZX) (ZY) (ZZ)	

TABLE OF CONTENTS

LIST OF FIGURES.....	v
LIST OF TABLES.....	vi
ACKNOWLEDGEMENTS.....	vii
DEDICATION.....	xi
CHAPTER	
I. INTRODUCTION	
Overview.....	1
Conditions Which Prompted the Study.....	5
Problem Statement.....	7
Objectives.....	7
Criteria.....	8
Assumptions.....	9
Limitations.....	10
Research Methodology.....	11
II. DISCUSSION	
Overview of Objectives.....	14
Models.....	20
The Army Health Promotion Program.....	25
Planning: Identification of the needs of the community.....	30
Target Population Trend Data.....	31
Programming: Strategy Formation and Policy Development.....	36
Resource Identification and Program Priorities.....	36
Primary Area of Concentration.....	40
Secondary Area of Concentration.....	43
Goals and Objectives.....	46
Executing: Program Implementation.....	49
Evaluating: Ongoing Monitoring and Evaluation.....	52
Overview of Criteria.....	58
III. RECOMMENDATIONS AND CONCLUSIONS	
Recommendations.....	62
Conclusion.....	69
APPENDIX	
A. The USCC Health Promotion Resource Model...	73
B. The USMA Health Promotion Resource Model...	80
C. Health Risk Appraisal Respondent Analysis...	87

TABLE OF CONTENTS

WORKS CITED.....	91
WORKS CONSULTED.....	96

LIST OF FIGURES

Figure 1	Inputs to Health.....	21
Figure 2	Suggested Elements for Fit-to-Win Program..	24
Figure 3	Army Program Elements in Health Promotion..	26
Figure 4	Development of An Installation Program.....	28
Figure 5	The USCC Health Promotion Process Model....	29
Figure 6	Composition of Health Promotion Council....	38
Figure 7	Change Agent Model.....	48
Figure 8	Iterative Cycle of Planning.....	55
Figure 9	U.S. Army Wellness Check.....	63
Figure 10	U.S. Army Wellness Check.....	65

LIST OF TABLES

Table 1..Profile--Class of 1990.....35

ACKNOWLEDGEMENTS

The residency year brought with it some firsts in my life:

a. My first daughter, Noel Maureen, who was born at home,

b. My first son, Sean, completed first grade using home school.

c. I had my first Communion,

d. my first gray hair (along with my continuing receding hairline.) grew in,

e. my first real, introspective thinking on how fallible we are and how important our parents are to us,

f. my first opportunity to be an Acting Deputy Commander for Administration, and,

g. The promise of my first 67A job at the completion of the U.S. Army/ Baylor University program.

During the year I also realized that there are many things to be thankful for:

a. I am thankful for my first daughter.

b. I am thankful for being afforded the opportunity, during the residency year, to truly experience the many challenges of command. I was able to view first-hand the trials and tribulations of command because of the support of the Command group at Keller Army Community Hospital. I feel I benefited from their open and frank discussions about every issue.

c. I am thankful for the support and teamwork of the MEDDAC family and their caring attitude throughout this residency year. (Did I mention the gray hair?!)

Although there are so many people who have made this year one that will be remembered as both challenging and rewarding, there are some people who I

own a special debt of gratitude.

First, Colonel Wolcott, who sets the tone and direction at the hospital with his thought-provoking ideas and concepts and his willingness to encourage risk-taking and innovation, has been extremely open with me and epitomizes what a Commander should be.

I will be ever-grateful to Lieutenant Colonel Stevens for creating a special bond between the Preceptor and Administrative Resident. He was supportive of my ideas on the design of an innovative residency that highlighted the corporate level of the Army Medical Department--and if not for funding constraints-- supported a residency that would have included attending Cornell University and The Hastings Center. For this alone any resident would surely be elated. However, he did so much more.

He gave me the latitude to adjust my residency, the motivation to complete this graduate thesis, his patience and helping hand when I was faltering, and shared his experiences which I truly value. Additionally, he set high standards and expectations and **challenged** me on my opinions while at the same time **listening** to my opinion. His Socratic questions guided my thinking. And finally, he gave me the opportunity to become reacquainted with my family.

I am also grateful for the kind and continued support of the Baylor faculty in San Antonio. They were always willing to listen to my frustrations and were especially supportive of me while I worked through the thoughts I had when I heard my father had terminal lung cancer.

A special note of thanks goes to my co-workers at the West Point MEDDAC for their words of encouragement, their willingness to be flexible on the planned rotations, and their unfailing support during the residency year. I wish to expressly mention the Medical Librarians here at Keller, Manja and Susan, for their hard efforts in getting requested materials in a timely fashion and their gentle prodding to return books and to finish writing my paper.

And finally to my sons, Sean and Eric, my daughter Noel (did I mention her yet?!), and my darling wife Maureen. Without their love, support, and patience I would never have been able to complete this two year course of study, culminating in this thesis. Specifically, my children renewed my wonderment with the world and my wife gave me her strength and understanding. She was supportive of me in my role as student, while always maintaining her role as a loving mother to our children and as a loving wife to me.

DEDICATION

This paper is dedicated to my mother and father who gave me strength during a very stressful time of potential sadness.

Throughout my father's bout with lung cancer, (which in fact was ultimately and successfully overcome) they were courageous and optimistic.

Despite the severity of the initial diagnosis, they both took personal actions to improve their health by quitting smoking, taking walks together, and reaffirming their faith in God.

In short, their actions serve as a reminder that there are positive effects to implementing the tenets of health promotion. It is my hope that each one of us may learn something from this.

Captain Gordon A. Lewis
Major Richard Varney
Graduate Research Project
1 November 1988

A STUDY TO DEVELOP A MODEL
FOR AN IMPLEMENTABLE HEALTH PROMOTION PROGRAM
FOR THE UNITED STATES CORPS OF CADETS AT
THE UNITED STATES MILITARY ACADEMY AT
WEST POINT, NEW YORK

I. INTRODUCTION

Overview

In 1979, the United States Surgeon General report, Healthy People, stated that "cardiovascular disease, including both heart disease and stroke" accounted for "roughly half of all deaths" in America, with cancer accounting for "another 20 percent" (vii). These statements are supported in the current literature. As an example, Fielding states that "diseases that take many years to develop and are characterized by chronicity have supplanted infectious diseases as the primary causes of death" (Fielding, 4).

The report also emphasized the fact that since the "roots of many adult chronic diseases, may be

found in early life", then the health of America could be vastly improved via prevention of those risks that are known to be the principal causes of the current morbidity and mortality statistics of the nation (Healthy People, 16).

Prevention is not a new concept. From Ancient Chinese texts to classical Greek writings there are ample references to the linkages of the "concepts of disease prevention and health promotion" (Healthy People, 6). Following World War II, vaccines, antibiotics, surgical techniques, and complex diagnostic technologies were developed. These breakthroughs had a significant impact on the improvement of health. Understandably, based upon these breakthroughs, people placed all their confidence in the medical establishment. However, this "golden age began to fade with the realization that these marvels could not wipe out viral infection, cancer, or heart disease" (Faber, 336). Thus a shift occurred from acute illness to chronic illness. With this shift toward chronic illness it became clear that these chronic conditions were "more amenable to responsible individual interventions" (Faber, 337). In fact, the "growing understanding of the causes and risk factors" for both chronic diseases and adolescent morbidity and mortality has changed many lifestyles. Despite this knowledge, and many of the citizenry

making what are considered positive lifestyle changes (i.e., reducing cholesterol and increasing aerobic exercise), the Surgeon General astutely observed that the ability to deal with problems of health in a preventable manner "depends, in many ways, more on our skills in mobilizing individuals and groups working together in schools and communities, than on the efforts of the health care community" (Healthy People, 7)

A noted health care planner, Henrick Blum supports the Surgeon General's view as Blum sees risk reduction "emanating from two sources". One source, which he calls the micro source, "embraces the efforts made by individuals to so comport themselves as to minimize their exposure to health hazards". The second source, or the macro source, encompasses the "efforts made collectively by a society to preclude or minimize the possibility of its members being exposed to health hazards". He believes that "significant risk reduction can only be built upon intermeshing the micro and macro approaches, for each is dependent on the stimulation and actions of the other" (Blum, 19). Blum praised Healthy People for bringing "major macro concerns back to the risk reduction field. Perhaps efforts such as these will restore to risk reduction a meaningful macro as well as micro outlook" (Blum, 29).

Certainly, the intent of any health promotion program is to improve the health of the individual. The World Health Organization defines health as a state of complete physical, mental, and social well-being. Certainly there are other definitions as well. In fact, attempting to create one acceptable definition of health would be an arduous, if not an unattainable, task. Thus, rather than attempting to achieve consensus on a universal definition of health and what health is, current literature emphasizes the need "to define objectives of programs to improve health" (Fielding, 4).

In Promoting Health/Preventing Disease:

Objectives for the Nation, the Surgeon General did just this by operationally defining a set of measurable and tangible goals and objectives for the nation, which, if achieved, would create a healthier populace. (Indeed, these goals and objectives will be of value in setting the direction of this study, as will be discussed later.)

The report found that the leading causes of death among those people ranging from adolescence to early adulthood (ages 15-24) are the result of "accidents and violence" (Healthy People, 16). Again, quoting from Fielding, "auto accidents are the leading cause of death in this country from infancy to early

middle age" (Fielding, 7). Although there have been many messages via public service announcements and, presumably, in the forefront of the public's mind, still "the mind seemed far from the heavy foot, which continued to propel the car in excess of every posted speed" (Fielding, 7). The Surgeon General also recognizes that reducing "the misuse of alcohol and drugs" among 15-24 year old Americans is critical to improving the health of the nation (Healthy People).

Conditions Which Prompted The Study

It seems that every day we hear or see messages urging us not to drink and drive, to reduce our cholesterol, to increase our exercise, or any of a litany of other issues which are all aimed at improving our health and lifestyle. Many of the current members of the United States Corps of Cadets (USCC) will be future officers. As officers they will be expected to set a healthy example and be knowledgeable about their responsibilities in "maintaining the human weapons system" (Wolcott, personal interview, 16 October 1987). Thus, the USMA plays a significant role in preparing these young men and women for their leadership roles, as institutions of higher learning "provide undergraduate students with

the knowledge and, just as importantly, the practical skills necessary to reduce their risks of premature illness and disability" (Hyner and Melby, 265).

A review of the Organization and Functions manual for both the United States Corps of Cadets and the United States Military Academy, found a plethora of activities which potentially support the wellness of the members of the Corps. However, these activities and wellness functions are currently separate and uncoordinated (USMA Regulation 10-1). These facts, coupled with the recent publication of Army Regulation 600-63, Army Health Promotion (which establishes the Army Health Promotion Program) created an interest in developing a program to benefit the United States Corps of Cadets assigned at the United States Military Academy, West Point, New York.

This is of particular concern in an era of constrained resources, as the "directionless wearing down of collective resources by potentially lethal, intersectoral blood-lettings is no longer affordable" (Blum, 34). In fact, a coordinated health promotion program can significantly improve "health risks, health behaviors and attitudes, and the attitudes toward the organization" (Spilman, 289.) Thus, it would appear that health promotion programs can offer

substantial benefits to not only the individual but also to "the organizations that choose to implement such programs" (Spilman, 289). With this in mind, a formal problem statement was developed for this study.

Problem Statement

The problem statement for this study is to develop a model for an implementable health promotion program for the United States Corps of Cadets at the United States Military Academy at West Point, New York.

Objectives

The objectives of this study are:

1. To perform a literature review on the topic of wellness programs with emphasis on information related to the collegiate/academic setting. The literature review will be conducted to identify current trends, issues, and related research pertaining to the research problem statement.
2. To determine the requirements of the United States Army Medical Department Activity

(USAMEDDAC), West Point; United States Army Health Services Command (HSC); Office of the Surgeon General (OTSG); Department of the Army (DA); Department of Defense (DoD) regulations; and the Joint Commission on the Accreditation of Healthcare Organizations (JCAHO) standards as they pertain to health wellness programs.

3. To determine which improved technology, such as automation and equipment, would facilitate the implementation of a health wellness program for the United States Corps of Cadets (USCC) at the United States Military Academy (USMA) at West Point, New York.

4. To determine the currently available community services at West Point which may be incorporated into a comprehensive health wellness program for the USCC at the USMA.

Criteria

The following criteria will set the standards against which the problem resolution will be evaluated or the results validated:

1. Any requirements and standards for the

proper development of a wellness program as may be prescribed by the JCAHO must be met.

2. Requirements and standards for the proper implementation of a wellness program as prescribed by HSC, the OTSG, DA and DoD must be met.

3. USAMEDDAC, West Point implementation directive(s), Standing Operating Procedure(s) and guidelines should adhere to the requirement(s) specified by HSC, the OTSG, DA, DoD, and the JCAHO.

4. The proposed health promotion program management process model should be acceptable to the post-level Health Promotion Council.

5. The JSCC health promotion program management process model must be implementable and not require excessive expenditures of resources (i.e., expanding physical plant).

Assumptions

To realistically pursue this study and implement

its final recommendations, the following assumptions were made:

1. That a coordinated, health wellness program for the USCC at the USMA, West Point, New York is desirable.
2. That the installation-level Health Promotion Council will support a model for an implementable health wellness program for the USCC at West Point, New York.
3. That the USMA Command group will support a plan aimed at implementing a health wellness program at the USMA for members of the USCC.

Limitations

In the pursuit of this study, the following limitations were taken into consideration:

1. The literature review will restrict the analysis of health wellness issues primarily related to the age group attending the USMA and to those programs found in a college setting.

2. The study will restrict the development of a model for an implementable health wellness program to the USCC.

Research Methodology

The research methodology for this study was pursued in three phases:

Phase I--Collection Of Data:

1. The in-depth literature search concentrated on the area of health wellness programs already existing in the college arena of likesize institutions of higher learning in the United States. The literature search helped identify current trends in the development and implementation of health wellness programs as well as providing a review of how other college institutions developed such programs.

2. All applicable JCAHO, DoD, DA, OTSG, HSC standards and regulations were reviewed.

3. Inquiries were sent to national clearinghouse organizations such as the National Insurance Council, that are involved in the

development and implementation of health wellness programs. Pertinent information was used in the study.

4. Interviews were developed and conducted by the researcher.

5. HSC staff members were interviewed to ascertain their perspectives on health wellness programs with emphasis on the possibility of receiving further guidance from DA or DoD on this issue.

6. The collection of any relevant retrospective data included efforts to obtain historical reports concerning health wellness items of interest. Sources for this information consisted of:

a. Committee minute meetings that may have discussed health wellness items of interest.

b. Inspector General or JCAHO reports from the past three years.

