THE DEVELOPMENT OF A WELLNESS INSTRUMENT
TO PREDICT THE USE OF ACCIDENT
AND HEALTH INSURANCE

DISSERTATION

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By

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The problem with which this study was concerned is that of developing an instrument for predicting the use of accident and health insurance. The purposes of the study were to translate selected theoretical descriptions of wellness into discrete components of behavior, to develop a valid and reliable self-report instrument, and to determine the correlation between wellness behaviors and a person's use of accident and health insurance.

Content validity was established by a panel of judges, each of whom was selected on the basis of professional concern for the areas of interest in health contained in the instrument. The original instrument of fifty-five items was increased by three items resulting in a fifty-eight item instrument, which was then approved by each of five judges.

A satisfactory coefficient of stability was determined through the test-retest method, utilizing an interim period of ten days. The instrument was found to be highly reliable; the Pearson Product Moment Correlation Coefficient was .98.

The Wellness Survey was administered for the purpose of detecting those individuals who received a high level of claim coverage from the self-insurance program of municipal government, the City of Denton, Texas. The Wellness Survey
was expected to help identify individuals whose scores could be inversely related to accident and health insurance use in a one year period. A simple random sample was drawn from the employment population and divided into two groups according to the extent of use of the self-insurance program.

No significant relationships were found to exist between the scores on the instrument and the individual's use of the insurance program. This report concludes that if a correlation between health behaviors and a person's use of accident and health insurance exists, this instrument does not detect such a relationship.
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CHAPTER I

INTRODUCTION

The World Health Organization (W.H.O.) defines health as a state of complete physical, mental, and social well-being, not merely the absence of disease or infirmity. However, interest in health is largely crisis-oriented with the crises changing with age. If illness strikes, the interest and efforts of the individual and those who assist in his care are concentrated upon the crisis until it passes, and he then accomplishes a return to "normalcy." Thus, because health interest is crisis-oriented, individuals tend to ignore some needs of the body, mind, and spirit until the functioning of such units is disrupted.

Supporting this particular attitude about health, Bruhn and Cordova offer an explanation and solution for health interest:

A concern for one's health and well-being is frequently first acknowledged in middle adulthood, usually after some temporary or permanent loss of health. It is after the loss of health that individuals often reflect on their philosophical tenets for living. Each individual makes his own choice about life-style and life-goals. It is the authors' assumption that more individuals would make choices that enhance their health and well-being if they felt more competent to do so.1

Further Moss, Southworth and Reichert questioned the ability of individuals to live within the W.H.O. definition of health and restated it as "A condition in which the individual is able to mobilize all of his resources--intellectual, emotional, and physical--for optimal living."² Also, Dunn expanded the W.H.O. definition and emphasized the positive aspects of the process of living as follows:

High level wellness for the individual is defined as an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable. It requires that the individual maintain a continuum of balance and purposeful direction within the environment where he is functioning.³

This definition accommodates individuals in a variety of physical capacities, including those individuals who are non-ambulatory.

Wellness is a way of living in a positive process, whatever one's environment. As a process, wellness is not something that a person can attain as an end-product of a working effort, but it is a style of living that includes behaviors which enhance a person's health toward a state of complete well-being.

Many behaviors can be identified as health-enhancing or health-destroying. One of the more important health-destroying activities affecting our society is smoking.

In 1963 the Advisory Committee to the Surgeon General of the U.S. Public Health Service reported in *Smoking and Health* as follows:

Cigarette smoking is causally related to lung cancer in men, the magnitude of the effect of cigarette smoking far outweighs all other factors. The data for women, though less extensive, point in the same direction. The risk of developing lung cancer increases with duration of smoking and the number of cigarettes smoked per day, and is diminished by discontinuing smoking.\(^4\)

That warning became public almost twenty years ago, yet the practice of cigarette smoking continues; it has not been eliminated to any great extent.

As with smoking, other behaviors that appear to contribute to disease or infirmity are often the results of a person's choice of participation. At least one physician has gone to the extent of stating "...that over 99 per cent of us are born healthy and made sick as a result of personal misbehavior and environmental conditions."\(^5\) Today, the leading causes of death among adults include cardiovascular diseases and cancer. The lifestyle choices that contribute to these important life-threatening conditions include, among others, smoking, inappropriate diet, unwise use of alcohol and other drugs, chronic stress, and lack of sleep and exercise. These "misbehaviors" may not be interpreted as indivi-  


dual choices, but whatever the reasons, individuals must accept more responsibility for the mistreatment of themselves.

Perhaps an individual's perception of insurance protection has granted him an extra measure of risk-taking, or chance, in view of the financial assistance from insurance coverage. A major health concern of society is protection by health-care insurance; it is one of the benefits expected with employment because of the expense involved in obtaining coverage. Several insurance companies offer group plans to employers. Also several employers have developed systems of self-insurance. Basic self-insurance plans involve a pooling of premiums out of which the claims are paid. Some employers find beneficial the adoption of self-insurance programs because of a possible savings in premiums.

Some of the large insurance companies have recently made a distinction between premium amounts for those policy holders whose lifestyle behaviors are considered to be more healthy than unhealthy. State Mutual Life Assurance Company of America "...pioneered discount rates for non-smokers after the U.S. Surgeon General's original report on smoking and health in 1964." State Mutual has conducted research that found "...death rates among smokers of all ages were more than twice as great as those of non-smokers and for certain

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causes such as respiratory cancer, ran as much as fifteen times higher. A spokesman for the company was quoted as saying "...for insurance purposes, the lower death rates of non-smokers should become the standard measuring stick, since the majority of Americans no longer smoke, while smokers should be penalized for their unhealthy habit." At present about thirty of the 1800 life insurance companies offer lower rates for non-smokers. Whether lowering premiums will serve as incentive for change in smoking behavior remains to be seen. The threat of developing disease does not appear to motivate many individuals to change their behavior.

Despite this lack of motivation to change behavior and thus prevent disease, an underlying assumption is that people do not want to live with a low quality of health. Health education is a process, designed with a combination of methods, which enhances learning about health and its relationship to the various environments. Through this process, an attempt is made to increase the quality and quantity of cognitive material that is available to enable the individual to make the best health decisions. Possibly more important than these materials, the individual may benefit from an increased awareness of the part that his feelings play in his decision-making processes. The more clearly the individual understands his feelings about his behavior, the more likely he

7Ibid. 8Ibid.
may be to undergo a change. Health education is ultimately evaluated in terms of human behavior. If the disease and death rates are high, the process of health education is determined to be ineffective. The search is never-ending for answers to the questions of what inspires people to change age-old habits, of how change can be accomplished, and of why more people do not eliminate health-destroying habits.

Godfrey Hochbaum, noted health educator from the University of North Carolina, spoke in 1978 to the annual meeting of the Florida Public Health Association about the status of health education as follows:

Although the term "health education" seems to emphasize health, in practice it is used to refer to the prevention and treatment of disease and the appeals used by the health professionals, especially those involved in health education (including that of professional health education), are predominantly to people's fears of disease and death. It seems to me that this orientation may at times not only contribute more to misery rather than to a better life, but may often defeat our attempts to persuade people to engage in more healthful living practices...But while I must, do and will try to foresee (and protect myself against) dangers to my health and life, I do not wish to have my life revolve entirely around fears of possible dangers and crises.

People need more than a maintenance-care program for their health; they need a program that interprets health as more than the prevention of illness and the extension of life. Whatever the ultimate health program will become, it must begin with an assessment of the individual's status of

healthful living. The development of a completely positive approach to analyzing a person's own health behaviors in terms of beneficial results for the individual would be unique at this point in time.

Health educators use many different tools for teaching healthful living concepts. Many of the currently used materials are negatively oriented with emphasis placed upon the fears, or risks, of disease and death. By emphasizing the concept of wellness behaviors, a person should expect to realize the benefits of accentuating the positive as opposed to emphasizing the negative. The individual is the only one who can make the decision to change his behavior if he believes it needs to be changed. To help an individual make such a decision, he needs a tool with which he can evaluate his lifestyle. The individual needs to know whether his lifestyle is aimed toward wellness or toward illness.

Statement of the Problem

The problem of this study is to develop a wellness instrument for predicting the use of accident and health insurance.

Purposes of the Study

The purposes of the study are as follows:

1. To translate selected theoretical descriptions of wellness into discrete components of behaviors which can be
assessed by means of a self-report instrument;

2. To develop a valid and reliable self-report instrument, the Wellness Survey, which can reveal a person's status of wellness behaviors according to selected characteristics of healthful living;

3. To determine the correlation between wellness behaviors and use of accident and health insurance;

4. To determine whether the instrument can detect those individuals who receive a high level of claim coverage from the insurance program.

Hypotheses

To carry out the purposes of the study, the following hypotheses were tested.

I. An inverse relationship exists between an individual's status of wellness behaviors and the use of accident and health insurance.