Phase II--Recording Of Data:

1. Documents, journals and books reviewed were referenced.

2. Responses to interviews were compiled and incorporated into the study, as appropriate.

Phase I--Evaluation of Data:

1. This phase consisted of the development of recommendations concerning the proposed model for an implementable health wellness program for the USCC at the USMA. Efforts were made to develop summary and trend information from the data collected.

2. The data from the DoD, the DA, the OTSG, HSC and the JCAHO were critically analyzed to develop a management process model for an implementable health promotion program that would adhere to existing guidance. Efforts were made to develop summary and trend information from the data collected.

3. Based upon the evaluation, a working model was presented to the USMA Health Promotion Council for review and implementation.

II. DISCUSSION

Overview of Objectives

It is appropriate before continuing, to briefly discuss each of the four established objectives mentioned in Chapter One. Objectives one and two served to establish an informational baseline regarding health promotion programs. Emphasis was placed on performing a thorough literature review that gathered data and information on health promotion programs, with particular emphasis on programs unique to the academic setting. The literature review was a vital component of this thesis, as it established a solid foundation upon which to build. Overall the researcher found the basic tenets of health promotion to emphasize such elements as physical fitness, nutrition, stress management, etc. for all age groups. Concomitantly, there are significant specific differences in how the tenets of health promotion manifest themselves in, and affect, different age groups. The intent of the research effort was to focus on the 17-25 year old age group. The results and findings of the literature review are used throughout the paper.

Likewise, an exhaustive research effort was undertaken to determine the requirements of various

military organizations as well as the JCAHO, as they pertain to health wellness programs. On 11 March 1986, by DoD Directive 1010.10, a health promotion policy was established throughout DoD to improve and maintain "military readiness and the quality of life" of DoD personnel (Commander's Guide, 2). The DoD guidelines set priorities on health promotion, identified six areas of concern, (Antitobacco use, stress management, hypertension, nutrition, physical conditioning, and substance abuse.) and directed each service to develop a health promotion program.

Based on the directive from DoD, the Army created a regulation that prescribes policy, responsibilities, and procedures for the Army health promotion program. This regulation, AR 600-63, titled The Army Health Promotion Program, became effective 17 December 1987. This regulation outlines the responsibilities of various organizations throughout the Army to include, but not limited to, the Surgeon General, major Army commands, installation Commanders, and MEDDAC/MEDCEN Commanders. AR 600-63 also establishes a health promotion program which integrates currently existing health programs, prescribes policies for each health promotion program area, establishes and describes the mission of a Health Promotion Council (HPC), and provides guidance for smoking cessation as well as establishing the Army

Suicide Prevention Program.

Under the provisions of this regulation, the
Army Surgeon General

1. Develops policies for all medical, dental, psychological, physiological, and health areas;
2. Has Army staff responsibility for stress management;
3. Acts as DoD executive agent for nutrition policy, standards, and education programs;
4. Appoints a representative to DoD Health Promotion Coordinating Committee;
5. Plans, implements, and evaluates an automated health risk appraisal with procedures for administration and for processing and compiling the data at HQDA, MACOM, installation or community and unit levels; and
6. Assures that Army Medical Departments provide equipment and health care providers to administer and interpret the health risk

appraisal, teach classes, and compile statistics to support the health promotion program.

Health Services Command, recognizing that "health promotion programs can produce tangible benefits and improve the quality of life for HSC personnel" created a regulation regarding health promotion (HSC regulation 40-27, 1). The regulation stipulates that each MEDDAC/MEDCEN create a Health Promotion Committee designed to coordinate internal MEDDAC/MEDCEN health promotion functions. This committee must plan and coordinate the AMEDD input to the installation Health Promotion Council (HPC), assist with health education classes, and provide medical intervention in support of the health promotion program.

Based upon the HSC regulation, the West Point MEDDAC has the responsibility to act as a focal point for health education activities, with the Commander serving as the principle advisor to the installation HPC. In addition, the MEDDAC Commander is required to appoint a Fitness Facilitator "capable of coordinating resources of the MEDDAC to support the goals and objectives of the HPC" (HSC regulation 40-27, 2).

In short, the U.S. Army has taken strides to create a structure for a health promotion program. In The United States Army Posture Statement FY 89,

General Carl E. Vuono, U.S. Army Chief of Staff and John O. Marsh Jr., Secretary of the Army stated;

"The goal of the Army Health Promotion Program is to improve personnel readiness, productivity, and morale by promoting a healthier lifestyle for members of the Total Army. The program coordinates health efforts in the areas of physical conditioning, weight control, nutrition, tobacco use, stress management, drug and alcohol abuse, and suicide prevention" (20).

The JCAHO remains silent on health promotion programs per se. It must be emphasized, however, that the JCAHO standards apply to any health promotion program's medical component. For instance, a blood sample must be drawn to determine the cholesterol level of the patient. Once this level is determined it is used as part of a health risk assessment of the patient. In other words, when this blood sample is drawn, the same standards of care apply to the drawing of the blood (i.e., infection control standards) as would apply to any other outpatient and hospital-based ambulatory care procedure.

The third objective of the research was to

determine which improved technology would facilitate the implementation of a health promotion program for the USCC. As will be seen later in this paper, the application of automated data processing and a computer communications network are also addressed.

The final objective was to determine the currently available community services at West Point which could be incorporated into a health wellness program. This was accomplished by gathering pertinent information regarding the community services at the USMA and within the USCC. This information was gathered primarily by using the USMA Organization and Functions manual as the source document. Based upon this research and analysis, matrices were developed by the researcher. The intent of these matrices was to highlight how various community services and activities at the USMA (and within the USCC) may be useful in providing support or services to the post HPC and specifically to the USCC. These matrices may be found at Appendix A and B and will be discussed in far greater detail later in this paper.

In short, the purpose of this discussion has been to provide a general overview of the established objectives of the study. It became clear once information was collected that common ground existed between academic settings and the established

guidelines for the military. Conversely, the differences between the two settings became evident as well. Thus, it is my intent to note these similarities and differences and integrate this information throughout this chapter and the chapter that follows.

Models

According to the American Educator's Encyclopedia, models help "to identify and illustrate how the components of a particular system, theory or concept are interrelated" and do not "constitute a theory or concept; rather, they are used to reinforce the more extensive narrative description".

The literature shows that there are a number of potential models that could apply to health promotion programs. This plethora of information was helpful in developing a model for an implementable program at the United States Military Academy (USMA) for the United States Corps of Cadets (USCC). In establishing an initial frame of reference, it is worthwhile and appropriate to provide some background information pertinent to the issue at hand.

A model which specifically applies to health was developed by Blum and is provided at figure 1. This renowned health planner views the inputs to health as

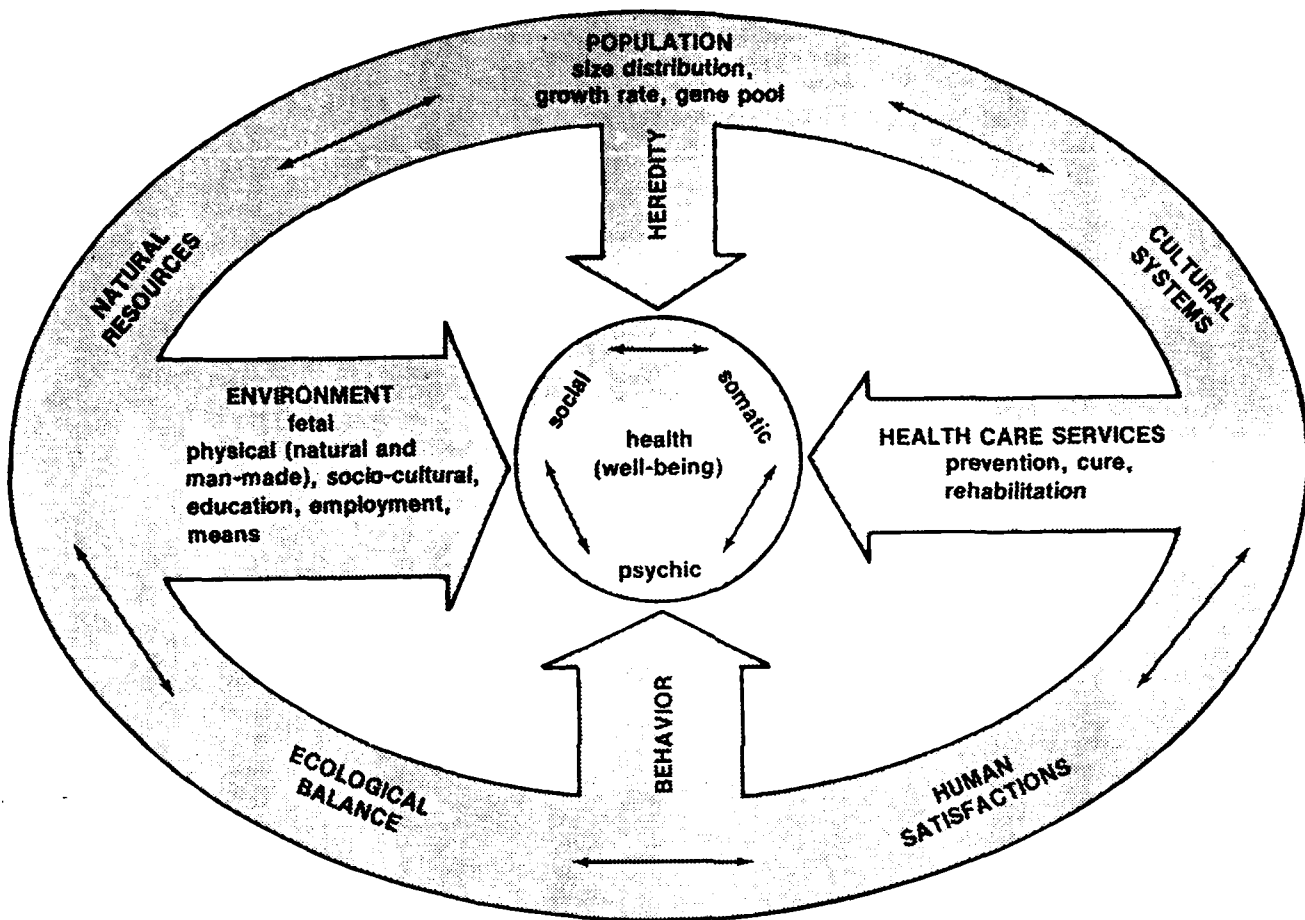


Fig 1. Inputs to Health from Hendrick Blum, Planning for Health, (New York: Human Sciences Press, 1974) 8.

Environment, Behavior, Health Care Services, and Heredity. Note that the width of each of the arrows as depicted in this model, represents the relative importance of each of these inputs to health. By connecting the arrows with the outer loop, Blum graphically shows the interactions these inputs have, both individually and collectively, as they impinge upon the individual.

The health outcome in Blum's view, has three components (the Psychological, Sociological, and Somatic). Blum's Inputs to Health model emphasizes the influence that the individual and the environment have in creating well being. In other words, Blum's micro and macro view (as stated in Chapter One) interact with each other creating an outcome that he sees as "health". Thus, there exists a potentially positive synergism resulting in improved well-being.

This conceptualization is supported by others. Writing in Megatrends, Naisbitt sees what he terms a "new health paradigm". He states that this new paradigm is a shift away from institutionally held health care and a shift toward the individual's accepting "personal responsibility for their health" (Naisbitt, 23). Relatedly, Behrens and Longe state that the health of children is affected by a variety of factors. These factors include the "traditional measures of health (such as heredity, health of family

members, and peers, race, mother's level of prenatal care), socioeconomic circumstances, and of course, the individual's own lifestyle habits". They go on to state hereditary factors and socioeconomic factors are beyond the control of youth but "individual behaviors that contribute to good health can be controlled" (9). In short, Blum's model is supported by the research of others and serves to emphasize the importance of the individual.

A model highlighting the elements of the Army Health Promotion Program can be seen in figure 2. The model addresses various areas of interest generally considered components for improving one's health and well being (i.e., Physical Conditioning, Nutrition and Weight Control, etc.). Further the figure shows three incremental levels of a health promotion program, with level one representing the minimal requirements for each stated component to level three representing the most aggressive level of achieving each stated component. This approach is similar to the methodology used by The Surgeon General in Objectives for the Nation and Healthy People in that it establishes goals and objectives, albeit in a different format.

With this background on model development, let us turn to the Army Health Promotion Program in more detail.

Modules	Level 1 Program	Level 2 Program	Level 3 Program
Commander's Guide	Introductory chapter Strategies for program management and resources	Same as Level 1	Same as Level 1
Marketing	Unit briefings Post media Community needs assessment Posters, slides, videotapes Incentives: - Personal recognition certificates - Awards Evaluation Strategies	Level 1 plus: Guest speakers Promotional items	Level 2 plus: Public relations campaigns Support groups Intramural competitions
Individual Assessment	Automated Health Risk Appraisal Health Risk Review Session	Same as Level 1	Same as Level 1
Physical Conditioning*	Community/unit based programs to include aerobic and strength development classes AR 350-15 Guidance National Fitness Month	Level 1 plus: Individualized prescription based on fitness evaluation	Same as Level 2
Nutrition and Weight Control	Pamphlets/posters brochures Media blitz for dining hall: menus National Nutrition Month AR 600-9 Guidance	Level 1 plus: Group classes Videotapes Slides/Cassette tapes	Level 2 plus: Nutritional Assessment Individualized diet plans Computerized nutritional analysis Cooking classes
Procedures Guide	Pamphlets/ Brochures/Posters Command Briefings (at least monthly) Incentive/Sustain- ment Program	Unit Training Schedules which reflect health promo- tion education classes in all areas needed	Unit Days for: Health Risk Assessment Family Health Promotion Activities
Antitobacco	Pamphlets/ brochures Media blitz: advice for smokers and non- smokers National Smokeout AR 1-3 Guidance	Level 1 plus: Group cessation programs Videotapes Radio/TV spots	Level 2 plus: Computerized cessation program Support group
Stress Management	Pamphlets/brochures Posters Welcome Packets with resources within the community Sponsorship Program associated with PCSs	Level 1 plus: Group classes Videotapes Radio/TV spots Commanders session's Unit training Community Skill/Activity Classes	Level 2 plus: Individual treatment programs conducted at Medical Treatment Facility
Hypertension Management	Pamphlets/brochures Unit level Monitoring National High Blood Pressure Month (May) Periodic B.P. checks/follow-ups	Level 1 plus: Group classes Videotapes TV, radio spots	Level 2 plus: Individual counseling
Substance Abuse Prevention	Pamphlets/brochures Posters Group meetings and classes AR 600-85 Guidance	Level 1 plus: Videotapes	Level 2 plus: Individual counseling Support groups
Spiritual Fitness	Pamphlets/brochures Posters Opportunities to meditate, pray, or worship AR 165-20	Level 1 plus: Group meetings classes Developmental activities	Level 2 plus: Individual counseling Referral agencies Values building resources Support groups
Dental Health	Pamphlets/brochures National Children's Dental Health Month Periodic Dental Examinations Unit Level Dental Fitness Classifica- tion Monitoring	Classes Videotapes Radio/TV spots Skills Classes	Individual Oral Hygiene Counseling Definitive Dental Treatment Long Term Follow-Up

Fig 2. Suggested Elements for Level 1-2-3 Fit-to-Win Programs from United States, Department of the Army, Fit-To-Win Commander's Guide, (Washington: GPO, 1987) 8-9.