II. The mean scores on the Wellness Survey for Insurance Group One (more than $500 per year) will be lower than the mean scores for Group Two (less than $500 per year), and the mean scores for Group Two, Subgroup 1 ($1.00 to $500 per year) will be lower than the mean scores for Group Two, Subgroup 2 (no insurance use).

Background and Significance of the Study

Traditionally, the emphasis of health care and medicine has been upon prevention of illness and restoration to a
status of disease-free health. Today, health care is faced with numerous health conditions that are not so simply prevented. In the past, the identification of the causative agent was the first step to prevention of disease. Destruction or avoidance of the causative agent resulted in "health" whereas the contact with a causative agent often led to "illness."

Health behaviors can now be identified as contributing agents in the respect that personal habits such as smoking, eating a poor diet, drinking alcohol, and taking infrequent physical exercise tend to make the problems with diseases of circulation and respiration worse than they might be with better habits of good health. Advocates of wellness contend that wellness behavior is learned. One advocate goes so far as to say that "Fundamentally, illness becomes nothing more than a failure of the wellness concept."

If the avoidance and prevention of disease leaves a person in a state of not-being-ill, a question remains as to whether degrees of wellness exist. Authors of the wellness concept contend that wellness is much more than the W.H.O. definition of health. Ardell, a consultant engaged in varied programs designed to implement the wellness ethic, describes the wellness lifestyle as an "...approach to realizing your

best potentials for well-being."\textsuperscript{11} Ardell refers to the
wellness, or high level of health, as the true normal stan-
dard of health.\textsuperscript{12}

Wellness requires that the individual desire to live in
a process of continuing improvement of all the dimensions
that constitute man. For any ongoing process to be success-
ful, it must be subjected to frequent evaluations of status.
As needs are identified, change may be required to adjust the
direction of the process. The critical evaluation must be
important to the individual. Further, it must be an assess-
ment which the individual can use by himself and incorporate
into his lifestyle.

The authors of the wellness concept advocate development
toward a person's potential within the present environment.
Otto compiled and edited several pages which comprise \textit{Explo-
rations in Human Potentialities}. In the Introduction, the
author cites the challenge and major promise of the age in
the recognition that healthy humanity is operating at ten to
fifteen percent of its potential.\textsuperscript{13}

In terms of working toward the potentialities of health

\textsuperscript{11}Donald B. Ardell, "The Nature and Implications of
High Level Wellness, Or Why 'Normal Health' is a Rather Sorry
State Of Existence," \textit{Health Values} (January, February,
1979), p. 17.

\textsuperscript{12}\textit{Ibid.}, p. 18.

\textsuperscript{13}Herbert A. Otto, ed., \textit{Explorations in Human Poten-
and wellness, society has done little to encourage individuals to assume self-responsibility for staying well or "...to do more to enhance one's total functioning than to try to remain free from symptoms of disease." Bruhn and Cordova feel that "...few individuals have the knowledge and skills" to improve their total health and well-being. They continue by saying "There is a body of knowledge and skills that can be taught and learned about how to enhance one's health." Individuals need the information about such knowledge and skills.

Another important aspect of enhancing health and well-being is the acceptance of responsibility and permission for making decisions about health status. In 1978 Shirreffs wrote the following in regard to health activation and self-care:

The individual is coming to be recognized by many providers and consumers of health care alike as the primary health care resource, and individual behaviors and lifestyles are now recognized as the principle determinants of health. A new trend toward health activation is emerging which emphasizes self-care and self-help. This movement is transforming the traditionally passive patient into an active, informed and effective participant in health care and health promotion...Integration of health education concepts and strategies which health activation programs may have an overall effect of enhancing health in the United States.

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15Ibid.
16Ibid.
She continues by saying:

Individuals may either enhance or detract from their well-being as a result of the lifestyle choices they make. The more knowledge an individual possesses about health and basic anatomy and physiology, the better prepared he or she will be to make responsible decisions which are health generating.18

To clarify for individuals their responsibility toward their high-level wellness or health, the W.H.O. Technical Report Series written by the "Expert Committee on Health Education of the Public" states as follows:

The aim of health education is to help people to achieve health by their own actions and efforts. Health education begins therefore with the interest of people in improving their conditions of living and aims at developing a sense of responsibility for their own health betterment as individuals and as members of families, communities or governments.19

A considerable amount of literature has been devoted to the responsibilities of the individual as a valuable contribution toward improvement of the nation's health status.20,21,22

Models often exemplify behaviors that individuals may desire to duplicate. Fromm calls for models that will serve

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18 Ibid.


as "...alternatives to debilitating ill-being." In his analysis of the present lifestyles in our society, Fromm maintains that the concept of "unlimited pleasure" and "...radical hedonism cannot lead to happiness..." and that "...our kind of pursuit of happiness does not produce well-being. We are a society of notoriously unhappy people: lonely, anxious, depressed, destructive, dependent people who are glad when we have killed the time we are trying so hard to save." Fromm believes wellness is a part of the process of being, not of acquiring material wealth but of becoming alive to ourselves.

Recently the U.S. Public Health Service released the first copies of Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention. The thesis of this report is that if our nation is to improve the health of its citizens, it must reorder its present priorities in health care, to put greater emphasis on the prevention of disease and the promotion of health. In the effort to promote health, the responsibility of the individual cannot be taken lightly. Yet, the individual must be given some of the tools with which to do the task.

23Erich Fromm, To Have Or To Be? (New York, 1976), p. 12.
24Ibid.
25Ibid.
In February 1980, the National Center for Health Education established three priorities for major emphasis, one of which was "To look at the attributes of 'wellness' and 'good health' to see if they could be identified and incorporated into the center's activities." The results of this study may make a positive contribution to the National Center's study on wellness.

Many of the health-evaluation materials currently used are risk-oriented, that is, they speak in terms of a person's chances of developing a major disease within a period of time. As previously stated, behavioral change does not develop in the face of threats to health although such change may occur after the onset and recovery from serious illness.

Existing is a need for materials that have been developed in a positive style of reinforcement to assist with the promotion of health. The instrument designed for this study is written in such a manner as to promote good health toward a higher level of wellness. The instrument should serve as both an educational tool to increase a person's awareness of positive wellness behaviors and as an evaluative tool for checking progress toward the individual's goal. The instrument is expected to detect those respondents who are engaged in a high level of responsibility for themselves and for

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others. Ardell says that "Self-responsibility for your own health does not guarantee well-being, but without it there is little prospect for a wellness lifestyle."28

Definition of Terms

The following terms have specific meanings and are thus defined for this study.

1. **Wellness** is a lifestyle process that emphasizes positive health aspects of the body, mind, and spirit.

2. **Wellness behaviors** are those actions that affect a person health status in a positive direction toward levels of better health.

3. **Well-being** is the state of wellness of body, mind and spirit within the environment in which the individual is functioning at the present time.

4. **Use of accident and health insurance** is payment made in response to a claim filed against an insurance policy.

Delimitations

The study was conducted in the City of Denton, Texas, in cooperation with the Director of Personnel of the government of the City of Denton. The employment population of the City of Denton is the extent to which the results of the Wellness

Survey responses are generalizable. A city of similar size and composition of employment situations may receive benefit from the results.

Procedures for Collecting and Treating the Data

A panel of judges determined the content validity of the instrument upon its completion. The establishment of reliability was accomplished through the use of the test-retest method with an interim period of ten days. Employees of the City of Denton participated in the reliability testing.

The instrument was administered to a simple random sample of city employees. These individuals were employed full-time and had worked for the City for at least one year.

The results were tested for correlation by calculating the biserial correlation coefficient using the total score on the instrument as the continuous variable and the extent of use of accident and health insurance as the dichotomous variable. Use of the insurance in claim amounts exceeding $500 constituted a high level of use while amounts below that figure, including non-use, constituted a low level of use. Additional correlations were calculated using the portion of the sample that received claim payments in the amounts between $1.00 and $500.00.

The t-test for two independent samples was calculated, using the mean scores for each Insurance Group, to determine whether significant difference existed between the groups.
CHAPTER II

REVIEW OF LITERATURE

Background of Wellness

A review of literature is extremely limited because of the infancy of the wellness type of approach to health assessment. Preceding the evolution of the wellness approach, the health risk appraisal became a popular method of personal health assessment. This method emphasizes physical risk factors, including items of cardiovascular health risk, safety factors, hereditary influences, and history of disease. This logical approach in attempting to prevent the occurrence of the top three death-producing events; heart attack, cancer, and stroke; resulted from the preventive medicine movement, which emphasized the risk factors associated with lifestyle behaviors. Since the medical breakthroughs in controlling pathogenic disease had reduced the incidence of death from disease-causing organisms, the advent of the "non-pathogenic" diseases such as cancer and heart attacks have headed the list of death-producing events. The risk factors associated with lifestyle behaviors are identified in the well-known Geller-Gesner tables which are presented in the book Prospective Medicine.¹

¹Jack H. Hall, and Jack D. Zwemer, Prospective Medicine, 2d ed., (Indianapolis, 1979) pp. 87-293.
Besides the health-risk appraisal, several others have surfaced. These appraisals have health hazards, or risks, as the focal points. They are used by physicians and individuals to assess the influence of several events, including lifestyle choices, on longevity or lifespan. Specifically such appraisals attempt to predict the individual's chances of dying of certain causes within the next ten years. With this information, the individual is then expected to engage in behavioral change to prevent such perceived inevitable events. At least one health appraisal method includes information on a "compliance age." When the individual's chronological age is, for example, 35, the Health Hazard Appraisal may determine that the present lifestyle behaviors and other factors equate the individual's life to that of an "appraised health age" of 42. The analysis continues to project a "compliance age," the age to which the "health age" might become adjusted if certain behavioral changes were made. The appraisal results list the behavioral changes specifically indicated. The individual is then expected to respond by engaging in whatever activities may result in the "prescribed" changes.