The Army Health Promotion Program

As an introduction to the Army Health Promotion Program, it is appropriate to state the program elements, goals, objectives, and applicability before continuing. The goal of the program is to "maximize readiness, combat efficiency and work performance" (Army Health Promotion Program, 3).

The ten program elements may be found in figure 3. These elements are generally understood to be worthwhile areas of interest throughout one's life. In fact these elements are designed to meet the program's stated objectives of enhancing "the quality of life" for the Total Army Family and to encourage lifestyles that "improve and protect physical, emotional and spiritual health" (Army Health Promotion Program, 3).

However, it should be noted that, according to Mr. Joseph Farlow, Health Services Command, the Total Army Family does not apply to cadets. An investigation into the matter indicated the Total Army Family encompassed "all soldiers, Army civilians, family members, and retirees". In short, this definition fails to specifically mention cadets. However, in paragraph 3-5, AR 600-63, when discussing the use of the Health Risk Appraisal, the regulation states that the "unit commander will ensure all

ARMY PROGRAM ELEMENTS IN HEALTH PROMOTION

Physical Fitness

Nutrition

Weight Control

Alcohol and Drug Abuse Prevention
and Control Program

Antitobacco

Suicide Prevention

Spiritual Fitness

Hypertension

Stress Management

Oral Health

Fig 3. Army Program Elements in Health
Promotion from United States. Dept. of the Army. The
Adjutant General, The Army Health Promotion Program,
(Washington: GPO, 1987) 7.

personnel in their command are evaluated" (AR 600-63, 8). This will be interpreted, for the purposes of this paper, to include the USCC since the company tactical officers are considered in command of their cadet company (as stipulated by Title 10, Section 4349, U. S. Code).

Finally, the regulation establishes a Health Promotion Council (HPC) and provides a model for the development of an Installation Health Promotion Program (See figure 4). Albeit, the development of an Installation Health Promotion Program, per se, is beyond the scope of this paper, the planning elements evident in this figure are equally applicable to the development of a model for an implementable health promotion program for the USCC. Appropriately, then, the researcher designed a health promotion program management process model (shown in figure 5) highlighting (1) the identification of community needs, (2) the establishment of guidelines for developing a health promotion program, (3) implementation instructions, and (4) emphasizing an evaluation phase.

Generally speaking the model in figure 5 notes a cyclical four stage process beginning with planning and in turn, programming, execution, and evaluation. So as not to imply a static regimented process, the model also depicts four arrows emanating from a common

DEVELOPMENT OF AN INSTALLATION HEALTH PROMOTION PROGRAM

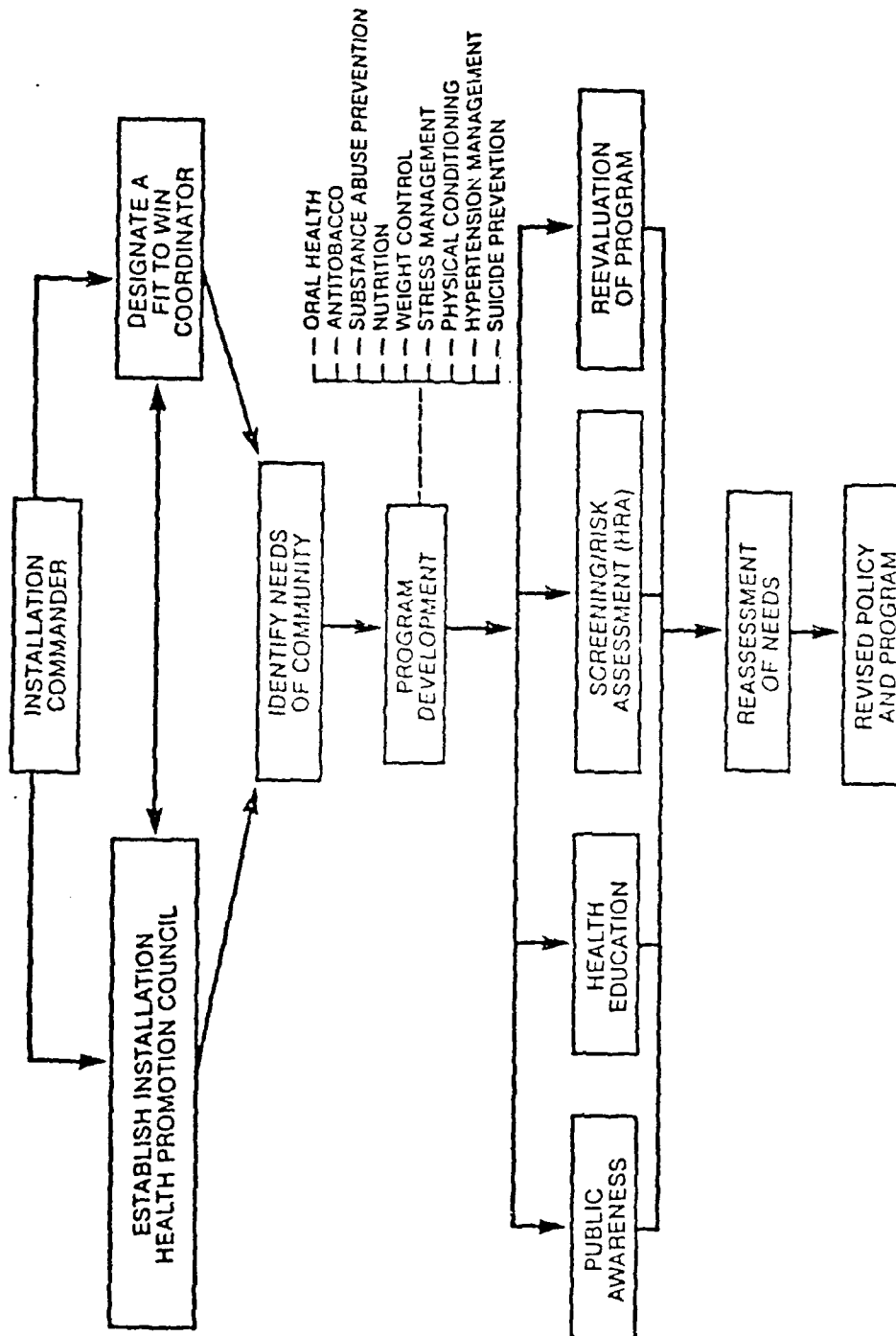


Fig 4. Development of an Installation Health Promotion Program from United States. Dept. of the Army. The Adjutant General, Army Health Promotion Program, (Washington: GPO, 1987) 11.

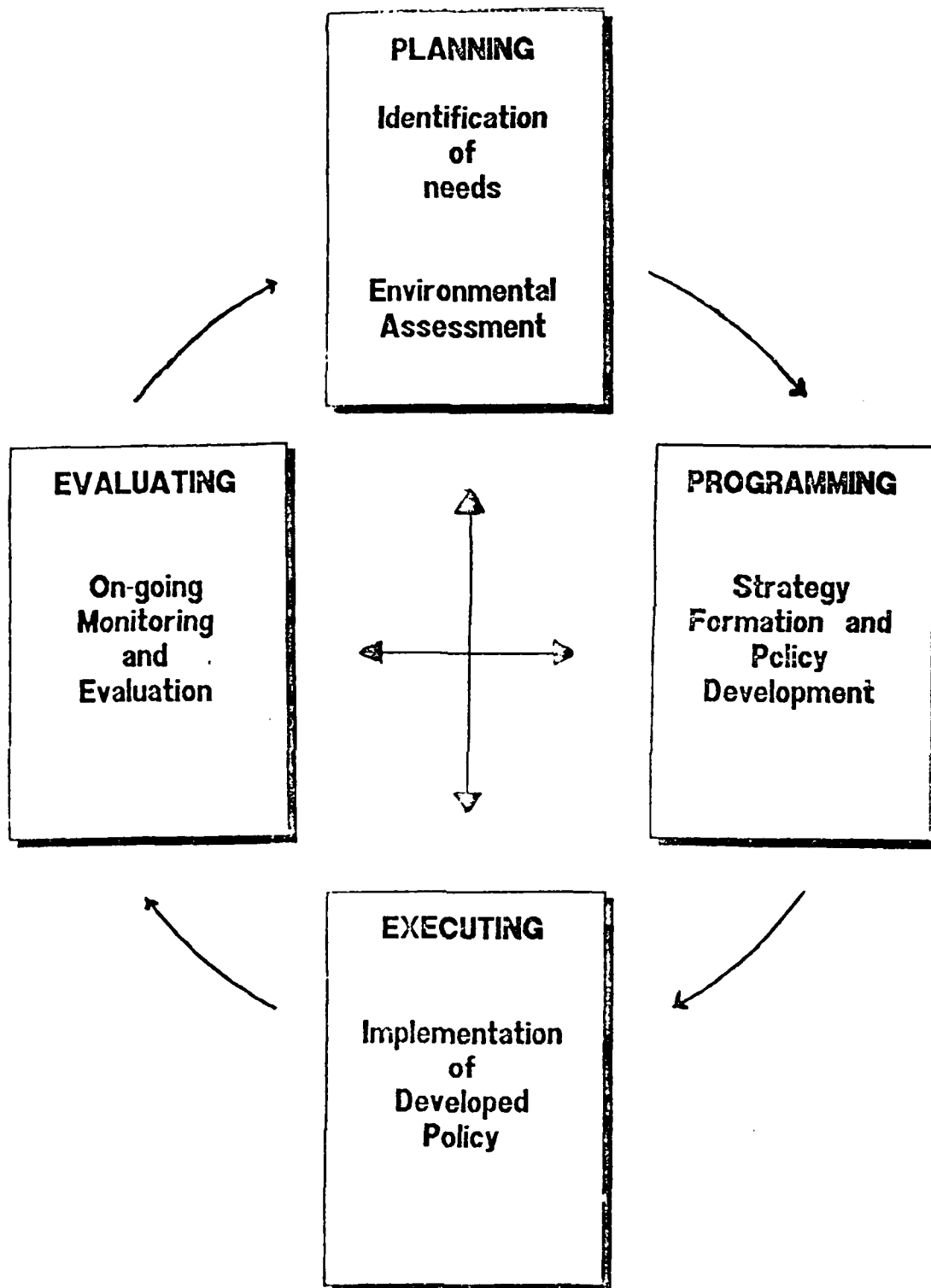


Fig 5. The USCC Health Promotion Program Process Model

center, thus emphasizing the linkage between these four stages. Let us now turn to a more detailed discussion of each of these four elements, in seriatim.

PLANNING:

Identification of the needs of the community:

Planning is the first element to be considered by the HPC. For the purpose of addressing the planning stage as it applies to health promotion, the reader needs to be aware that the most critical component is the individual, who is at the "primary level of prevention" (Carlin, 100). Therefore, in addressing the development of a model for an implementable program for the USCC, it was important to perform an "environmental assessment" of the community or target population (Shortell and Kaluzny, 420.). Thus, the age group that includes members of the USCC, was considered the target population. This method was chosen as a valid start point in performing a target population analysis because albeit:

"it is difficult to get good data on leading causes of illness and injury among children and adolescents in the United States, along with those risk factors that can be related to them, the data that is available may be of value" (Behrens and Longe, 10).

The importance of performing target population analysis is supported by Speigel and Hyman as they emphasize the need to "differentiate populations and individuals with respect to their health status" prior to the development of a program aimed at health promotion (26). It should be noted the following discussion is not intended to provide an exhaustive, in-depth analysis of major health issues of the target population, but rather to serve as a review of some representative trend information.

Target Population Trend Data:

Since 1960, the National Center for Health Statistics (NCHS) has measured the health of Americans by collecting and reporting vital and health statistics for the United States. Based upon 1981 survey results, the NCHS, in Charting the Nation's Health, found that "people of all ages have generally held just about the same perception of their personal health status over the past several years" (1). When focusing their analysis on teenagers and young adults, the report made particular note concerning deaths. Specifically, "in 1982, 76.3 percent of the deaths to young people 15-24 years of age were because of violent causes--mainly accident, homicide, or suicide" with accidents being the leading cause of

death among this same age group" (6). Regarding deaths due to suicide, since 1960 suicide rates among young adults 15-24 years of age have been "higher for white males than for either black males, white females or black females" (6-7). The NCHS, utilizing life expectancy tables for both 1960 and 1982, (coupled with the number of potential years of life lost to society as the result of the number of lives claimed in this age group due to motor vehicle accidents, homicides, and suicides) noted the number of potential years of life lost more than doubled between 1960 and 1982. Clearly, then, these should be areas of concern within the target population.

Based upon the premise that "at each stage of life, different steps can be taken to maximize well-being", the Surgeon General established goals to deal with the major health problems and risks for the age group that includes the target population of the USCC (Healthy People, 16). The goals established for this age group included improved roadway safety, reducing the misuse of alcohol and drugs, changing values and social pressures regarding nutrition and exercise, information on family planning and sexually transmittable diseases, and reduction of the availability of firearms (150-152). As noted in Charting the Nation's Health, and stated previously, this age group suffers most deaths due to suicide,

drug and alcohol abuse, and relatedly vehicular accidents. Thus, "although this information probably will not be the sole driving force behind selecting activities for youth, it can be a valuable part of any decision-making process" (Behrens and Longe, 10).

Another valuable component in understanding the target population is their personal behavior attributes. Quite frankly, this age group has a mindset that may be best described as the "Age of Invincibility". McAlister, Perry, and Maccoby state the reasons for slow progress in prevention for this target population are two-fold. First, currently there is not a "well-established system of incentive and feedback for stimulating and assessing preventive activity" and secondly, "behaviors detrimental to health are embedded in a complex milieu of social forces that often overwhelms educated rationality" (650). In short, "even if a young person develops a negative attitude toward unhealthy behaviors, she or he may not possess the skills to resist strong social pressures to conform with peers who do not share that attitude" (650-1). This is supported by the fact that the major factor students reported as influencing their decisions in health matters was "peer pressure" and that the "direct influence from a **favorite** peer appears to be the most potent" (651). Although it is "difficult to reliably assess the **cause and effect**

relationship in the area of behavioral change", preliminary data tends to "support the concept that an active, positive approach toward health and wellness can bring about behavioral change" even within this age group (Hettler, 220).