This type of health assessment was not selected as a wellness promotion instrument because of the perceived fear or scare tactics implied in the presentation of the results.

2 Ibid.
Without specific programs made available to the individuals, as reported in Bensley's work, the individual will unlikely achieve permanent changes as "prescribed" in the appraisal results.³

If longevity could be cited as a universal goal in life, Belloc's findings of a large-scale survey of health habits might serve as the ultimate prescription for success in healthier living.⁴ The survey involving 7,000 adults in California demonstrated a life expectancy of 11.5 more years for those individuals who practiced six or seven of the identified habits as compared with those who only followed three or fewer of the health habits. Belloc found these health habits to be as follows: no smoking, moderate drinking, seven or eight hours of sleep per night, regular meals with no snacks in between, breakfast every day, normal weight, and moderate regular exercise. Although a greater life expectancy does not necessarily indicate a higher quality of life, these basic habits must be recognized as positive contributions to wellness.

Perhaps the earliest contribution to the wellness theory of health was made by Halbert L. Dunn, M.D. Through a series of lectures in the late 1950's, Dunn attempted to develop his


philosophy of wellness into concepts to which his audience could relate their personal lifestyles. In his book, *High-Level Wellness*, Dunn explains the interrelationships of a person's body, mind, and spirit in terms of establishing wellness and of encouraging the development of human potential. The process of wellness becomes an educational endeavor in which the individual continually analyzes and evaluates goals and progress made toward those goals. Emphasis on the prevention aspects of disease, on disability, and on social breakdown are extremely important in the wellness lifestyle, but obvious encouragement toward the establishment of a healthy lifestyle that is above the absence of disease is one of the foremost objectives of Dunn's work.

Dunn spoke specifically about the areas of wellness when he explained the need for research in the following areas:

1. Means of improving wellness in family living and in community living;

2. Measures to teach wisdom (in addition to, and as distinguished from, knowledge) within the present framework of education;

3. Measures to develop understanding and methods of adjustment in man's interpersonal relationships, throughout life;

4. Measures to develop higher levels of wellness among those in leadership positions with control over others;

5. Methods to ensure open channels of information and access to the reservoirs of knowledge, especially in controversial subjects;
6. Systematic and continued efforts to enhance the importance of creative expression throughout life and society;

7. Systematic and continued efforts to foster altruistic expression as a tonic to the spirit of man and as a means of providing ego security among one's fellows;

8. Crystallization of the concept of maturity in wholeness, in all its ramifications;

9. Opportunity to utilize for the benefit of society those who have demonstrated maturity in wholeness and who have attained a high level of performance in their lives.⁵

Followers of this pioneer and promoters of the wellness approach to increased quality of life have attempted to define and implement the wellness lifestyle. Wellness materials consisting of books, assessment scales, tapes of lectures, and newsletters have been developed and published in increasing numbers since the mid-1970's. No research findings of the wellness approach to health assessment however, have been found to be reported. Despite this absence of reported research, work is being done in this area. Several wellness centers are under development; thus, long term research findings will likely come from such commercially administered projects. The Wellness Resource Center in Mill Valley, California, under the direction of Dr. John Travis, and the Institute for Lifestyle Improvement at the University of Wisconsin at Stevens Point, organized by Dr. William Het-

tier, are examples of such projects. A recently developed Wellness Institute in Sloatsburg, New York, is preparing a bi-monthly publication, "The Wellness Newsletter" which, like the monthly magazines Health, the Magazine for Total Well-Being, Health Values, Prevention, will emphasize articles on health enhancement, or wellness, as the main focus.

According to Dunn, the development of wellness as an educational endeavor undertaken by the individual requires a continual evaluation and adjustment process. Such evaluation would include analysis and judgment by the individual on all the various health dimensions of the body, mind, and spirit. Scare tactics and threats of disease development seem to be unnecessary in such an evaluative process.

Continual evaluation of lifestyle behaviors will inevitably require that the individual periodically analyze personal feelings and attitudes concerning those behaviors. Research has failed to support the beliefs that information alone will serve as an effective motivator for behavioral change. The development of an instrument that combines the cognitive and affective elements of wellness is expected to...

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6 Health, the Magazine for Total Well-Being (New York, Family Media, Inc.).

7 Health Values: Achieving High Level Wellness (New Jersey, Charles B. Slack, Inc.).

8 Prevention (Emmaus, Pa., Rodale Press).
assist the individual in the continual evaluation process of his lifestyle.

The published works of authors Dunn, Ardell, Travis, Hettler, Clark and the unpublished work of Corry provide additional basis for the development of an instrument which may implement research of wellness lifestyles. From a compilation of inventories and surveys found in these works, a nucleus of wellness lifestyle behaviors can be culled. For example, Hettler's work for the Institute for Lifestyle Improvement has identified six dimensions of wellness: physical, including fitness and nutrition; emotional; intellectual; social, including family, community, and environment; occupational and vocational; and spiritual, including values and ethics.9

Travis has developed a "Wellness Inventory" comprised of 100 items in such areas as productivity, relaxation, sleep, personal care, home safety, nutritional awareness, environmental awareness, physical activity, emotional maturity, expression of feelings, community involvement, creativity, self-expression, automobile safety, and parenting.10

Corry's unpublished "Health Behavior Inventory" contains


contains seventy-eight items included in basic sections entitled "health maintenance" of spiritual, social, physical, and mental aspects of behavior.\textsuperscript{11}

Ardell adds two specifically emphasized areas to the basic dimensions of wellness; self-responsibility and stress management. His theme of high level wellness promotes individual uniqueness, a coordinated or integrated lifestyle, and, the most important theme, "Wellness as a positive approach."\textsuperscript{12} Clark's work, one of the most recently developed approaches, includes elements of self-healing, assertiveness and caring, in addition to those areas frequently found in the previously cited works.\textsuperscript{13}

At this point, to heed the cautious view of John Grossman, a freelance writer, when he attempts to answer his question "Wellness: Fad or Forever?" may be wise. Writing in a recent issue of Health, he presents some answers to his more specific questions concerning whether wellness works for the masses and whether its benefits are lasting. He continues,

\begin{quote}
It looks as though those questions will not be answered at least until major studies now under way are completed. Within the next few months, we should have the results of a five-year University of Arizona investiga-
\end{quote}

\textsuperscript{11}James M. Corry, "Health Behavior Inventory," unpublished (Denton, Texas, 1979).

\textsuperscript{12}Donald B. Ardell, High Level Wellness (Emmaus, Pa., 1977), Introduction.

\textsuperscript{13}Carolyn C. Clark, Enhancing Wellness (New York, 1981).
tion into the efficacy of health-hazard appraisals in stimulating healthier behavior. A much broader six-year evaluation, which may become the definitive wellness study, is now in its second year. This federally funded study will assess specially mounted wellness efforts among the 75,000 residents of Pawtucket, Rhode Island, comparing their health to that of residents in an unspecified city of comparable size not exposed to such efforts. But until studies provide quantitative evaluation of the hoped-for health gains, a variety of opinions of the wellness movement will continue to co-exist. 14

He concludes by quoting William Hettler, M.D. from the University of Wisconsin at Stevens Point, "You don't have to involve everybody initially to change a society. If you can get ten percent of the people to do something different, that's all it takes, because if it's working, there'll be a ripple effect." 15

The wellness movement may be the ultimate alternative to debilitating lifestyles. As society experiences more effects of the wellness movement, perhaps a drastic reduction in the percentage of illness-oriented lifestyles will result.


15 Ibid.
CHAPTER III

COLLECTION OF THE DATA

Construction of the Instrument

Selected theoretical concepts of wellness as identified in the works of Dunn, Ardell, Travis, Mettler, Corry, and others were synthesized to form the Wellness Survey. (See Appendix A.) All items are phrased in the first person and in positive statements, i.e., "I visit the dentist at least once every year." The participant is to select the response that best reflects the percentage of possible opportunities in which participation occurs in that particular event. The percentages of possible opportunities are rated on a Likert-type scale of five categories: "Almost Always--90% of the time" is rated a five, "Much of the time--75%" is rated a four, "About half of the time" is a three, "Sometimes--25%" is a two, "Almost Never--10% or less" is rated a one. The verbal descriptors are included since probably not all participants will be able to quantify their actions in percentage terms. For example, if the respondent actually visits the dentist once in every two years, the answer would be "About half of the time," indicated by a circle around the "3."

The instrument contains four sections which are social, spiritual, physical, and nutritional. The score of the
instrument is the total of all circled items. Since no des-
signated score on which the process of wellness might exist
is given, the individual may decide whether the score re-
fects a lifestyle of wellness.

The reading level of the Wellness Survey was estimated
through the use of the Fry "Graph for Estimating Readabil-
ity." The instrument is estimated to read at the ninth
grade level.

Selection of the Panel of Judges

A panel of judges validated the content of the study and
thus helped to fulfill its second purpose. Roscoe believes
"Content validity is demonstrated by showing how well the
content of a test samples the situations about which con-
cclusions are to be drawn." He continues "It usually implies
the use of some expertise to define a universe of interest,
the careful drawing of a representative sample of ideas from
this universe, and the preparation of test items that match
these ideas."\(^2\)

Five judges were selected on the basis of their interest
in at least one section of the instrument. Each agreed to
evaluate the entire instrument. The judges were as follows:

Dr. Irma Caton, Chairperson of the Division of Physical
Education, North Texas State University,

1Edward Fry, "Graph for Estimating Readability,"
Rutgers University Reading Center, New Brunswick, N.J.

2John T. Roscoe, Fundamental Research Statistics
Validation of the Instrument

The original instrument was submitted to each judge who was requested to determine whether the items indicated a behavior of wellness, which was defined as a lifestyle process that emphasizes positive health aspects of the body, mind, and spirit. The judge was to indicate by circling a "1" under the heading "Validity Responses" if the item were sufficiently clear in indicating a behavior of wellness. If the item did not indicate a behavior of wellness or did not seem to be appropriate, the judge so indicated by circling a "3." Any item judged to fall outside of these two categories was to be rated a "2." The judges were requested to write comments and suggestions for additions or deletions in the space provided on the Wellness Survey. (See Appendix A.)

Based upon suggestions for change, the original instrument was revised to include fifty-eight items. The revised Wellness Survey was resubmitted to the panel of judges. Four of the judges returned unequivocal approvals for the revised instrument. The fifth judge rejected the instrument stating
instrument stating that it was not written in an appropriate format. An additional judge, Dr. James M. Corry, Division of Health Education, North Texas State University, agreed to judge and subsequently approved the revised instrument.

Determination of Reliability

The test-retest method was used to determine reliability of the Wellness Survey. Roscoe finds "The most obvious method for determining reliability of a test calls for administering it to the same sample on two different occasions, then defining reliability as the Pearson product moment correlation coefficient between the two sets of scores." The suggested time period between the two administrations is ten days, according to McCallon.

The instrument was administered to thirty employees of the intended target population, the municipal government of the City of Denton, Texas. After an interim period of ten days, the second administration was held. Twenty-nine respondents completed the second phase of the test-retest process. The instrument was found to be highly reliable with a Pearson product moment correlation coefficient of .98.

Pilot Study

An informal pilot study was conducted with the cooper-
ation of an adult study group. Their comments concerning the feedback of results contributed to the refinement in the design of the results sheet. All participants received a copy of the Wellness Survey and a results sheet showing the raw score and the percentage score for each sectional total and the grand total. (See Appendix B.)

Selection of the Sample

Under the direction of James M. Corry, Division of Health Education, North Texas State University, arrangements were made for testing the instrument with employees of the municipal government of the City of Denton, Texas. The Director of Personnel, Betty McKean, was granted permission from the management of the city to conduct research involving the insurance records of employees during the period between June 1, 1979, through May 31, 1980. From the parent population of 580 males and females, a random sample of 100 was drawn. A table of random numbers was used to determine which full time employees with at least one year employment would be selected for the sample.

Each member of the sample received a letter informing him of his selection to participate in the study. To meet the consent requirements of the City of Denton and of the Human Subjects Review Board, the employee was to indicate willingness to participate voluntarily in the study by signing an Informed Consent letter (see Appendix B) and by re-
turning it to the Director of Personnel. Sixty-five letters of informed consent were returned.

In order to test Hypothesis II, that the mean scores on the Wellness Survey would be inversely related to the amount of insurance used in the specified one year period, the sample was separated into Group One (persons whose insurance claims totalled $500.00 or more); Group Two, Subgroup 1, (those whose claims were $1.00 to $500.00); and Group Two, Subgroup 2, (individuals who had not filed any claim against the accident and health insurance policy provided by the City of Denton).

Administration of the Instrument

The Director of Personnel arranged for those employees who had indicated their willingness to participate in the study to be excused from their work sites to attend one of two sessions at which the instrument was administered. A total of forty-three subjects in the sample attended the administration sessions. Of the remaining twenty who had indicated by returning their informed consents that they would participate, four completed the Wellness Survey at later dates.

At least two of those who had not attended the specified sessions admitted their participation was precluded by their lack of reading skills. When offered the opportunity to participate with someone reading the Wellness Survey to them, they agreed and subsequently responded to the instrument. An
unsettled political situation between the management of the City of Denton and certain departments was deemed the cause of lack of participation on the part of some subjects who withdrew their voluntary willingness to participate. All non-participating members of the sample were requested to respond to the instrument at their convenience. Only two of these individuals completed the Wellness Survey.

The participants received a copy of their scores which had been charted on the Results Sheet (see Appendix B). They also received a new copy of the Wellness Survey, and a list of suggestions for those who may wish to attempt to improve their scores on the instrument.
CHAPTER IV

ANALYSIS OF THE DATA

Results of the Study

The Wellness Survey was tested to determine whether it could measure the relationship between wellness behaviors and the use of accident and health insurance and whether it could detect those individuals who had received a high level of claim coverage from the insurance program. The biserial correlation coefficient was calculated in order to determine whether a significant relationship existed between wellness behaviors and the use of accident and health insurance for the employees of the City of Denton, Texas. The score on the W.S. was considered the continuous variable while the amount of money involved in claims against the accident and health insurance program was treated as the dichotomous variable. So that dichotomy in terms of insurance claims could be established, an arbitrary figure of $500.00 in a one year period was considered to constitute the category of "high level of use"; those subjects in the sample whose insurance records totalled that amount or more were placed into Group One. All other subjects were placed into Group Two.

That the biserial correlation coefficient was -0.0018 demonstrates a highly insignificant level of relationship between the score on the Wellness Survey and the established
categories of insurance use. The insignificant relationship contributes to the retention of the null hypothesis, which states that no relationship exists between the score on the Wellness Survey and the use of accident and health insurance.

The t-test for two independent samples was calculated to determine whether a significant difference existed between the two population means. The mean scores and standard deviations for each group and the entire sample are presented in Table I.

<table>
<thead>
<tr>
<th>INSURANCE USE GROUP (Dollar Amounts)</th>
<th>MEAN SCORE</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One ($500.00 and up) N=5</td>
<td>216.60</td>
<td>23.44</td>
</tr>
<tr>
<td>Group Two ($0.00 to $500.00) N=42</td>
<td>216.52</td>
<td>22.84</td>
</tr>
<tr>
<td>Subgroup 1 ($1.00 to $500) N=9</td>
<td>207.66</td>
<td>28.80</td>
</tr>
<tr>
<td>Subgroup 2 ($0.00) N=33</td>
<td>218.04</td>
<td>20.81</td>
</tr>
<tr>
<td>Total Sample N=47</td>
<td>216.53</td>
<td>22.62</td>
</tr>
</tbody>
</table>

Hypothesis II stated that the mean scores on the Wellness Survey for Group One would be lower than the mean scores for Group Two. A one-tailed test was used with the level of significance set at p≤.05. The t-test results, which indicate the lack of significant difference between the means,
are presented in Table II.

<table>
<thead>
<tr>
<th>INSURANCE GROUP</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>DEGREES OF FREEDOM</th>
<th>t-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One</td>
<td>216.60</td>
<td>23.24</td>
<td>45</td>
<td>0.0348</td>
</tr>
<tr>
<td>N=5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Two</td>
<td>216.52</td>
<td>22.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=42</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

An additional t-test was calculated to determine whether a significant difference exists between the mean scores of those who used the insurance program and those who did not. The lack of significant difference between the mean scores is presented in Table III.