Turning specifically to the members of the USCC, table 1 presents the demographics of the Class of 1990. This table shows that members of the USCC are generally a highly educated, active, intelligent, and motivated group of young women and men. It would be reasonable to argue that the members of the USCC are so well educated and motivated that one could dismiss the offhand application of the broadly stated health concerns of the age group to members of the USCC. Although the literature states that there is "some growth in consumer self-confidence regarding health matters" and the most likely followers of health promotion activities are "young, white, suburban, educated, and financially secure" people (Faber, 338), a recent study at the University of Vermont found that "while 58 percent of the men interviewed had taken a health-related course in the past two years, 75 percent had never heard of testicular cancer" (Carlin, 99). As the "sample represented a young, well-educated, male population" one could conclude that it would be hasty and ill-advised to not use the data available for the age group and apply it

PROFILE - CLASS OF 1990

VOLUME OF APPLICANTS		Men	Women
APPLICANT FILES STARTED	11234	1761	
NOMINATED AND EXAMINED	4945	745	
QUALIFIED (academically, medically & in physical aptitude)	2501	721	
ADMITTED	1173	157	

RANK IN HIGH SCHOOL CLASS

FIRST FIFTH	87.7%
SECOND FIFTH	7.8%
THIRD FIFTH	3.9%
FOURTH FIFTH	0.3%
BOTTOM FIFTH	0.3%

**AMERICAN COLLEGE TESTING
(ACT) ASSESSMENT PROGRAM SCORES***

RANGE	ENG	MATH	NAT SCI	SOC SCI
31-36	4%	35%	47%	12%
26-30	24%	49%	39%	48%
21-25	61%	16%	12%	31%
16-20	10%	0%	2%	6%
11-15	1%	0%	0%	3%
MEAN	24	29	29	26

**COLLEGE BOARD ADMISSIONS TESTING
PROGRAM (CBATP) SCORES***

RANGE	APTITUDE	
	VERBAL	MATH
700-800	4%	22%
600-699	28%	53%
500-599	52%	24%
400-499	16%	1%
300-399	0%	0%
MEAN	570	640

*Includes only scores used as a basis for admission

ACADEMIC HONORS

CLASS VALEDICTORIANS	132
CLASS SALUTATORIANS	72
NATIONAL MERIT SCHOLARSHIP RECOGNITION	347
NATIONAL HONOR SOCIETY	858

ACTIVITIES

BOYS/GIRLS STATE DELEGATE	306
CLASS PRESIDENT OR STUDENT BODY PRESIDENT	436
SCHOOL PUBLICATION STAFF:	
- School Paper Editor or Co-Editor	95
School Paper Staff	229
Yearbook Editor or Co-Editor	80
Yearbook Staff	213
DEBATING	155
DRAMATICS	180
SCOUTING PARTICIPANTS	643
Eagle Scout (men) or Gold Award (women)	117
VARSITY ATHLETICS:	
Letter Winner	1159
Team Captain	740

Table 1. Profile--Class of 1990 from United States Military Academy, The Class of 1990, (New York: The Adjutant General, 1987) 3.

to the USCC (Carlin, 99). Couple these broad tendencies, with the relatively closed and clearly regimented environment that the members of USCC are a part of, and one may presume that there exists an environment which could be of benefit in implementing a health promotion program. In sum, in developing the model, it was important to address these unique challenges that are present in working with this particular target population. Certainly, this initial environmental assessment was but a cursory review of the target population but was felt to serve as a useful process in identifying the potential needs of the USCC. The next stage in developing the model was programming.

PROGRAMMING:

Strategy Formation and Policy Development

The program development phase of the model emphasized the need to identify resources, prioritize program elements based upon the target population analysis, and establish broad goals and objectives.

Resource Identification and Program Priorities

Regarding the identification of resources the investigator noted that the membership of the

Installation Health Promotion Council was specified by the Army Health Promotion Program regulation. The suggested membership is listed in figure 6. These members are considered critical, as they represent a broad spectrum of the staff that manages resources applicable to the health promotion program. Using this information as guidance, the USMA Organization and Functions manual was reviewed and the researcher developed the USCC Health Promotion Resource Model found at Appendix A. This model is intended to highlight those community resources that are currently available which may be incorporated into a comprehensive health wellness program for the USCC at the USMA.

The USCC Health Promotion Resource Model lists those USCC-specific staff positions, and their related functions, as they may apply to a health promotion program. The model further matches these functions to the appropriate elements of the Army Health Promotion Program and have been labelled as either primary areas of concentration (PAOC) or secondary areas of concentration (SAOC). The areas of concentration are intended to mirror the intent of the Army Health Promotion Program. It should be noted that the order in which they are currently listed in this matrix do not necessarily imply preferential rank ordering for the purposes the regulation. Rather, they reflect the

SUGGESTED COMPOSITION OF HPC

- MEMBER OF THE COMMAND GROUP (CHAIR)
- DIRECTOR, PERSONNEL AND COMMUNITY ACTIVITIES
- COMMANDER, MEDICAL TREATMENT FACILITY
- DIRECTOR, MORALE SUPPORT ACTIVITIES
- PUBLIC AFFAIRS OFFICER
- POST FOOD ADVISOR
- POST LIBRARIAN
- COORDINATOR, FAMILY ADVOCACY PROGRAM
- COORDINATOR, CHILD SUPPORT SERVICES
- FIELD DIRECTOR, AMERICAN RED CROSS
- CHAPLAIN
- ALCOHOL AND DRUG CONTROL OFFICER
- SAFETY OFFICER
- MASTER FITNESS TRAINER (UNIT)
- SOLDIER AND FAMILY FITNESS COORDINATOR (CFSC)
- G-3 AND G-4 REPRESENTATIVES

o CPO

Fig 6. Suggested Composition of the Health Promotion Council adapted from United States. Dept. of the Army. The Adjutant General, Army Health Promotion Program, (Washington: GPO, 1987) 6.

priorities the Commandant of Cadets should consider based upon the general tendencies of the target population.

Primary areas of concentration (PAOC) were chosen based upon the elements of the Army health promotion program and the Surgeon General's seven major preventable non-disease causes of poor health, injury, or death in the target population. Thus, the model developed for the USCC retains some of the same elements provided for in the Army guidance while, at the same time, it serves to emphasize the unique target population characteristics of the USCC.

The secondary areas of concentration (SAOC) are incorporated because there is "good evidence that many causes of death at age 40 are the result of behaviors established during the adolescent and young adult years" (Hettler, 209-10). Likewise, the Surgeon General states that "although chronic diseases are not among the major causes of death (for the target population)...the lifestyles and behavior patterns which are shaped during these years may determine later susceptibility to chronic diseases" (Healthy People, 43). In Faber's words, since "many of the chronic diseases are life-style induced, the patient needs to become involved in health maintenance well before the appearance of any symptoms" (341).

Thus, health promotion requires an integrated, total life span approach. If this were not so then one could potentially win the battle of their target population goals (i.e., reduce accidents and suicides), but lose the war later in the life cycle, due to a failure to focus on the impact of one's current lifestyle choices and actions on subsequent health outcomes (i.e., personal nutritional choices). Conversely, it would mean little to ensure healthy dietary habits which would reduce the risk of heart disease, if the individual failed to take the proper precautions necessary to reduce the risk of a motor vehicle accident (i.e., failure to wear a seatbelt). At this juncture, it is appropriate to present some pertinent facts supporting why elements were selected as either primary areas of concentration (PAOC) or as secondary areas of concentration (SAOC).

PRIMARY AREAS OF CONCENTRATION

(1) Safety and Accident Prevention--Although neither safety nor accident prevention are addressed in the Army Health Promotion Program, they are essential components for this target population. The behavior patterns referred to earlier include "judgmental errors, aggressiveness, and in some cases, ambivalence about wanting to live or die" which result

in greater risk taking (Objectives for the Nation, 43). These behavior patterns, coupled with a motor vehicle, result in the need to prioritize safety and injury control. For instance, in 1977, motor vehicle accidents were the leading cause of mortality in the 15 to 24 year old group, accounting for 37 percent of all deaths for this age. Viewed differently, members of this age group are twice as likely to die in a traffic accident as are drivers 25 years old or older. Finally, highlighting the need to focus on this PAOC, for the target population discussed, is the fact that the motor vehicle accident (MVA) fatality rate climbed from 39.2 deaths per 100,000 in 1975 to 46.1 deaths per 100,000 in 1978 (Objectives for the Nation, 45).

(2) Alcohol and Drug Abuse--Alcohol and drug abuse have major impacts in many areas. Not only does abuse increase an individual's risk of a MVA, they also contribute "to poor school performance" and have a potential for leading to long-term chronic disease. Specifically, "alcohol-related accidents are the leading cause of death" for this target population (Objectives for the Nation, 46). It is no wonder as nearly 80 percent of 12 to 17 year olds reported having a drink and "more than half drink at least once

a month". Likewise, 60 percent of 18-25 year olds reported having "tried marijuana".

However, the affects of alcohol and drugs are not limited to MVAs. It has been reported that "an undetermined portion of deaths and medical emergencies relate to drug use for suicide and attempted suicide" for this target population as well (Objectives for the Nation, 63).

(3) Antitobacco Counselling--Smoking, is "the single most important preventable cause of death and disease". Though the share of the population who smoke declined for the country as a whole, "the declines have not been great among adolescents and there have been increases in the rates for 17 and 18 year old women" (Objectives for the Nation, 61).

(4) Suicide Prevention--The exact causes of suicide are unclear. Certainly society's expectations exert a great deal of pressure on this age group. This pressure may manifest itself in the fact that suicide is "the third leading cause of death among teenagers and young adults" with those at highest risk being "people who are severely depressed and those at odds with themselves and the people close to them" (Objectives for the Nation, 50-51).

(5) Spiritual Wellness--A foundation can be either established or strengthened during the period cadets are at the USMA to help individuals cope with the many societal expectations of them while at West Point (as well as the normal stress and demands related to attending college).

(6) Stress Management--Although some stress may be beneficial, "stressful conditions can result in substantial dysfunction". In fact, "unmanaged stress plays a major role in suicides and homicides" which are leading causes of death for this target population (Objectives for the Nation, 83).

(7) Human Sexuality Issues--A major underlying problem for this age group is the inadequate knowledge of and access to information on sexual behavior and family planning services" (Objectives for the Nation, 48). Gonorrhea, syphilis, and other sexually transmittable diseases account for "an estimated 12 million cases of sexually transmitted diseases a year" with the greatest risk of acquiring them occurring among young people (Objectives for the Nation, 49).

SECONDARY AREAS OF CONCENTRATION

(1) Physical Fitness--It is clear that there

are substantial benefits, both physical and emotional, direct and indirect, from regular exercise. Despite this fact, only about "a third of children and adolescents are estimated to participate in a daily physical education program" (Morris, 86).

(2) Nutrition and Weight Control--"Issues related to nutrition and food consumption involve complex interactions among social, cultural, economic, and physiological factors" (Objectives for the Nation, 73). Additionally, poor nutrition, such as a high-salt diet, is related to hypertension and a high-fat diet is related to coronary heart disease. In short, failure to actively improve in this area will in all likelihood have lasting long term consequences.

(3) Hypertension--This is considered a secondary area of concentration because, although it is related to stress which is a primary area of concentration, its impact is generally manifested later in life. The impact of other actions which may cause hypertension, such as poor nutrition, have been previously addressed.

(4) Oral Health--"Dental screening is important and all adolescents should continue to be seen at

approximately 6-month intervals" (Morris, 104). "Due to ingestion of frequent high sugar snacks, caries appear in increased numbers during adolescence" (Morris, 97).

The researcher also developed the USMA Health Promotion Resource Model which may be found at Appendix B. The PAOC and SAOC were purposely listed in the same order as they were listed in the USCC matrix model. By so doing, the models stress the interaction between those resource elements unique to the USMA and those resource elements unique to the USCC.

In short, these models were designed to serve as start points upon which to build rather than as end points that are directive in nature. The intent of the models is to assist the HPC in identifying existing resources at West Point that are capable of supporting a dynamic and integrated health promotion program. It is reasonable to expect that the membership of the HPC will find these models useful in directing organizational elements having similar functions to work together in the development of a program for the USCC target population. The synergism that might result could potentially reduce redundancy and will serve to achieve the common goal of health promotion for the Total Army Family.

With the resources identified and the areas of

concentration prioritized there was then a need to establish goals and objectives for the USCC program.

Goals and Objectives

It would be premature for the researcher to explicitly state what the actual, detailed goals and objectives for the HPC should be as they apply to the USCC. However, the criteria by which goals and objectives could be established by the USCC are addressed in a broad, general sense.

(1) The goals and objectives should not be so limiting as to stifle action on the part of the individual because "a high proportion of values and influences always remains hidden until implementation is undertaken, and the multiplicity of such influences makes any prediction of reaction hazardous" (Blum, 532). Thus, broad goals and objectives act as "trial balloons" just as the rhetoric before an election is designed to "test the reactions to tentative approaches" (Blum, 532).

(2) The goals and objectives should be designed as a guide for the individual rather than as a directive. The reason for this can best be described using a model developed by Blum. The model in figure

7 describes the relationship of a change agent (in this case the HPC) with the target population (members of the USCC). On the far left hand side of the figure the change agent has a strong role in carrying out something already authorized. Moving toward the right, the change agent has a strong role in suggesting certain things be carried out. Regarding the specific task at hand, the authority (an Army Health Promotion Program regulation) coupled with the regimentation of the target population (the USCC) implies the enforcement-obedience dichotomy depicted on the far left of the figure. However, when the change that is sought pertains to personal services requiring personal initiative, the change agent must "hope to motivate the target person...so that he comes to believe in and carries out a particular health behavior desired" by the change agent (Blum 533). In short it is necessary for the change agent to establish broad goals and objectives that set a direction for the individual to pursue.

(3) Finally, the goals and objectives should be reasonable, achievable, and measurable. This supports the current literature which, as stated in Chapter 1, emphasizes the need "to define objectives of programs to improve" health (Fielding, 4). By so doing, the HPC will have a method of evaluating the program.

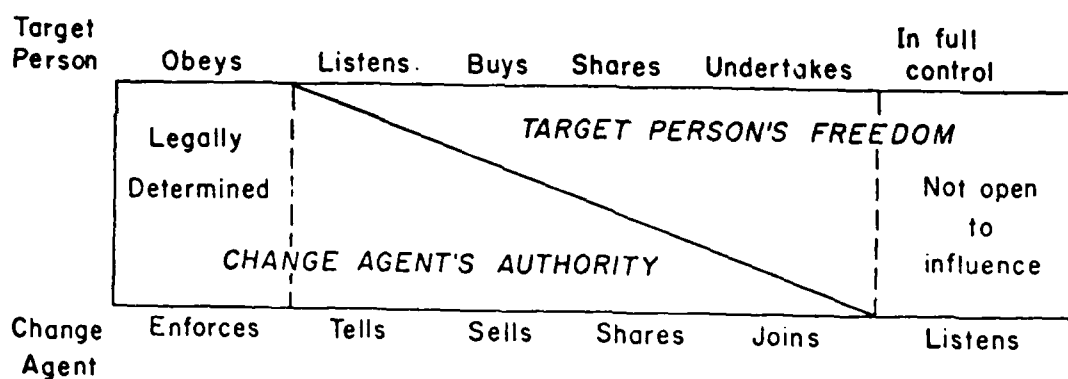


Fig 7. Change Agent Model from Hendrick Blum, Planning for Health, (New York: Human Sciences Press, 1974) 532.

(The evaluation stage will be expanded upon following a discussion of the execution stage of the model.) At a minimum, the overall goals should help the members of the USCC understand the major causes of disease, accidental injury, and death, make them aware of those factors which are hazardous to their health, help them to make the choices they should make to eliminate--or at least to reduce--those hazards, and show individuals how to use the health care system properly to become informed, active partners in their own health care and maintenance.

Once the HPC formulates specific goals and objectives it will be up to a Fit-To-Win Coordinator to facilitate the HPC's initiatives and to "ensure the effectiveness of the overall program" (AR 600-63, 8). However, even the best laid plans of the HPC will be doomed to failure if the implementation phase of the process itself is not well planned, comprehensive, and executed in a unified fashion.

Executing:

Program Implementation

There are many methods which can be considered in implementing a program. To provide a long litany of approaches regarding implementation would be fruitless. The five representative items offered

below certainly do not exhaust the realm of possibilities. Rather they serve as examples of the many avenues that may be effective in implementing a health promotion program for the members of the USCC.

(1) Use of the chain-of-command: By using the chain of command a signal is sent to the members of the USCC that health promotion is an important component in their professional development. By making the tenets of health promotion a specific goal on the Officer Efficiency Report Support Form, (for instance the Regimental tactical officer's) the "incentive" would be in place to emphasize wellness to the members of the USCC.

(2) Leadership: The leadership of the USCC must emphasize the importance of "maintaining the human weapon system" and implore the members of the USCC to practice sound lifestyles based upon the areas of concentration discussed (Wolcott, personal interview). This may be done by communicating thoughts on health promotion in the cadet daily bulletin, the cadet radio station, or in formations to mention but a few possibilities.

(3) Peers: Recalling the influence of peers, the current peer counselor system within the USCC

would be another avenue of approach in implementing the goals and objectives of the health promotion program. According to Bandura "new behaviors tend to originate...from exposures to powerful models; that is attractive or prestigious individuals" (Bandura, 46.) Briefly, the cadets chosen to be peer counselors are noted for their caring attitude and leadership. Thus, they are not only motivated to encourage their fellow cadets but they serve as influential role models as well.

(4) Education: This component currently exists at the USMA. As an example, the USCC is currently taught about human sexuality issues ranging from sexually transmitted diseases to information on self examinations for breast or testicular cancer. It is imperative that the USMA continue to emphasize health education as a part of the USCC curriculum as "the academic programs of most colleges and universities could be enhanced by wellness promotion efforts" (Hettler, 210).

(5) Health Risk Appraisal: Another effective tool is the use of a Health Risk Appraisal (HRA) as the individual's awareness about health promotion is "increased by the content of the health hazard appraisal questionnaire" (Dunton, 307). A specific

evaluation of the HRA as it applies to college students found that "even though it may not change personal health behavior, it may change behavior in terms of entering specific health programs where more effective behavior change modalities could be implemented" (Wilson and Wingender, 30). Neff and Landrum found that completing a HRA "may force people to make negative conclusions about their own actions, and may promote a private, voluntary decision to change" their behavior (4).

In short, these five methodologies, coupled with the results of the planning and programming stages in the model presented, lay the groundwork for the evaluation phase.

Evaluating:

Ongoing Monitoring and Evaluation

Even though this is the fourth and final stage presented in the model, it does not imply an end. In fact, the purpose of the evaluation stage is to test the work performed in the previous stages as well as to act as a foundation for beginning another iteration of the model. In other words, it is at this stage that the HPC can gather data that will assist them in the monitoring of and determining the successes and the failures of their proposed programs.

For the purposes of the USCC, the evaluation of their programs would be served by the aggressive implementation of a HRA for the members of the USCC. By conducting an initial HRA, the HPC would establish a baseline that is more definitive than the target population analysis proposed earlier. Then following the implementation of developed programs, the HPC could again gather data using the same HRA survey instrument and compare the newly acquired information with the baseline information. Furthermore, the HRA could be supplemented with other survey instruments designed to target certain wellness issues. (For instance, the Substance Abuse Subtle Screening Inventory which assesses chemical dependency.) In any case, information collection is critical "because the information is used not only for planning services and activities but also for planning promotional efforts" (Longe and Wolf, 25).

In sum, the degree to which the HPC chooses to evaluate the programs developed depends upon what they want to learn from the information collected, the financial resources available for information gathering and evaluation, and the time allowed to collect the information. At the very least they should "look at the statistical base about the community or targeted segments" as they perform functions within the evaluation stage (Longe and Wolf, 32). In essence, when the model is used as it

is intended, an "iterative cycle" will occur similar to Blum's model, which is duplicated in figure 8 (Blum, 542). Having developed the model presented and explaining the various components contained therein it is appropriate to discuss the advantages and disadvantages of the model followed by an overview of the criteria established for this study, recommendations, and concluding remarks.

First, the target population is emphasized. Thus, the decision-makers (members of the HPC) can see what priorities should be set for the USCC, in contradistinction to priorities they may choose for other target populations for which they will also be responsible. This is important, as members of the HPC will approve the development and implementation of health promotion programs for the Total Army Family, as well conducting the ongoing monitoring and evaluation of all programs.

Secondly, the model provides latitude in implementation. By providing a list of primary and secondary areas of concentration in the USCC and USMA Health Promotion Resource Models, the HPC can choose what to emphasize. Based upon their choices, they will be encouraged to establish short and long term goals and objectives for each area of concentration.

Thirdly, the health promotion resource models, as a part of the health promotion program management

ITERATIVE CYCLE OF PLANNING—IMPLEMENTING— EVALUATING

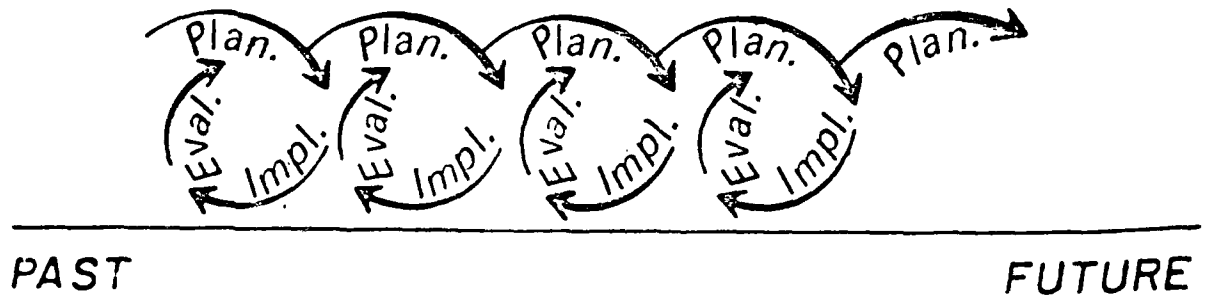


Fig 8. Iterative Cycle of Planning from Hendrick Blum, Planning for Health, (New York: Human Sciences Press, 1974) 538.

process model, will be educational tools to both the members of the HPC as well as to the members of the USCC. The members of the HPC can see the emphasis on the target population and the members of the USCC can use these models as templates to see what areas need to be improved upon both as leaders within the USCC chain-of-command as well as individual members of the USCC.

Finally, the model recognizes that health promotion is a dynamic, multi-faceted, ongoing process. Thus, the model is designed to be flexible rather than directive. It is not, and never has been, the intent of the researcher to provide an all-inclusive guide for the HPC, but rather to develop a useful tool that may be used and changed as the members of the HPC see fit. It is this last point that highlights the model's potential disadvantages.

First, the information on the age group that comprises the members of the USCC is quite broad. Thus, certain sub-characteristics of the specific target population may not be fully addressed in the planning phase, due to the lack of specific information within the aggregated data of the age group. The second major criticism may be that the model is in no way exhaustive. This was in keeping with the intent of the researcher, as the model is a tool to be used in managing the on-going dynamics of

health promotion. It provides the HPC with a systematic methodology in determining the needs of the target population.

In sum, the model that has been developed is seen as a useful tool for the HPC in providing an implementable health promotion program for the USCC. It will ultimately be up to these representatives of the HPC to identify existing health promotion programs, and integrate MTF programs with other health promotion programs, as well as to perform an assessment of the strengths and weaknesses of the health promotion programs.

In short, the USCC Health Promotion Program Management Process Model (figure 5 on page 23), the USCC Health Promotion Resource Model (Appendix A) and the USMA Health Promotion Resource Model (Appendix B) are intended to provide the members of the Installation Health Promotion Council a sound methodology as well as a clear and concise picture of those elements serving at West Point that are critical in addressing the health promotion program. This brings us to an overview of the established criteria of this study, followed by recommendations and concluding remarks.

Overview of Criteria

Before continuing, let us return to the criteria established in Chapter One and discuss briefly how they apply to the health promotion program management model presented in this chapter.

The first criterion stated that any requirements and standards for the proper development of a wellness program as prescribed by the JCAHO must be met. As previously discussed, the JCAHO does not specifically address health wellness programs. In other words, the JCAHO offers no guidelines for the development of a health promotion program, per se. However, it was determined by researching the JCAHO standards that various areas emphasized by the JCAHO must be met once a program is implemented. For example, the results of the HRA become a part of the medical documentation of the patient and therefore must be filed in the appropriate patient medical record in a timely fashion and respect the patient's right to privacy. Likewise, when blood is drawn to determine the patient's cholesterol level, the same JCAHO infection control standards apply. In short, albeit the JCAHO does not specifically address health promotion programs directly, the medically-related aspects of a health promotion program are under the same JCAHO scrutiny and standard of care expected of a health care

facility.

The second criterion stated that the requirements and standards for the proper implementation of a wellness program as prescribed by HSC, the OTSG, the DA and the DoD must be met. Unfortunately, the requirements and standards of the aforementioned agencies could not be measured since the USCC has neither an ongoing viable HPC nor a health promotion program. However, the approach taken in this paper was to develop a systems management model which assumes a dynamic, ongoing process for the development, monitoring, and evaluation of an USCC health promotion program.

Since, at this point in time, the USMA is still in the developmental stages of a health promotion program, it is imperative that the USMA meet the standards and requirements established by pertinent governing regulations. For example, the members of the HPC must ensure that the intent of AR 600-63 is met.

Likewise, as the HPC formulates an agenda and strategic vision for the health promotion program, it would behoove the West Point MEDDAC Commander to execute those responsibilities previously described. In fact, the West Point MEDDAC is actively involved in creating a foundation for a community health promotion program. For example, it is anticipated that in

February 1989 the West Point MEDDAC will have a Defense Management Information System Patient Appointment and Scheduling system. This system will be linked to an interactive database which will have patient information. Included in this database will be a data field which will note whether or not the patient has had a health risk appraisal.

Criterion three stated that implementation directives and guidelines should adhere to requirements of the military and the JCAHO. Regarding this criterion, as the West Point Community has yet to establish a health promotion program, there is currently an absence of implementation directives, SOPs, and guidelines on such a program. However, the current Fitness Facilitator for the Army Health Promotion Program (the Community Health Nurse) is aware of the need to ensure all regulatory guidelines are met.

It is important to note that supplementation of AR 600-63 "is encouraged to tailor health promotion to the local command" (1). However, HSC Regulation 40-27 HSC Support of the Army Health Promotion Program, states supplementation is prohibited without prior approval from HQ, HSC. Thus, there exists an internal inconsistency which must be addressed.

Criterion four stated that the proposed program management process model should be acceptable to the

post-level Health Promotion Council. However, since the post-level HPC has yet to meet, this criterion could not be determined to be either acceptable or unacceptable.

Finally, criterion five states that the USCC health promotion program process model must be implementable and not require extensive use of resources. Again, as the HPC has not met, it can not yet be determined if the model is implementable or not. This is up to the HPC to determine. Notionally, the USCC health promotion program process model is a management process model. It is descriptive of the actions deemed necessary in creating a viable, meaningful, and ongoing health promotion program for the members of the USCC. This model, coupled with the resource model matrices at Appendix A and B, creates a solid foundation upon which to build a health promotion program for the USCC. Let us now turn to the specific recommendations based upon this research.

III. RECOMMENDATIONS AND CONCLUSION

Recommendations

Certainly, as stated earlier, the model is not exhaustive. This was purposeful, as the concept was to provide the HPC with a starting point and a broad and general framework, rather than a final product. With this in mind, the following overview of criteria, recommendations, and concluding remarks are offered.

Recommendation 1: Use of Health Risk Appraisal

The Army Health Promotion Program, has approved the use of a Health Risk Appraisal (HRA) as the assessment tool in the implementation of the health promotion program throughout the Army. The particular HRA is based upon the University of Rhode Island program. Although there are flaws stated in the literature concerning the use of such an instrument for a younger population, it is a generally accepted tool for establishing a baseline of information; a start point if you will. An example of the Army HRA questionnaire may be found at figure 9.

Essentially, the HRA uses focused questions designed to determine certain risk factors and when

22-230 U. S. ARMY WELLNESS CHECK (version 2.0)

Directions: Please mark ALL your answers on the ANSWER CARD provided. Use a No. 2 pencil only. Mark in the square completely, and enter any, any mark, up. Please answer EVERY question, but give only ONE answer per question.