<table>
<thead>
<tr>
<th>INSURANCE GROUP</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>DEGREES OF FREEDOM</th>
<th>t-VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group One and Group Two, Subgroup 1</td>
<td>210.857</td>
<td>26.39</td>
<td>45</td>
<td>-1.12</td>
</tr>
<tr>
<td>N=14</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group Two Subgroup 2</td>
<td>218.939</td>
<td>20.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=33</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The low t-test values seem to indicate with a degree of certainty that all subjects probably did belong to the same
population, but as Roscoe warns, the investigator is not privileged to make that conclusion.¹

Findings Related to the Purposes of the Study

Purpose 1: To translate selected theoretical descriptions of wellness into discrete components of behaviors which can be assessed by means of a self-report instrument.

Selected descriptions of wellness behaviors were conducive to the construction of the instrument. For example, in his explanation of love and human need for love, Dunn thought that "The need to communicate, to love and to be loved is a universal craving which must be satisfied."² This element of wellness was translated into the item which reads "When I love someone, I demonstrate it in ways that contribute to a mutual understanding."

Hutschnecker, when writing about combating the effects of stress, emphasizes the need for balance in providing for refreshment of the body and mind and believes the following:

If under stress you go without sleep, eat carelessly or irregularly, ignore the symptoms of strain and fatigue, then you are courting disaster. You are aiding and abetting your self-destruction. To let yourself get down because you are under stress is indulging in a self-destructive act.³

¹John T. Roscoe, Fundamental Research, p. 221.
²Dunn, High-Level Wellness, p. 59.
This balance of care for the body and mind is explained in Dunn's "Personal Discipline for Wellness." From these descriptions of wellness, the following item was designed:

"I have ways of reducing my personal tension in manners which are non-destructive to myself and others."

The instrument incorporated items written in the first person with a rating style of response that required an assessment of the percentage of possible opportunities to engage in the activity specified in the item. The rating style was expected to give clarity to the items, especially those which included more than one descriptor of the event.

Purpose 2: To develop a valid and reliable self-report instrument, the Wellness Survey, which can reveal a person's status of wellness behaviors according to selected characteristics of healthful living.

The instrument was written to include selected theoretical descriptions of what is perceived to be a wellness lifestyle. A panel of judges approved the instrument by evaluating the items in terms of their appropriateness within a wellness lifestyle. Thus, content validity was established. The instrument was found to be highly reliable; the calculated Pearson product moment correlation coefficient was .98.

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Purpose 3: To determine the correlation between the wellness behaviors and use of accident and health insurance.

The biserial correlation coefficient was calculated and found to be highly insignificant. The Wellness Survey does not appear to be an appropriate instrument for predicting insurance use.

Purpose 4: To determine whether the instrument can detect those individuals who receive a high level of claim coverage from the insurance program.

The Wellness Survey was found to be ineffective in the identification of those individuals who received a high level of claim coverage. The mean scores for Insurance Use Group One were predicted to be the lowest of the two groups. The lowest mean score was found in that portion of the sample designated as Group Two, Subgroup 1, in which there was a low level of insurance use ($1.00-$500.00).
CHAPTER V

SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

Summary

The focus of this study was to construct a self-report instrument, the Wellness Survey, (see Appendix B) which could assist the individual in analyzing personal lifestyle to determine whether it was oriented toward illness or toward wellness. The first purpose of the study was to translate selected theoretical descriptions of wellness into discrete components of behaviors which a self-report instrument could assess. Upon review of the available literature on wellness from authors who have promoted wellness as an alternative to illness and have written guidelines for the development of wellness lifestyles, it was possible to formulate survey items to which an individual could respond. Dunn, Ardell, Clark,^1,2,3 and others have identified certain health behaviors which enhance wellness lifestyles and therefore are considered to be descriptors of wellness. Selected descriptors of wellness were formulated into positive statements to which the individual responded by rating the percentage of

^1Halbert Dunn, High-Level Wellness.

^2Donald Ardell, High Level Wellness.

^3Carolyn Clark, Enhancing Wellness.
possible opportunities in which participation actually occurred. The statements were grouped into four areas of interest identified as sections: social, spiritual, physical, and nutritional. This structure for a survey was derived from the unpublished "Health Behavior Inventory," written by James M. Corry. In completing the Wellness Survey, each individual was expected to become more aware of the direction toward which present health behaviors might be leading: toward the direction of wellness or toward illness.

The second purpose of the study stated that the instrument was to be a "valid and reliable self-report instrument." The instrument was judged for content validity by a panel of professional persons from the health-related fields of counselor education, health education, nutrition, physical education, and psychology. (See Appendix A.) The original Wellness Survey was revised in response to the judges' suggestions and to their constructive criticisms. The revised Wellness Survey was judged to have demonstrated content validity and was approved by five of the six judges. Reliability was determined through the calculation of a high Pearson product moment correlation coefficient of .98 on the test-retest method. The participants in the reliability study were members of the intended target population--employees of the City of Denton, Texas.

The self-report instrument meant that each individual was expected to read and to respond to each item and to
indicate the resulting scores by totals on a Results Sheet. (See Appendix B.) Each section (Social, Spiritual, Physical, Nutritional) total was marked on the Results Sheet. The design of the Results Sheet presented the percentage score for each raw score. The total of all four sections formed the "Overall Wellness Score." Since no designated score indicating a level of wellness was given, the individual was left to determine whether the score reflected a wellness lifestyle.

The third purpose of the study was to determine the correlation between wellness behaviors and the use of accident and health insurance. Under the direction of James M. Corry and with the cooperation of the Director of Personnel at the City of Denton, Texas, arrangements were made to test the instrument with employees of the municipal government of Denton. A random sample of 100 was drawn from the parent population of males and females who had been employed on a full-time basis for at least one year. Insurance records were made available to the investigator to determine the extent to which subjects in the sample had used the health and accident program. All members of the sample received letters informing them of their selection to participate in the study. To meet the consent requirements of the City of Denton and of the Human Subjects Review Board, the employees were to indicate their willingness to participate voluntarily in the study by signing an Informed Consent Letter (see
Appendix B) and by returning it to the Director of Personnel. Sixty-five letters of informed consent were returned. The survey was administered at City Hall during working hours.

The biserial correlation coefficient was calculated using the score of the Wellness Survey as the continuous variable while the amount of money involved in claims against the accident and health insurance program was treated as the dichotomous variable. So that dichotomy in terms of insurance claims could be established, an arbitrary figure of $500 in a one year period was considered to constitute the category of "high level use"; those subjects in the sample whose insurance records totalled that amount or more were placed into Group Two. The results of the calculation were too low to demonstrate a useful relationship.

The fourth purpose of the study, to determine whether the instrument could detect those individuals who received a high level of claim coverage from the insurance program was precluded by the lack of significant correlation in the third purpose. The t-test for two independent samples was calculated to determine whether a significant difference existed between the two samples. No significant difference was found.

Conclusions

The following conclusions were drawn from this study.

1. Wellness behaviors can be stated in terms that are
conducive to a self-report style of instrument.

2. The items included in the Wellness Survey instrument were judged to be appropriate as indicators of a wellness and, therefore, content validity was demonstrated.

3. The determination of reliability of the Wellness Study instrument was impressive with a high Pearson product moment correlation coefficient of .98; the test-retest method was used with an interim period of ten days.

4. As demonstrated by a highly insignificant biserial correlation coefficient, this instrument is not appropriate for detecting patterns of insurance use.

5. The t-test for two independent samples produced calculated t-values, the investigator believes that the subjects in both groups came from the same parent population; no significant difference existed between the mean scores of the groups. Although larger samples might reveal a difference, this investigator believes that the t-values indicate with practical significance that the samples came from the same population.

Implications of the Study

At the onset of the study, a relationship between the scores on the Wellness Study and the use of accident and health insurance was predicted. Although a significant relationship was not found to exist, the investigator found some encouragement toward further development of the instru-
A long-term study might reveal the efficacy of the wellness lifestyle as a process toward improved health, demonstrated through the lack of insurance use.

If Bruhn and Cordova's assumption that "...more individuals would make choices that enhance their health and well-being if they felt more competent to do so" is true, the wellness approach to health improvement may increase the competence level by emphasizing positive health choices.1 Wellness is designed in the positive style which implies permission for participation. Such participation is expected to make an impact upon the time and energies of the physician. It is assumed that a well-informed patient is more apt to contribute to the efficient use of health care personnel and facilities. Several of the items in the Wellness Survey suggest the individual choice involved in the proper physical care of the body, positive interpersonal relationship skills that may contribute to stress control, reduction of exposure to smoke from burning substances, and an improved nutritional diet. The Wellness Survey appears to be appropriate as a personal guide toward improvement in many health choice areas but it is the individual's perception of that improvement that is most important.

The wellness movement is designed to enhance the individual's awareness level of the various facets that make

1Bruhn and Cordova, "A Developmental Approach," p. 9
up a person and all the environments in which that person functions. The Wellness Survey is designed to assist the individual in the enhancement of such awareness levels. Individual responsibility must be emphasized if the prevention of illnesses resulting from lifestyle choices is to be accomplished. The wellness approach lacks the threat of disease development and the fear tactics associated with health hazard appraisals. Hochbaum's reluctance to live his life revolving "...entirely around fears of possible dangers and crises" seem indicative of the negative effects from such appraisals.\(^2\) In view of Norman Cousins' successful experiences with his "positive emotions" approach to conquering a crippling disease, ankylosing spondylitis, teaching people to accept the wellness lifestyle behaviors may be possible.