1. How often do you eat two well-balanced meals per day? (1) daily or almost daily (2) 3 to 5 days a week (3) less than 3 days a week (4) rarely or never	15. In a typical week, how many days do you have at least one drink of alcohol (beer, wine, or liquor)? (1) "I don't drink." (2) 6 or 7 days per week (3) 3 to 5 days per week (4) 1 or 2 days per week (5) not even 1 day every week	29. In the last year, have you (or your family member) been separated from your home base for more than three weeks at a time? (1) yes (2) no	43. MARITAL STATUS: Are you currently— (1) married or living as married (2) separated & not living as married (3) divorced & not living as married (4) widowed & not living as married (5) single, never married (6) not living as married																				
2. How often do you eat foods high in saturated fats such as beef hamburger, pork sausage, butter, whole milk, cheese, etc.? (1) daily or almost daily (2) 3 to 5 days a week (3) less than 3 days a week (4) rarely or never	16. In a typical week, how many drinks do you usually drink? (1) "I don't drink." (2) 4 or less (3) 5 to 10 drinks a week (4) 11 to 20 drinks a week (5) 21 to 30 drinks a week (6) more than 30 drinks a week	30. Have you been informed in the last 5 years that either your blood pressure was high or borderline high? (1) no (2) yes, borderline (3) yes, high	44. ELIGIBILITY STATUS: Are you— (1) active duty military (but not in basic/advanced training) (2) active duty military in basic or advanced training (3) family member of active duty service member (4) retired military (5) civilian employer/federal employee (6) other																				
3. How often do you eat foods high in salt or sodium such as cold cuts, bacon, canned soups, potato chips, etc.? (1) daily or almost daily (2) 3 to 5 days a week (3) less than 3 days a week (4) rarely or never	17. When driving or riding in a personal vehicle, how often do you wear seatbelts? (1) always/always (2) sometimes (3) rarely or never	31. Are you now being treated for high blood pressure? (1) yes (2) no	45. ACQ: Write your age in the box on the answer card, for example for twenty years of age write 20 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
4. How often do you eat high fiber foods such as whole grain bread, cereal, bran, raw fruit, or raw vegetables? (1) daily or almost daily (2) 3 to 5 days a week (3) less than 3 days a week (4) rarely or never	18. Do you ever drive after you've been drinking? (1) no, never (2) yes, but only rarely (3) yes, almost every time I go drinking (4) yes, almost every time I go drinking	32. What is your blood cholesterol level? (1) under 200 mg% (2) 200 to 249 mg% (3) 250 to 299 mg% (4) 300 mg% or higher	46. MILITARY GRADE: Write your grade in the box on the answer card, for example for E-1 write 1 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
5. On the average, how many hours of sleep do you get each night? (1) less than 5 hours (2) 5 to 6 hours (3) 6 to 7 hours (4) 7 to 8 hours (5) more than 8 hours	19. Do you ever ride with a driver who has been drinking? (1) no, never (2) yes, but only rarely (3) yes, almost every time I go drinking (4) yes, almost every time I go drinking	33. Have you had discomfort above the waist (chest, shoulder, neck, jaw, arm pain, pressure, tightness) that starts from exertion but goes away with rest? (1) yes (2) no	47. HEIGHT: Write your height in the box on the answer card, for example for 6 feet and 8 inches, then write 68 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
6. How often do you do at least 30 minutes of non-stop aerobic activity (vigorous exercise that greatly increases your breathing and heart rate such as running, fast walking, biking, swimming, rowing, etc.)? (1) 3 or more times a week (2) 1 or 2 times a week (3) rarely or never	20. In the past two years have you been licensed for speeding or any other moving violation? (1) yes (2) no	34. Do you do reticulocyte self-exam (urine) or breast self-exam (monthly)? (1) no (2) yes, occasionally (3) yes, at least monthly	48. WEIGHT: Write your weight (without clothes) in the box on the answer card, for example if you weigh 175 lbs, then write 175 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
7. How often do you do exercises that improve muscle strength, such as sit-ups, push-ups, weight lifting, a Nautilus/Universal workout resistance machine, etc.? (1) 3 or more times a week (2) 1 or 2 times a week (3) rarely or never	21. In the last year, have you had a serious personal loss or misfortune (for example, promotion, promotion, divorce/separation, death of a family member, death of a friend, death of someone close, serious illness/injury of a loved one, etc.)? (1) yes (2) no	35. Have any of your close blood relatives (parent, grandparent, brother, or sister) had a heart attack before age 60? (1) no (2) yes	49. FOR PERSONNEL DURING PHYSICAL EXAM ONLY: (Completes only with the guidance of health care personnel) 2-1. What was the result of your urinal test? (1) negative for sugar (2) positive for sugar 2-2. What was your blood sugar measurement? (1) less than 120mg% (2) greater than or equal to 120mg% 2-3. What was the result of your electrocardiograph (ECG)? (1) LVN positive (2) LVN negative (3) other findings positive																				
8. Do you have a physical condition that limits or prevents you from exercising? (1) yes (2) no	22. Have you experienced a major pleasant change in the past year (for example, promotion, marriage, birth, award, etc.)? (1) yes (2) no	36. Have any of your close blood relatives (parent, grandparent, brother, or sister) had diabetes? (1) no (2) yes	50. BLOOD CHOLESTEROL: Write your blood cholesterol level in the box on the answer card, for example if your measurement was 150 then write 150 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
9. Do you smoke cigarettes now? (1) yes (2) no, "I quit in the last 6 months" (3) no, "I quit over 6 months ago" (4) no, "I never smoked"	23. Do you have trouble going to sleep and do not rest well? (1) yes (2) no	37. Have any of your close blood relatives (parent, grandparent, brother, or sister) had high blood pressure before age 60? (1) no (2) yes	51. BLOOD PRESSURE: Write your blood pressure measurement (both systolic & diastolic) in the box on the answer card, for example if your measurement is 120/80 then write 120/80 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
10. How much do you smoke? (1) "I don't smoke" (2) less than a half-pack a day (3) one to one pack a day (4) two or more packs a day	24. In the past year, have you experienced repeated or long periods of depression? (1) no (2) yes, sometimes (3) yes, often	38. 5A: What is your sex? (1) male (2) female	52. DIABETES: Write your blood pressure measurement (both systolic & diastolic) in the box on the answer card, for example if your measurement is 120/80 then write 120/80 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
11. How long have you smoked? (1) "I don't smoke" (2) less than 1 year (3) 1 to 4 years (4) 5 to 10 years (5) more than 10 years	25. Are there people you return to for support in bad moments or illness? (1) yes (2) no	39. 5B: What is your age? (1) no (2) yes	53. SPYGLASS: Write your blood pressure measurement (both systolic & diastolic) in the box on the answer card, for example if your measurement is 120/80 then write 120/80 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
12. Do you want to stop smoking? (1) "I don't smoke" (2) "I would like to quit now" (3) "I would like to quit someday" (4) "I don't want to stop smoking"	26. Have you seriously considered suicide at least once in the last two years? (1) yes (2) no	40. Females only: Have you had a Pap test in the past two years? (1) yes (2) no	54. SPYGLASS: Write your blood pressure measurement (both systolic & diastolic) in the box on the answer card, for example if your measurement is 120/80 then write 120/80 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
13. How often do you smoke a pipe or cigar? (1) never (2) less than daily (3) daily	27. Have you seriously considered suicide at least once in the last two years? (1) yes (2) no	41. Females only: Have you had a breast examination in the past year? (1) yes (2) no	55. SPYGLASS: Write your blood pressure measurement (both systolic & diastolic) in the box on the answer card, for example if your measurement is 120/80 then write 120/80 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														
14. How often do you use smokeless tobacco such as chewing tobacco or snuff? (1) never (2) less than daily (3) daily		42. Females only: Do you take birth control pills? (1) yes (2) no	56. SPYGLASS: Write your blood pressure measurement (both systolic & diastolic) in the box on the answer card, for example if your measurement is 120/80 then write 120/80 in the box for the above example, here is a properly marked card: <table border="1"><tr><td>0</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr><tr><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td></tr></table>	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
0	1	2	3	4	5	6	7	8	9														
10	11	12	13	14	15	16	17	18	19														

Fig 9 U.S. Army Wellness Check from United States. Dept of the Army. (Washington: GPO, 1987)

completed, provides an initial assessment of the relative magnitude of these risk factors as compared to the statistical database of the HRA. Then, based upon statistical probabilities, the computer generates a focused and relative risk assessment for each respondent. (A copy of the results of the researcher's HRA can be found at Figure 10.)

Recommendation 2: Implementing the HRA

Under the current Army program, the HRA is to be conducted "as part of the ongoing periodic physical examination" (AR 600-63, 7). Again, as the regulation does not specifically cover members of the Corps of Cadets, the method of conducting the HRA must be addressed. I recommend the HRA be initially conducted as a part of the in-processing of new accessions to the USCC or as a part of the pre-admission physical. Essentially, this would be in addition to the newly added requirements of alcohol and drug testing for new members of the USCC per the directive of the Chief of Staff of the Army. Further, based upon the results of the HRA, all cadets would be provided general information during a class provided to them during their plebe year of Cadet Basic Training. In addition to this class, they would be

CATEGORY	SCORES	YOUR SCORE	COMMENT
Little or No Risk	90-100		
Slightly Risky	80-89	88	YOU'RE CLOSE - TRY HARDER
Risky	65-79		
Very Risky	50-64		
Extremely Risky	under 50		

* Continue eating balanced meals with moderation in fat and salt along with adequate fiber.

* Eating high fiber foods greatly reduces your risk of certain cancers. Fiber should be part of any balanced diet. Examples of high fiber foods are: wholegrain cereals and breads, fruits, and some vegetables like peas and beans.

 * YOUR BODY NEEDS ONLY 20 MINUTES OF AEROBIC EXERCISE 3 TIMES A WEEK. NEGLECTING EXERCISE HAS HIGH PERSONAL COST. (To be aerobic, an activity must increase your breathing and heart rate for 20 continuous minutes. Examples are: walking, biking, swimming, or running.)

* By not smoking, you 'FIT-IN' in today's Army, and are among the majority of Americans choosing not to smoke. By never smoking, you have avoided THE number one preventable cause of illness and death.

* You reported a lot of potential stress. Not all stress is harmful, but if it is causing problems for you, find ways to slow down, relax, and talk it over. Remember, help is available.

* It is important to have someone to turn to for support when faced with illness or other serious problems. You are fortunate to have this kind of help. Maintaining this type of relationship is essential to your overall well being.

* Hypertension (high blood pressure) is a very serious lifelong condition. Since you fall into the 'borderline' category, you should monitor your blood pressure regularly and follow your doctor's suggestions concerning exercise, diet, weight control, etc..

* Since cholesterol is an important indicator of health, you are to be congratulated on both knowing your level and on having a reading in the ideal range (below 200). You can keep it at a safe level by limiting fat and cholesterol in your diet and by exercising regularly.

* You are not taking proper precautions against testicular cancer. By practicing testicular self-examination, your chances of discovering a problem early (while it can be treated effectively) are greatly increased.

YOU PERFORMED WELL IN THE FOLLOWING AREAS: * Tobacco Use
 * Drinking
 * Seatbelt Use
 * Cholesterol

-----> HELP YOURSELF TO HEALTH <-----

<< Wellness Check DOES NOT replace an evaluation by a physician. >>

* DA FORM 2005 PRIVACY ACT STATEMENT APPLIES; HSC FORM 500-63-E-R (TEST) 1 MAR 87 *

AGE GRADE HEIGHT WEIGHT
 31 03 5 9 175

Fig 10 U.S. Army Wellness Check Results from United
 States. Dept. of the Army. (Washington: GPO, 1987)

provided a list of support agencies on post where they could seek more information.

It is important that any specific information desired be provided in confidence, as the HRA is a self-reporting survey instrument. If the HRA is viewed by the user as a method for identifying potential abusers of drugs and alcohol with subsequent punishment of the individual, then the respondent will not be honest in her/his answers.

Additionally, I recommend, as a long-term goal, consideration be given to incorporating the HRA into the USCC Cadet Barracks Local Area Network (CBLAN). Currently, all members of the USCC are "on-line" with a mainframe computer at the USMA. Potentially, then, the HRA questionnaire could be voluntarily accessed by cadets. Again, based upon the computer-generated results of the HRA, (similar to the computer generated results shown in figure 10 on page 65) the cadet would be afforded the opportunity to query a menu-driven database that contained more detailed information on a range of potential topics of interest.

If this CBLAN network concept were adopted, then the Commandant of the USCC could have an established protocol and methodology that could create longitudinal data. While ensuring anonymity, the data could be collected and analyzed to determine the progress of the members of the USCC who had queried

the HRA menu. Examples of such an analysis, as it is generated from the HRA software program, are shown in Appendix C.

Recommendation 3: Other assessment tools

If the CBLAN network concept is to be adopted, then other methods of seeking information on the members of the USCC could be incorporated into the CBLAN as well. Although it is beyond the scope of this paper to provide an exhaustive review of other potential survey instruments to be used in conjunction with the CBLAN, it may be appropriate to provide an example of another survey tool that is available. Since the HRA is a self-reporting instrument that can potentially be answered so as to present the best possible picture of the respondent, then consideration may be given to using other, more unobtrusive survey instruments in addition to the HRA.

As an example, Cooper and Robinson conducted a study of entering freshmen at a midwestern university (with an average age of 18 years old). Using a Substance Abuse Subtle Screening Inventory (SASSI) developed to assess chemical dependency they found "the SASSI shows definite potential as a short, inexpensive assessment tool that can differentiate among chemical abusers [and] social drinkers,

independent of the respondent's level of honesty in answering the questionnaire" (183).

In short, the SASSI could potentially act as a cross-validation of the HRA, and based upon Cooper and Robinson's initial findings, may prove useful "for detecting chemical dependency in college students" (182).

Other sources of data on the target population that may be useful could be derived from the PatientAdministration System and Biostatistical Activity or by conducting focused group studies with representative samples of the membership of the USCC.

Recommendation 4: Regulatory changes

I recommend AR 600-63 be changed to specifically address the cadet members of the USCC and should add Safety and Accident Prevention as specific elements in the regulation. Secondly, the USMA Organization and Functions manual should specifically address the functions of the MEDDAC Commander and the DENTAC Commander as members of the installation Commander's special staff. Finally, the installation Directorate of Personnel and Civilian Activities should seek the creation of and approval of a supplement to the Army Regulation that tailors health promotion to the local command needs. This supplement should address the

specific needs of the cadet members of the USCC since they are the primary mission of the USMA.

Recommendation 5: Health Promotion Council Actions

As the USMA HPC has not yet met, the researcher was unable to present the developed models to the members of the HPC. However, the HPC should consider the models as developed, keeping in mind the dynamics and challenges involved in starting a health promotion program.

Although it is beyond the scope of this thesis, it would behoove the HPC to place the same emphasis on, and use the same process in, the development and implementation of like models for other target populations. Keeping in mind that the function of a university "is to provide an atmosphere and physical environment in which the students have an opportunity to improve their knowledge, skills, and attitudes" the HPC must strive to apply this function to health promotion (Hettler, 208).