Prior to the development of the wellness approach to health education, the emphasis of personal responsibility toward physical fitness seemed exclusively aimed toward the athlete and the recovering heart patient. Considering the present impact of personal conditioning and physical fitness programs, this investigator questions whether "wellness" will be perceived to be especially designed for the affluent. The use of an instrument such as the Wellness Survey should rein-

\(^2\) Gregory Hochbaum, "An Alternative Approach," p. 197

\(^3\) Norman Cousins, Anatomy of An Illness As Perceived By the Patient (New York, 1979).
force the practice of wellness lifestyle development at all levels of society. The holistic view of the total person as a unit functioning within the individual self, with the family, at work, within the community and society is necessary for the wellness process to become fully engaged. All members of society must be viewed as individuals who can and will accept the responsibility of contributing in order for the level of well-being of the total society to reach toward its potential. To achieve the status of "freedom-from-disease" is not enough of a goal although it is often perceived as "the ultimate level of health."

Recognizing that disease control may truly have its foundations in the development of individual awareness, the wellness movement promotes health behaviors as a process toward a higher level of wellness, higher than a status of "being healthy." "Disease and death processes" are at one end of a continuum of health status and "wellness processes" are at the other end.

The Wellness Survey may be a positive contribution to the priority for major emphasis as established in 1980 by the National Center for Health Education. One of the three priorities was "To look at the attributes of 'wellness' and 'good health' to see if they could be identified and incorporated into the center's activities."^4

^4Sue Conway, "National Center for Health Education," p.11.
A slightly revised version of the Wellness Survey is currently used in health education courses at Emory University to serve as an individual evaluative instrument and as a guide throughout the course of instruction. As a main emphasis, wellness appears to have been accepted by many of the students although the greatest skepticism seems to be among the premedical students. This investigator expects that this exposure to the wellness approach of health education will make a positive impact upon personal lives of the students and ultimately upon their effectiveness as potential leaders and models.

Recommendations

The study revealed a number of problems with this type of investigation. The following suggestions are offered as recommendations for further study in the areas of wellness and lifestyle investigations.

1. Replicate the study with the following changes:
   a. Establish three insurance use categories; high level of use to equal or exceed $500 per year, low level of use to include $1.00 and up to $500 per year, and non-use,
   b. Extend the random sampling to include an equal number of subjects in each insurance category,
   c. Use stratified random sampling to include all representative social categories in the parent
d. Extend the time period of insurance use to three years.

2. A long-term study of lifestyles to compare the effects of the perceived negatively-oriented health hazard appraisal programs with the perceived positively-oriented wellness approach programs.

3. Replicate the study with the use of a commercially-scored health hazard appraisal instrument instead of the Wellness Survey to determine whether individuals in the high-use insurance category can be detected.

4. An experimental study comparing the effects of the traditional approach to health education to the effects of the wellness approach. This study might be appropriate for use with any age group, however, adjustments in the Wellness Survey would be necessary for persons who read below the ninth grade. The study would require at least a time period of ten years, assuming four years of instruction and a follow-up after six years of noninstructional living time.
The Panel of Judges

The following professional persons from health-related fields judged the original Wellness Survey in terms of establishing content validity and thus helped to fulfill the second purpose of the study.

1. Dr. Irma Caton, Chairperson of the Division of Physical Education, North Texas State University. Dr. Caton contributed to the clarity of items in each section, specifically to those items in the Physical area.

2. Dr. James M. Corry, Health Educator in the Division of Health Education, North Texas State University. Dr. Corry suggested revisions of items in the Spiritual, Physical and Nutritional sections.

3. Dr. Joseph D. Dameron, Department of Counselor Education, North Texas State University. Dr. Dameron's comments provided clarity to items in each section of the instrument, especially to the items in the Social and Spiritual sections.

4. A. Nell Davis, Department of Home Economics, North Texas State University. Ms. Davis made specific contributions to the items in the Nutritional section, as well as items in each of the other sections.

5. Dr. Frances Mayo, Psychologist in private practice, Lewisville, Texas. Dr. Mayo suggested revisions in the order of the items in the Social and Spiritual sections. She also made specific corrections to some of the terms used in
certain items.

6. Dr. Betty Tevis, Chief of Heart Health Education, American Heart Association, Dallas, Texas. Dr. Tevis made several constructive suggestions for the revision of items in the Physical and Nutritional sections; especially those items relating to cardiovascular fitness.

The suggestions and revisions were incorporated into the revised W.S. and resubmitted to the judges. One of the judges chose to not approve the revised instrument stating it was written in an inappropriate format.
July 2, 1980

Dr. Frances Mayo
1020 West Main Plaza
Lewisville, TX 75061

Dear Dr. Mayo,

Thank you for accepting the task of judging the enclosed instrument. The instructions for rating the items are on the front cover of the booklet.

This instrument is designed to be administered to the employees of the City of Denton, Texas. The employees will be asked to rate each behavior in terms of how much time they spend performing each task. They will be asked to respond to each item by circling a number that is provided. The instrument contains fifty-five items that should be answered in approximately twenty minutes.

Wellness is a process, a style of living, that includes a continual effort toward balance between the body, mind, and spirit of the individual and his total environment. It is believed that the achievement of such a balance is a prerequisite for further development of the individual. This instrument includes items directed toward what the individual does for himself and for others in terms of healthful behaviors. Therefore, the instrument is written in the positive style in order to serve as an educational tool.

To obtain maximum validity of the instrument, suggestions of additional items would be appreciated if you find a significant area to have been excluded. An additional page is provided for this purpose, or you may write in the space between items.

Your cooperation in this study is greatly appreciated.

Sincerely,

Dixie L.C. Hess
Division of Health Education
North Texas State University
Denton, Texas
Please read the item and judge whether the item indicates a behavior of wellness. Wellness is a lifestyle process that emphasizes positive health aspects of the body, mind, and spirit.

If you judge the item to be sufficiently clear in indicating a behavior of wellness, circle the "1" in the left margin. If the item does not indicate a behavior of wellness and does not seem to be appropriate, circle the "3" in the left margin. If you are not certain about the item in terms of "1" or "3" circle the "2."

Please comment on any items you judge to be "2s" or "3s." A space is provided between items for your comments. Additional items or comments may be placed on the additional page provided at the end of the instrument.

This instrument is designed to be administered to a sample of a population that has a wide range of reading and comprehensive abilities. It is written in the positive style to serve as an educational tool. It is hoped that exposure to such suggestions will make a positive influence on the health behaviors of the individual.
Dear Participant:

This Wellness Survey is designed in the positive style to give you credit for behaviors that may enhance selected qualities in your life. It is important that you select the answer that best reflects the AMOUNT OF TIME you spend in each behavior. Some of the items may require that you figure a combination of work and leisure time; please respond in terms of your TOTAL LIVING TIME regardless of where the behavior occurs.

Thank You.

Example:

If you maintain your weight to within five pounds of the recommended weight for someone your height and build, you will circle the 5.

If you are slightly overweight but by just a few pounds so you are often within the recommended weight, circle the 4.

If you just can’t get within that five pound margin, circle the 1.

( CIRCLE THE ANSWER NUMBER TO SHOW YOUR CHOICE )

2 3 4 3 2 1

SOCIAL:

1. I am aware of my needs for a special person in my life. I do what I feel will help that relationship to grow toward the best friendship I have ever known. 5 4 3 2 1

2. I express my feelings and opinions in a manner that can be understood by others. 5 4 3 2 1

3. I willingly listen and, with an open mind, examine my friend’s point of view. 5 4 3 2 1

4. I willingly listen and, with an open mind, examine the points of view of most others, even those I don’t know well. 5 4 3 2 1

5. I live and work with others as I want them to live and work with me. 5 4 3 2 1
SOCIAL-Continued

6. When I love someone, I show it in ways that contribute to a mutual understanding.

7. I participate in sexual activities that are wholesome and satisfying for my partner and myself.

8. I recognize my needs for social support (those group activities that I do in addition to my family responsibilities) and I gain encouragement from them.

9. Without expecting a reward, I give service (to do something for someone) whenever it is reasonable for me to do so.

10. I accept services from others, and I understand their needs to give service to someone.

11. Apart from the events at work, I presently enjoy at least two activities that I will be able to do when I retire.

12. I encourage others to learn new hobbies and to expand interests that may make retirement more enjoyable and continue their growth in living.

13. I presently contribute (or my employer does) to a financial plan that will make my retirement more enjoyable for myself and my family.