Conclusion

A conclusion implies an ending. It is difficult to talk about an ending when the purpose of the paper was to act as a beginning by developing a model for an

implementable health promotion program. The models were not designed to be either all-encompassing or a detailed solution for the USCC in establishing a health promotion program for the Corps of Cadets. Rather, the intent was to act as a catalyst. It is felt that the health promotion program management process model, along with the resource models, accomplished this. As the developed management model is a systems model, it does not in itself meet the requirements that are prescribed by regulations. However, the need to ensure compliance with established guidelines was emphasized throughout the course of the paper. Efforts were made to specifically address, at appropriate times, various pertinent requirements. In short, the systems model is designed to act as a catalyst of action for the HPC. It is up to the members of the HPC to ensure the letter and the intent of regulations are carried out.

Certainly, studies such as this one uncover more questions than answers. Despite this, there is hope that some substantial information will be contributed to the field. By seriously considering the models presented and implementing the recommendations offered herein, the HPC will be starting a process that will provide students with opportunities to learn about the benefits of increasing their wellness activities and will create an environment that encourages the members

of the USCC to pursue the wellness lifestyle.

The investment of resources into such an undertaking is no guarantee that the program will have any effect at all. One view is that "people are not nearly so interested in self-protection" as one might like to think (Weinstein, 276). In spite of this view, in an imperfect world, one can not afford to wait for perfect solutions. Whether this model and the proposed recommendations will create positive change remains to be proven. Ultimately, people will influence people. Why not try to make things better?

Appendix A

The USCC Health Promotion Resource Model

ORGANIZATIONAL ELEMENT FUNCTIONS

FUNCTIONS

- Plans, directs, and administers courses in the subject area of physical education.

- Plans, directs, and administers courses in the subject area of physical education.
- Conducts research in the field of physical activity and testing.
- Directs preparation, revision, selection and or procurement of physical education instructional material.
- Organizes and supervises the in-service development program for instructors and supervisors by arranging conferences.

USCC HEALTH PROMOTION RESOURCE MODEL

ORGANIZATIONAL ELEMENT FUNCTIONS

**Directorate of
Cadet Education**

- Serves as advisor to the Commandant for all matters pertaining to leisure-time activities.
- Provides a balanced program of extracurricular activities which offers athletic, recreational, academic, religious, hobby, committee and corps support opportunities for cadet to pursue their special interests (83 clubs with 124 separate activities).
- Ensures club activities conform to established policy and procedures.
- Procures, stores, issues and prepares items sold in cadet restaurant.
- Commands and directs the administration, discipline and welfare of cadets assigned to his regiment.
- Oversees professional development of members of the regiment.

**Regimental Tactical
Officer**

Safety and Accident Prevention	/	/	/	/	/	/	/
Alcohol and Drug Abuse	/	/	/	/	/	/	/
Antitobacco Counseling	/	/	/	/	/	/	/
Suicide Prevention	/	/	/	/	/	/	/
Spiritual Fitness	/	/	/	/	/	/	/
Stress Management	/	/	/	/	/	/	/
Human Sexuality	/	/	/	/	/	/	/
Health Risk Appraisal	/	/	/	/	/	/	/
Physical Fitness	/	/	/	/	/	/	/
Nutrition	/	/	/	/	/	/	/
Weight Control	/	/	/	/	/	/	/
Hypertension	/	/	/	/	/	/	/
Oral Health	/	/	/	/	/	/	/

USCC HEALTH PROMOTION RESOURCE MODEL

ORGANIZATIONAL ELEMENT FUNCTIONS

Company Tactical
Officer

•Instructs cadets in professional subjects
and social behavior.

•Counsels and guides all cadets in the
company with regard to leadership,
professional development and personal
problems.

P	✓	✓	Safety and Accident Prevention
R	✓	✓	Alcohol and Drug Abuse
I	✓	✓	Antitobacco Counseling
M	✓	✓	Suicide Prevention
A	✓	✓	Spiritual Fitness
O	✓	✓	Stress Management
C	✓	✓	Human Sexuality
Y	✓	✓	Health Risk Appraisal
S			
E	✓	✓	Physical Fitness
C	✓	✓	Nutrition
O	✓	✓	Weight Control
N	✓	✓	Hypertension
D	✓	✓	Oral Health
A			
R			
Y			

Appendix B

The USMA Health Promotion Resource Model

[illegible]

USMA HEALTH PROMOTION RESOURCE MODEL

ORGANIZATIONAL ELEMENT	FUNCTIONS
Computer Systems Division	•Implements USMA automatic data processing policies and procedures. •Performs systems analysis and programming for all approved USMA-unique administrative applications and information systems. •Schedules execution of USMA-unique management information systems for optimum computer resource user and usage satisfaction. •Maintains, modifies, and update systems software to include network interface software. •Performs data base administration to include data base analysis, design, management and quality assurance. •Ensures security accreditation of the computer facilities. •Proponent of USMA Information Management Steering Committee. •Designs and implements data bases to support all organizations and activities.

P	Safety and Accident Prevention
R	Alcohol and Drug Abuse
I	Antitobacco Counseling
M	Suicide Prevention
A	Spiritual Fitness
R	Stress Management
Y	Human Sexuality
S	Health Risk Appraisal
E	Physical Fitness
C	Nutrition
O	Weight Control
N	Hypertension
D	Oral Health
A	
R	

Y	R	P
R	A	R
A	M	I
D	I	A
N	A	M
O	R	I
C	C	A
C	A	O
		A

✓	✓				Safety and Accident Prevention
✓	✓				Alcohol and Drug Abuse
✓	✓				Antitobacco Counseling
✓	✓				Suicide Prevention
✓	✓				Spiritual Fitness
✓	✓				Stress Management
✓	✓				Human Sexuality
✓	✓		✓	✓	Health Risk Appraisal
✓	✓				
✓	✓				Physical Fitness
✓	✓				Nutrition
✓	✓				Weight Control
✓	✓				Hypertension
✓	✓				Oral Health

ORGANIZATIONAL ELEMENT	FUNCTIONS
Provost Marshal	Enforces laws, regulations, orders and local command policies.
Directorate of Resource Management	Assists superintendent in establishing priorities for institutional research to include data collection and analysis.
Commander, MEDDAC	- Establishes priorities regarding use of resources to conduct research. - Serves, with DPCA, as principal advisor to superintendent with respect to Army Health Promotion Program. - Provides equipment and healthcare providers to administer and interpret Health Risk Appraisal, teach classes, and compile statistics to support health promotion program. - Uses ad hoc or subcommittees to address specific issues involving health promotion in the Medical Treatment Facility. - Develops protocols for identification and management of suicidal patients.

Appendix C

Health Risk Appraisail Respondent Analysis

BREAKDOWNS ON HEALTH RISKS BY AGE AND SEX -- 17 NOVEMBER 1987

HEALTH RISK	ALL FEMALES	AGE			
		25 OR LESS	26 - 34	35 - 39	40 OR MORE
1. WEIGHT OVER ARMY STANDARD	46%	*	*	63%	38%
2. RARELY/NEVER EAT TWO WELL BALANCED MEALS PER DAY	14%	*	*	13%	14%
3. DAILY/ALMOST DAILY EAT FOODS HIGH IN SATURATED FATS	17%	*	*	13%	14%
4. DAILY/ALMOST DAILY EAT FOODS HIGH IN SODIUM	8%	*	*	0%	10%
5. DON'T GET AEROBIC EXERCISE 3+ TIMES PER WEEK	94%	*	*	75%	100%
6. RARELY/NEVER EXERCISES FOR MUSCLE STRENGTH	89%	*	*	75%	90%
7. SMOKE CIGARETTES	20%	*	*	25%	24%
8. SMOKE 2+ PACKS PER DAY	3%	*	*	0%	5%
9. SMOKE A PIPE OR CIGAR	0%	*	*	0%	0%
10. USE SMOKELESS TOBACCO	0%	*	*	0%	0%
11. CONSUME 13 OR MORE ALCOHOLIC DRINKS PER WEEK	3%	*	*	0%	0%
12. CONSUME 30 OR MORE ALCOHOLIC DRINKS PER WEEK	0%	*	*	0%	0%
13. DRIVE UNDER THE INFLUENCE OF ALCOHOL	26%	*	*	38%	19%
14. RIDE WITH DRIVER UNDER THE INFLUENCE OF ALCOHOL	60%	*	*	63%	57%
15. SOMETIMES/NEVER WEAR SEATBELTS	0%	*	*	0%	0%
16. EXHIBIT FOUR OR MORE INDICATORS OF STRESS	11%	*	*	0%	14%
17. SERIOUSLY CONSIDERED SUICIDE IN THE LAST TWO YEARS	3%	*	*	0%	5%
18. DON'T HAVE PEOPLE TO TURN TO IN BAD TIMES	6%	*	*	0%	10%
19. SLEEP (5 OR)9 HOURS PER NIGHT	0%	*	*	0%	0%
20. HAVE HIGH BLOOD PRESSURE	9%	*	*	13%	10%
21. HAVE BORDERLINE BLOOD PRESSURE	0%	*	*	0%	14%
22. HAVE A BLOOD CHOLESTEROL LEVEL OVER 200MG%	26%	*	*	25%	29%
23. DON'T DO BREAST/TESTICULAR SELF EXAM MONTHLY	71%	*	*	88%	87%
24. WOMEN WHO TAKE BIRTH CONTROL PILLS AND SMOKE	0%	*	*	0%	0%
25. WOMEN WHO HAVEN'T HAD A PAP TEST IN PAST TWO YEARS	17%	*	*	25%	19%
WELLNESS CHECK SCORE (AVERAGE)	78.9	*	*	0.0	0.0
CHOLESTEROL LEVEL (AVERAGE)	237.7	*	*	233.1	249.2
BLOOD PRESSURE - SYSTOLIC (AVERAGE)	114.5	*	*	112.5	117.7
BLOOD PRESSURE - DIASTOLIC (AVERAGE)	72.8	*	*	73.3	73.8
NUMBER OF CASES (BY SUBGROUP)	35	2	4	8	21

* TO PROTECT CONFIDENTIALITY, PERCENTAGES ARE SUPPRESSED WHEN A GROUP CONTAINS 5 OR FEWER RESPONDENTS

*** U.S. ARMY WELLNESS CHECK DEVELOPED WITH THE COOPERATION OF THE RHODE ISLAND DEPARTMENT OF HEALTH ***

Health Risk Appraisal Respondent Analysis

FOR UIC OR PORTION OF UIC - A5SH8HP

PERCENT ANALYSIS BY QUESTION -- 17 NOVEMBER 1987

QUEST.	CONTENT	RESPONSE	COUNT	PCT.	QUEST.	CONTENT	RESPONSE	COUNT	PCT.
1	Frequency of eating two well balanced meals per day...?	daly/alm	18	40.0%	9	Do you smoke cigarettes now?	yes	8	20.0%
		3-5/wk	12	30.0%			quit(6mo	1	2.5%
		<3/wk	7	17.5%			quit)>6mo	9	22.5%
		rare/nvr	5	12.5%			never	22	55.0%
		SKIPPED	0	****			SKIPPED	0	****
2	Frequency of eating foods high in saturated fats...?	daly/alm	9	22.5%	10	Frequency of daily cigarette smoking...?	dn't smk	32	80.0%
		3-5/wk	21	52.5%			<1/2 pk	3	7.5%
		<3/wk	10	25.0%			1/2-1 pk	2	5.0%
		rare/nvr	0	00.0%			1-2 pk	2	5.0%
		SKIPPED	0	****			2+ pk	1	2.5%
							SKIPPED	0	****
3	Frequency of eating foods high in sodium each week...?	daly/alm	4	10.0%	11	How long have you smoked?	dn't smk	31	77.5%
		3-5/wk	4	10.0%			<1 year	1	2.5%
		<3/wk	20	50.0%			2-4 yrs	1	2.5%
		rare/nvr	12	30.0%			5-10 yrs	1	2.5%
		SKIPPED	0	****			>10 yrs	6	15.0%
							SKIPPED	0	****
4	Frequency of eating high fiber foods each week...?	daly/alm	16	40.0%	12	Want to stop smoking...?	dn't smk	33	82.5%
		3-5/wk	14	35.0%			quit now	0	00.0%
		<3/wk	6	15.0%			quit smd	6	15.0%
		rare/nvr	4	10.0%			no	1	2.5%
		SKIPPED	0	****			SKIPPED	0	****
5	How many hours of sleep do you get each night...?	<5 hrs	0	00.0%	13	Smoke a pipe or cigar...?	never	40	100.0%
		5-6 hrs	18	45.0%			< daily	0	00.0%
		7-8 hrs	22	55.0%			daily	0	00.0%
		9 hours	0	00.0%			SKIPPED	0	****
		>9 hrs	0	00.0%					
		SKIPPED	0	****					
6	Frequency of aerobic exercise per week...?	3+/wk	7	17.5%	14	Use smokeless tobacco...?	never	40	100.0%
		1-2/wk	11	27.5%			< daily	0	00.0%
		rare/nvr	22	55.0%			daily	0	00.0%
		SKIPPED	0	****			SKIPPED	0	****
7	Frequency of muscle strength improvement exercises...?	3+/wk	6	15.0%	15	Number of days per week at least one drink of alcohol...?	dn't drk	13	32.5%
		1-2/wk	4	10.0%			6-7 days	0	00.0%
		rare/nvr	30	75.0%			3-5 days	3	7.5%
		SKIPPED	0	****			1-2 days	6	15.0%
							<1 day/w	18	45.0%
8	Physical condition that limits or prevents exercise...?	yes	2	5.0%			SKIPPED	0	****
		no	38	95.0%					
		SKIPPED	0	****					

---> NUMBER OF RESPONDENTS = 40 <---

Health Risk Appraisal Respondent Analysis

COUNTS AND PERCENTAGES -- 17 NOVEMBER 1987

PAGE 2

QUEST.	CONTENT	RESPONSE	COUNT	PCT.	QUEST.	CONTENT	RESPONSE	COUNT	PCT.
16	Number of drinks in a typical week...?	dn't drk 4 or (	17 19	42.5% 47.5%	26	Have people to turn to for support in bad times...?	yes no SKIPPED	38 2 0	95.0% 5.0% *****
		5-12/wk 13-20/wk 21-30/wk >30/wk SKIPPED	3 1 0 0 0	7.5% 2.5% 00.0% 00.0% *****	27	Have considered suicide at least once in last 2 years...?	yes no SKIPPED	1 39 0	2.5% 97.5% *****
17	Wear seatbelts in vehicle...?	alwy/nrl sometime rare/nvr SKIPPED	40 0 0 0	100.0% 00.0% 00.0% *****	28	Have experienced a move or PCS in last year...?	yes no SKIPPED	3 37 0	7.5% 92.5% *****
18	Ever drive after drinking...?	never rarely sometime always SKIPPED	30 10 0 0 0	75.0% 25.0% 00.0% 00.0% *****	29	Have been separated from home base 3 weeks + in last year...?	yes no SKIPPED	3 37 0	7.5% 92.5% *****
19	Ever ride with a driver who has been drinking...?	never rarely sometime always SKIPPED	18 19 3 0 0	45.0% 47.5% 7.5% 00.0% *****	30	Informed of high or borderline BP in last 5 years...?	no yes, high borderlin SKIPPED	32 4 4 0	80.0% 10.0% 10.0% *****
20	Moving violation in last two years...?	yes no SKIPPED	12 28 0	30.0% 70.0% *****	31	Now being treated for high blood pressure...?	yes no SKIPPED	7 33 0	17.5% 82.5% *****
21	Serious personal loss or misfortune in last year...?	yes no SKIPPED	19 21 0	47.5% 52.5% *****	32	What is your blood cholesterol level?	<200 mg 200-250 >250 mg dn't rem nvr meas SKIPPED	2 6 4 12 16 0	5.0% 15.0% 10.0% 30.0% 40.0% *****
22	Major pleasant change in the past year...?	yes no SKIPPED	19 21 0	47.5% 52.5% *****	33	Discomfort above waist...?	yes no SKIPPED	11 29 0	27.5% 72.5% *****
23	Have trouble going to sleep or do not rest well...?	yes no SKIPPED	7 33 0	17.5% 82.5% *****	34	Do testicular or breast self-exam...?	no occaisly monthly SKIPPED	14 15 11 0	35.0% 37.5% 27.5% *****
24	Repeated periods of depression in last year...?	no sometime often SKIPPED	29 10 1 0	72.5% 25.0% 2.5% *****	35	Family history of heart attack before age 60...?	no yes don't kn SKIPPED	19 16 5 0	47.5% 40.0% 12.5% *****
25	Worries that interfered with daily life in last year...?	sometime often no SKIPPED	20 3 17 0	50.0% 7.5% 42.5% *****					

---) NUMBER OF RESPONDENTS = 40 (---

Health Risk Appraisal Respondent Analysis

COUNTS AND PERCENTAGES -- 17 NOVEMBER 1987

PAGE 3

QUEST.	CONTENT	RESPONSE	COUNT	PCT.	QUEST.	CONTENT	RESPONSE	COUNT	PCT.
36	Family history of stroke before age 60...?	no	31	77.5%	41	Females: Breast examination in past year...?	yes	27	77.1%
		yes	7	17.5%			no	8	22.9%
		don't kn	2	5.0%			SKIPPED	0	0.0%
		SKIPPED	0	0.0%					
37	Family history of high blood pressure...?	no	16	40.0%	42	Females: Take birth control pills...?	yes	4	11.4%
		yes	16	40.0%			no	31	88.6%
		don't kn	8	20.0%			SKIPPED	0	0.0%
		SKIPPED	0	0.0%					
38	Family history of diabetes...?	no	23	57.5%	43	What is your marital status...?	married	26	65.0%
		yes	15	37.5%			separated	1	2.5%
		don't kn	2	5.0%			divorced	8	20.0%
		SKIPPED	0	0.0%			widowed	1	2.5%
							single	4	10.0%
							SKIPPED	0	0.0%
39	What is your sex?	male	5	12.5%	44	What is your eligibility status...?	active	2	5.0%
		female	35	87.5%			act/bas	0	00.0%
		SKIPPED	0	0.0%			fam/act	1	2.5%
							retired	0	00.0%
40	Females: PAP test in last 2 years...?	yes	29	82.0%			fam/reti	4	10.0%
		no	6	17.1%			civ empl	33	82.5%
		SKIPPED	0	0.0%			other	0	00.0%
							SKIPPED	0	0.0%

---) NUMBER OF RESPONDENTS = 40 (---

* * * U.S. ARMY WELLNESS CHECK DEVELOPED IN COOPERATION WITH THE RHODE ISLAND DEPARTMENT OF HEALTH * * *

Health Risk Appraisal Respondent Analysis

WORKS CITED

- Bandura, A. Social Learning Theory. New Jersey:
Prentice, 1977.
- Behrens, Ruth A. and Mary E. Longe. Hospital-Based
Health Promotion Programs. Chicago: American
Hospital Publishing, Inc. 1987.
- Blum, Henrik L. Planning for Health. New York:
Human Sciences Press, 1974.
- . "Social Perspective on Risk Reduction."
Promoting Health Through Risk Reduction. Ed.
Faber, Marilyn M. and Adina M. Reinhardt. New
York: Macmillan, 1982. 19-36.
- Carlin, Pamela
J. "Testicular Self-Examination: A
Public Awareness Program." Public Health
Reports. 101:1, (1986): 98-102.
- Cooper, Stewart E. Ph.D. and Debra A.G. Robinson,
Ph.D. "Use of the Substance Abuse Subtle
Screening Inventory With A College Population."
Journal of American College Health. 36:3,
(1987): 180-184.

WORKS CITED

- Dunton, Sabina M.P.H. "Evaluating a Risk Reduction Program: Well Aware About Health, A Controlled Clinical Trial of Health Assessment and Behavior Modification." Promoting Health Through Risk Reduction. Ed. Faber, Marilyn M. and Adina M. Reinhardt. New York: Macmillan, 1982. 305-321.
- Faber, Marilyn M., M.A., M.H.A. "Sharing Responsibility: The New Health Partnership." Promoting Health Through Risk Reduction. Ed. Faber, Marilyn M. and Adina M. Reinhardt. New York: Macmillan, 1982. 336-351.
- Fielding, Jonathan E. "Risk Reduction Goals Throughout Life." Promoting Health Through Risk Reduction. Ed. Faber, Marilyn M. and Adina M. Reinhardt. New York: Macmillan, 1982. 4-18.
- Hettler, Bill M.D. "Wellness Promotion and Risk Reduction on a University Campus." Promoting Health Through Risk Reduction. Ed. Faber, Marilyn M. and Adina M. Reinhardt. New York: Macmillan, 1982. 94-108.

WORKS CITED

- Hyner, Gerald C. Ph.D and Christopher L. Melby,
M.P.H., DHSc. "Healthy Lifestyling: A
Nontraditional Approach to Facilitating
Health-Enhancing Behaviors in University
Undergraduates" Journal of American College
Health Volume 33, (1985): 264-265.
- Longe, Mary E. and Anne Wolf, Promoting Health Through
Innovation Chicago: American Hospital
Publishing, Inc. 1984.
- McAlister, Alfred L. Ph.D., Cheryl Perray, M.A., and
Nathan Maccoby, Ph.D. "Adolescent Smoking:
Onset and Prevention." Pediatrics, 63:4, April
1979: 650-658.
- "Model". American Educators Encyclopedia. 1980 ed.
- Morris, Naomi M., M.D , M.P.H. "Risk Reduction in the
Adolescent Years." Promoting Health Through Risk
Reduction. Ed. Faber, Marilyn M. and Adina M.
Reinhardt. New York: Macmillan, 1982. 94-108.
- Naisbitt, Thomas. Megatrends.
- Rostker, Bernard D. "Selective Service Program
Overview and the Results of the 1980
Registration." Defense Manpower Planning:
Issues for the 1980's. Ed. Taylor, William J.
et. al. New York: Pergamon Press, 1981.

WORKS CITED

Shortell, Stephen M. and Arnold D. Kaluzny.

Health Care Management: A Text in Organization
Theory and Behavior. New York: John Wiley and
Sons, 1983.

Speigel and Hyman

Spilman, Mary Ann, Ph.D et.al. "Effects of a
Corporate Health Promotion Program." Journal of
Occupational Medicine 28(4): 285-289.

United States. Cong. Title 10, United States Code.
Washington: GPO, 1985.

---. Dept. of the Army. The Adjutant General.
Army Health Promotion. Washington: GPO, 1987.

---. ---. ---. Fit to Win Commander's Guide.
Washington: GPO, 1987.

---. ---. ---. USMA Regulation 10-1. New York:
United States Military Academy, 1987.

---. Department of Health, Education, and Welfare.
The Surgeon General. Healthy People.
Washington: GPO, 1979.

---. Department of Health and Human Services.
The Surgeon General. Charting the Nation's
Health. Washington: GPO, 1984.

WORKS CITED

- . ---. ---. Preventing Disease/Promoting Health: Objectives for the Nation.
Washington: GPO, 1980.
- Wilson, Richard W., Kerry J. Redican, and William Hettler, "Effects of the Health Hazard Appraisal Inventory on Practices of College Students." Health Education. January/February 1980: 28-30.
- Wolcott, Barry W. Personal interview. 15 October 1987.

WORKS CONSULTED

- Blair, Steven N. et.al. " A Public Health
Intervention Model for Work-Site Health
Promotion: Impact on Exercise and Physical
Fitness in a Health Promotion Plan After 24
Months" Journal of the American Medical
Association 255(7): 921-926.
- Boissoneau, Robert, Ph.D "Planning and Conducting an
Information Interview" Health Materiel
Management Quarterly, 1986, 7(4): 17-20.
- Breckon, Donald J., John R. Harvey and R. Brick
Lancaster Community Health Education
Rockville, Maryland: Aspen Publications, 1985.
- Breslow, Lester, M.D. and Anne R. Somers "The
Lifetime Health-Monitoring Program: A Practical
Approach to Preventive Medicine", The New
England Journal of Medicine, 296(11): 601-608.
- Brunk, Mary "A Student Wellness Club that Works"
Journal of American College Health, 1982,
30(6): 300.

WORKS CONSULTED

Buckles, Tom A. and Robert Boissoneau, Ph.D

"Decision-making Tools: Designing Effective
Questionnaires" Health Materiel Management
Quarterly, 1984, 5(5): 42-49.

Carey, Martha Imrie, "Peer Health Advisor Program to
Reduce the Health Risks of University Students"
Public Health Reports, 1984, 99(6): 614-620.

Cooper, Stewart E. Ph.D. and Debra A. G. Robinson, Ph.D

"Use of the Substance Abuse Subtle Screening
Inventory with a College Population" Journal of
American College Health Vol 36:3, November
1987: 180-184.

Delbecq, Andre L., Andrew H. Van de Ven and David H.

Gustafson Group Techniques for Program
Planning, Glenview, IL: Scott, Foresman and
Co., 1975.

Evans, Ronald G, Ph.D. and Brent Decker, "A Smoking and
Health Fair: Implementation and Evaluation."
Journal of American College Health Vol 36:3,
November 1987 172-174.

Fritz, Wanona S. R.N., M.S. "Maintaining Wellness:
Yours and Theirs" Nursing Clinics of North
America (19)2: 263-269.

WORKS CONSULTED

- Gibbs, James O., Ph.D et.al. "Work-Site Health Promotion: Five-Year Trend in Employee Health Care Costs" Journal of Occupational Medicine 27(11): 826-830.
- Gordon, James S., M.D. "Health Care in the Eighties: Toward a Holistic Approach", The Healing Partnership: Essays for Health Professional, Students, and Patients Washington D.C: Aurora Associates, Inc, 1984: 49-78.
- Hiatt Howard H. America's Health In the Balance: Choice or Chance? New York: Harper and Row, 1987.
- Holder, Evelan R. Building Community Support For Health Promotion Programs: A Model Kansas City, MO: American Nurses' Foundation, Inc. 1985.
- HSC Support of the Army Health Promotion Program San Antonio, Texas: Health Services Command, Department of the Army, 9 October 1987.
- Kinney, Jean and Deborah Peltier "A Model Alcohol Program for the College Health Service" Journal of American College Health, 1986, 74(3): 229-233.

WORKS CONSULTED

- Lewin, K. "Action Research and Minority Problems",
Journal of Social Issues, 1946, 2, 34-64.
- Mackenzie, R. Alec "The Management Process in 3-D"
Harvard Business Review November-December
1969: 80-87.
- McCormick, Brian "Wellness Councils Prove Popular
with Employers" Hospitals, 5 September 1986: 45.
- Mechanic, David From Advocacy To Allocation: The
Evolving Health Care System New York: The Free
Press, 1986.
- Moore, Pamela V., M.P.H., R.N. and Williamson, M.N.,
R.N.C., F.N.P. "Health Promotion: Evolution of
a Concept" Nursing Clinics of North America
(19)2: 195-206.
- Morris, Naomi M. M.D., M.P.H. "Risk Reduction in the
Adolescent Years", Promoting Health Through
Risk Reduction, Faber, Marilyn M. and Reinhardt,
Adina M., Editors, New York: Macmillan
Publishing Co., Inc, 1982: 94-108.
- Ng, Lorenz K.Y. and Devra Lee Davis, Editors,
Strategies for Public Health: Promoting Health
and Preventing Disease New York: Van Nostrand
Reinhold Company, 1981.

WORKS CONSULTED

- Patton, Michael Quinn Utilization-Focused Evaluation
Beverly Hills, CA: Sage Publications, 1978.
- Perry, Cheryl L., Ph.D., Gretchen Griffin, M.P.H. and
David M. Murray, Ph.D. "Assessing Needs for
Youth Health Promotion" Preventive Medicine
14(1985): 379-393.
- Peters, Thomas J. and Robert H. Waterman, Jr. In
Search of Excellence New York: Warner
Communications Company, 1982.
- Rentmeester, Kenneth L., M.P.H. and Janet Browne Hall
"Organizing a Community for Health Promotion"
Promoting Health Through Risk Reduction, Faber,
Marilyn M. and Reinhardt, Adina M., Editors, New
York: Macmillan Publishing Co., Inc, 1982:
239-253.
- Roemer, Milton I. National Strategies for Health Care
Organization Ann Arbor, MI: Health
Administration Press, 1985.
- Rosenthal, Raymond F., M.D., M.P.H. and Cynthia D.
Scott, Ph.D, M.P.H. "Health Promotion
Resources", The Healing Partnership: Essays
for Health Professional, Students, and Patients
Washington D.C: Aurora Associates, Inc, 1984:
37-47.

WORKS CONSULTED

Sidel, Victor W. and Ruth Sidel, A Healthy State New York: Pantheon Books, 1983.

Weiss, Carol H. Evaluation Research: Methods of Assessing Program Effectiveness Englewood Cliffs, New Jersey: Prentice-Hall, Inc. 1972.

Weinstein, Neil D., Editor, Taking Care: Understanding and Encouraging Self-Protective Behavior New York: Cambridge University Press, 1987.

Williamson, John W. Assessing and Improving Health Care Outcomes: The Health Accounting Approach to Quality Assurance Cambridge, MA: Ballinger Publishing Company, 1978.