14. I get rid of my personal tension in a manner which is non-destructive to myself and others.
WELLNESS SURVEY - 3

SPIRITUAL:

2 3 15. I believe in a Higher Power and express my belief each day. 5 4 3 2 1

2 3 16. At least once a day I meditate quietly until I feel I have good control of myself. 5 4 3 2 1

2 3 17. I have a purpose for living and continually make progress toward fulfilling that purpose. 5 4 3 2 1

2 3 18. I am happy to be alive and do what I can to remember that happiness when things do not go as well as I'd like them to go. 5 4 3 2 1

2 3 19. Regardless of the weather, I spend at least 30 minutes out of doors each day, doing something in the yard or just observing nature. (This does not include time in a car or other enclosed vehicle.) 5 4 3 2 1

2 3 20. I often get new and exciting ideas about my life and use them to improve the way I live. 5 4 3 2 1

2 3 21. I enjoy a good balance between my work and my play; I have equal energy for both. 5 4 3 2 1

2 3 22. I continue to grow by adding new interests and skills that lengthen the list of things I can do. 5 4 3 2 1

2 3 23. When I get "bored" or "dissatisfied" with my situation, I make adjustments, either in the situation or in my thinking until there is a balance and the interest and satisfaction return. 5 4 3 2 1
WELLNESS SURVEY - 4

<table>
<thead>
<tr>
<th>Physical:</th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>24. I wear protective clothing or other gear when I'm doing something</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>that has danger involved—motorcycling, water skiing, etc.</td>
<td></td>
<td></td>
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<tr>
<td>25. I wear the seat belt if it is provided in the vehicle when I drive</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>or ride as a passenger.</td>
<td></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>26. I encourage others to wear their seat belts when riding with me.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>27. I know and follow all the rules of driving wherever I travel.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>28. I keep all the equipment I use in proper working order: car,</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>machines, tools, etc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>29. When around water, I follow the suggested safety procedures,</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>such as swimming only in groups of three or more, or wearing a life</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>jacket when in a boat or skiing.</td>
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</tr>
<tr>
<td>30. I carefully monitor the amount of alcohol I drink.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>31. If I serve alcohol to others, I monitor how much and how often</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>they are served to prevent intoxication or impaired judgment.</td>
<td></td>
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<tr>
<td>32. I ride only with a driver who has not been drinking alcohol or</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>using drugs that may impair driving judgment.</td>
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</tr>
<tr>
<td>33. ANSWER ONLY ONE OF THESE ITEMS:</td>
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</tr>
<tr>
<td>I am a non-smoker and I avoid breathing smoke-filled air.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>OR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am a smoker, but each day I reduce the amount of time I smoke or</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>am exposed to smoke-filled air.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PHYSICAL -- Continued

2 3 34. I maintain my weight to within five pounds of what is considered to be normal for a person my height and build.

2 3 35. I exercise at least five (5) times a week for twenty (20) minutes each time through activities such as running, fast walking, jogging, cycling, swimming, basketball, handball, racketball, or some similar sport.

2 3 36. Before any strenuous exercise, I warm-up or stretch the part of the body that will be used. If I will be running, I run-in-place, or touch my toes to stretch the backs and insides of my legs.

2 3 37. In addition to the exercising I get, I walk whenever it is reasonable even though it takes more time than riding.

2 3 38. When I lift anything heavy, I straighten my back and use my legs to do the lifting. This prevents my back from becoming strained.

2 3 39. If my weight changes by five pounds or more, I seek medical attention to determine why (unless I've changed my diet or exercise program to cause the difference.

2 3 40. I have a complete physical exam at least once every three years, including vision and hearing tests. I visit the dentist every year.

2 3 41. When my body signals that something isn't right, I get the proper professional attention right away. A lump in my breast, blood in my urine, or unexplained changes in my bowel regularity are examples of signals that I would have checked immediately.
WELLNESS SURVEY - 6

Almost Always

Much of the time

Half of the time

Sometimes

Almost Never

2 3 42. I follow all the instructions as suggested by the physician and pharmacist (doctor and druggist) when I take any medications.

2 3 43. I inform the doctor of all other medicines (aspirin, pills, liquids, everything) I am taking when he suggests that I need a medicine.

2 3 44. I protect myself and others by throwing away old medicines and keeping the ones I'm using out of the reach of children.

2 3 45. I know how to and am able to properly perform mouth-to-mouth resuscitation for someone who has stopped breathing for himself.

2 3 46. I know how to and am able to perform cardiopulmonary resuscitation (CPR) for someone whose heart has stopped.

---

NUTRITIONAL:

2 3 47. I eat a variety of foods each week that includes fresh fruits, fresh vegetables, some meat and fish, eggs, some dairy products, and breads.

2 3 48. I drink at least 8 glasses (12 oz. each) of liquid(s) each day throughout the year.

2 3 49. I add very little salt to my food at the table, since I know some salt has been used in the preparation of the food.

2 3 50. I add very little sugar, since I know it may already be cooked in the foods.

2 3 51. I eat only foods that I believe are properly prepared and protected from poisons.
WELLNESS SURVEY - 7

1 2 3 52. I avoid fatty foods and I know about the dangers of eating animal fats in a concentrated form such as meat fat.

1 2 3 53. I avoid eating too much at any one time.

1 2 3 54. I avoid eating or drinking anything that is very hot or very cold.

1 2 3 55. I thoroughly chew firm foods until the saliva in my mouth is well-mixed with the food, then I swallow.

JUDGES COMMENTS
Letter indicating approval or disapproval of the Revised W.S.

July 1980

Judge's Address

Dear (Judge's Name),

Please indicate your approval or disapproval of
the revised Wellness Survey by signing on the appropriate
blank below.

Thank you for your cooperation and help in this study.

Sincerely,

Dixie L. C. Hess

Approval of Content Validity

__________________________  Disapproval of Content Validity

Signature

Date
July 1980

Dear [Name],

You have been selected to take part in a survey of certain health practices. The results of this survey will hopefully be helpful to you and your family, as well as to the City of Denton in their efforts to possibly develop a Health Enhancement program in the near future.

You will be asked to respond to a pencil and paper questionnaire that will include things you do for your health. You will be asked to rate how much or how often you perform the activities. Some activities may not be part of your practices, but are questions that deal with those items "If" or "When" they occur. You will need to determine the extent to which you would perform those activities if or when they should occur.

The activities are written in the positive style to reinforce the good things you do for yourself and others. Each section of the survey is concerned about how you keep yourself and others around you "well" -- it is a "Wellness Survey" about health. Some of the items may inspire you to try new ways of doing things that will be better for your health. We hope you will get some good ideas from this activity.

Your name will not be used on the survey; you will be asked to use the last four digits of your Social Security number. You will receive feedback from your survey in the form of:

1. Your Results of the ratings
2. A copy of the Wellness Survey
3. Suggestions about ways to change some behaviors

With the results from the Survey, you will be able to review your activities and recheck your progress periodically.

You have a very special part in this Survey; your name was selected through a process that included the entire population of City Employees. Only a portion of the total has been selected to participate. If you do not care to take part in the Survey, you have the right to stop at any time.

We hope you will think about the valuable part you can have in being selected and agree to help in this Wellness Survey.

THANK YOU

[Signature]
James M. Conroy, Ph.D.
Division of Health Education
North Texas State University

[Signature]
Dixie Reda, M.A.
Division of Health Education
North Texas State University

PLEASE READ THE INFORMED CONSENT LETTER AND SIGN IN THE LOWER RIGHT SIDE WHERE IT READS: Date and Subject. Return the signed INFORMED CONSENT to Personnel before August 1.
INFORMED CONSENT
FORM NO. 2
JULY 1980

NAME

I hereby give consent to Dixie Hess to conduct the following investigational procedure:

A WRITTEN SURVEY CONCERNING MY HEALTH-RELATED BEHAVIORS TO BE GIVEN DURING WORK HOURS AS APPROVED BY THE CITY OF DENTON, FOR THE PURPOSE OF IDENTIFYING POSSIBLE ELEMENTS OF AN EDUCATIONAL PROGRAM THAT MAY BE MADE AVAILABLE TO THE EMPLOYEES OF THE CITY OF DENTON, TEXAS.

I have seen a clear explanation and understand the nature and purpose of the Wellness Survey. I have seen a clear explanation and understand the benefits to be expected. I understand that the survey to be conducted is investigational and that I may withdraw my consent for my status.

With my understanding of this, having received this information and satisfactory answers to the questions I have asked, I voluntarily consent to the survey designated above.

________________________
Date

________________________
Subject

________________________
Department/Work Area
WELLNESS SURVEY

Dear Participant:

This Wellness Survey is designed in the positive style to give you credit for behaviors that may enhance selected qualities of your life. It is important that you select the answer that best reflects the percentage of possible opportunities that you spend in each behavior. Some of the items may require you to figure a combination of work experiences and those that occur in various other places. Please respond in terms of your present style of living.

Thank You.

CIRCLE THE NUMBER TO SHOW YOUR ANSWER

Examples:

A. If you maintain your weight to within five pounds of the recommended weight for someone your height and build, you will circle the 5.

If you are slightly overweight but just by a few pounds so you are often within the recommended weight, circle the 4.

If you can't get within that five pound margin, circle the 1.

B. If you meditate at least once a day, circle the 5.

If you meditate about three times a week, circle the 3.

SOCIAL:

1. I express my feelings and opinions in a manner that can be understood by others.

2. I willingly listen and, with an open mind, examine the points of view of most others, even those I don't know well.

3. I live and work with others as I want them to live and work with me.

4. I am aware of my needs for a special person in my life. I do what I feel will help that relationship to grow toward the closest friendship I have ever known.

5. When I love someone, I demonstrate it in ways that contribute to a mutual understanding.
### SOCIAL—Continued:

6. I participate in sexual activities that are wholesome and satisfying for my partner and me.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

7. I recognize my needs for social support (those group activities that I do in addition to my family and work responsibilities) and I gain encouragement from them.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

8. Without expecting a reward, I provide services (do something for someone) whenever it is reasonable for me to do so.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

9. I accept services from others, and I understand their need to give service to someone.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

10. I have ways of reducing my personal tension in manners which are non-destructive to myself and others.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

11. Apart from the events at work, I presently enjoy at least two activities that I will be able to continue when I retire.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

12. I presently contribute (or my employer does) to a financial plan that will make my retirement more enjoyable for me and my family.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

### SPIRITUAL:

13. I believe in a Higher Power and express my belief in the way I live.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

14. I meditate at least once a day.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

15. I have a purpose for living and continually make progress toward fulfilling that purpose.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

16. I am happy to be alive. I make it a habit to remember that happiness when things do not go as well as I'd like them to go.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

17. Weather permitting, I spend at least 30 minutes out of doors each day, doing something in the yard or just observing nature. (This does not include time spent in a car or other enclosed vehicle.)  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1

18. I enjoy a good balance between my work and my play; I give equal energy to each.  
   - CIRCLE THE NUMBER TO SHOW YOUR ANSWER: 5 4 3 2 1
WELLNESS SURVEY - 3

Almost Always

Almost Never

SPIRITUAL -- Continued:

19. I often get new and exciting ideas about my life and use them to improve my lifestyle. 5 4 3 2 1

20. I continue to grow by adding new interests and skills to the list of things I can do. 5 4 3 2 1

21. If I get "bored" or "dissatisfied" with my life situation, I make adjustments, either in the situation or in my thinking, until there is a balance and the interest and satisfaction return. 5 4 3 2 1

PHYSICAL:

22. I wear protective clothing or appropriate gear when I'm doing something that has danger involved, such as motorcycling, lawn-mowing, using power-tools, etc. 5 4 3 2 1

23. When I lift anything heavy, I straighten my back, bend my knees, and use my legs to do the lifting to prevent my back from becoming strained. 5 4 3 2 1

24. I wear the seat belt that is provided in the vehicle whether I drive or ride as a passenger. 5 4 3 2 1

25. I encourage others to wear their seat belts whenever they travel. 5 4 3 2 1

26. I am aware of and follow the rules of safe driving wherever I travel. 5 4 3 2 1

27. I keep the equipment I use in proper working order; car, machines, tools, etc. 5 4 3 2 1

28. When around water, I follow the recommended safety procedures, (such as swimming in groups of three or more and wearing a life jacket when in a boat or sailing, etc.) 5 4 3 2 1

29. I limit the amount of alcohol I drink in order to control its effects on my physical responses. 5 4 3 2 1

30. If I serve alcohol to others, I am aware of how much and how often they are served in an attempt to prevent intoxication or impaired judgment. 5 4 3 2 1

31. I ride only with a driver who has not been drinking alcohol or using drugs that may impair driving judgment. 5 4 3 2 1
PHYSICAL-Continued:

32. **ANSWER ONLY ONE OF THESE ITEMS:**

I am a non-smoker and I avoid breathing smoke-filled air.  
5 4 3 2 1  

(OR)

I am a smoker, but each day I reduce the amount of time I smoke and am exposed to smoke-filled air.  
5 4 3 2 1  

33. I regularly have my blood pressure checked.  
5 4 3 2 1  

34. I maintain my weight to within five pounds of what is considered to be normal for a person my height and build.  
5 4 3 2 1  

35. If without explanation, my weight suddenly changes (more than five pounds in two weeks) I seek medical attention to determine the cause.  
5 4 3 2 1  

36. Before any strenuous exercise, I warm-up or stretch the part of the body that will be used in the exercise.  
5 4 3 2 1  

37. I exercise at least three times a week for periods of 15 to 30 minutes each time through vigorous activities that I enjoy.  
5 4 3 2 1  

38. In addition to the exercise I get, I walk whenever it is reasonable even though it takes more time than riding.  
5 4 3 2 1  

39. I have a complete physical exam at least once every three years; including vision and hearing tests.  
5 4 3 2 1  

40. I visit the dentist at least once every year.  
5 4 3 2 1  

41. When my body signals that something isn't right, I seek medical attention right away. (Some examples of signals are: a lump in the breast, a burning pain when urinating, blood in the urine, unexplained changes in my bowel habits.)  
5 4 3 2 1  

42. When I have an allergic reaction, I seek medical attention to determine the reason so I can avoid the cause.  
5 4 3 2 1  

43. When I take any medications, I follow the instructions as recommended by the doctor, pharmacist, and label. (This includes over-the-counter substances.)  
5 4 3 2 1
### PHYSICAL - Continued:

44. I inform the doctor of other medicines (aspirin, pills, liquids, etc.) I am taking when he prescribes a medication for me.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

45. I protect myself and others by throwing away out-of-date medicines and keeping all others out of the reach of children.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

46. I get adequate rest and sleep so I awaken refreshed and ready for the new day.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

47. I know how to and am able to properly perform mouth-to-mouth resuscitation for someone who has stopped breathing.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

48. I know how to and am able to properly perform cardiopulmonary resuscitation (CPR) for someone whose heart has stopped.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

### NUTRITIONAL:

49. I eat three good meals each day.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

50. Each day I eat about four servings of fruits and/or vegetables.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

51. Each day I consume about 2 cups of milk in some form, such as liquid, cheese, other foods that contain milk.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

52. Each day I eat about two servings from the following: poultry, eggs, fish, meat, dried beans or peanut butter.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

53. I am aware of the dangers of eating too much cholesterol and saturated fat, and I limit the amount I eat.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

54. Each day I eat about four servings of breads and/or cereal foods.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

55. I drink about one quart of liquids each day throughout the year.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

56. I avoid adding salt to my food since I know salt may have been used in the preparation of the food.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

57. I avoid sugar since I know it adds calories but has little other nutritive value.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1

58. I am aware of the nutritional information on food labels and use that information to plan my meals and snacks.  
   - Almost Always: 5
   - Very Often: 4
   - Fairly Often: 3
   - Sometimes: 2
   - Rarely: 1
You have rated each behavior in terms of your present living patterns. The score for the Section is the total of the ratings (numbers circled). The Overall Wellness Score is the total of all Sections.

It is your judgment that determines whether you are living in a process of Wellness or one of Illness. A low score in any Section may indicate a need for further investigation in that area. WELLNESS IS A PROCESS! It is not something that can be achieved and then neglected, a process must be continued. The key to success in wellness is to live in a balanced way with periodic reviews of your behavior in terms of your total environment. YOU ARE THE DIRECTOR OF YOUR LIFE!! This survey is a beginning of the process of wellness; these behaviors can be changed and improved as only you want them to become different.

THE HANDWRITTEN FIGURE INDICATES YOUR SECTIONAL TOTAL:

<table>
<thead>
<tr>
<th>SOCIAL SECTION TOTAL</th>
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</thead>
<tbody>
<tr>
<td>Percentage Score:</td>
</tr>
<tr>
<td>100 90 80 70 60 50 40 30 20</td>
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<td>Raw Score:</td>
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<td>50 54 48 42 36 30 24 18 12</td>
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<th>SPIRITUAL SECTION TOTAL</th>
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<tbody>
<tr>
<td>Percentage Score:</td>
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<td>100 90 80 70 60 50 40 30 20</td>
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<td>Raw Score:</td>
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<th>PHYSICAL SECTION TOTAL</th>
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<td>135 122 108 95 81 68 54 41 27</td>
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<th>NUTRITIONAL SECTION TOTAL</th>
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</tr>
<tr>
<td>Raw Score:</td>
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<tr>
<td>50 45 40 35 30 25 20 15 10</td>
</tr>
</tbody>
</table>

YOUR OVERALL WELLNESS SCORE:

| Percentage Score:     |
| 100 90 80 70 60 50 40 30 20 |
| Raw Score:            |
| 290 261 233 203 175 145 116 87 58 |
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