

A

**STUDY OF HEALTH
PRACTICES AND OPINIONS**

- Final Report -

Conducted for:

**FOOD AND DRUG ADMINISTRATION
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE**

CONTRACT NO. FDA 66-193

June 1972

BIBLIOGRAPHIC DATA SHEET	1. Report No. FDA-PA-72-01	2.	3. Recipient's Accession No.
4. Title and Subtitle A Study of Health Practices and Opinions		5. Report Date June 1972 6.	
7. Author(s)		8. Performing Organization Rept. No.	
9. Performing Organization Name and Address National Analysts, Inc. 400 Market Street, Philadelphia, Pa. 19106		10. Project/Task/Work Unit No. 11. Contract/Grant No. FDA 66-193	
12. Sponsoring Organization Name and Address Food and Drug Administration 5600 Fishers Lane Rockville, Md. 20852		13. Type of Report & Period Covered Final Report 14.	
15. Supplementary Notes - Jointly funded by seven Government agencies: National Institute of Mental Health, Food and Drug Administration, Administration on Aging, National Inst. of Child Health and Human Development, Vocational Rehabilitation Adm., Agricultural			
16. Abstracts Research Service (USDA), Veterans Administration. A large national survey to investigate the nature and prevalence of fallacious or questionable health beliefs and practices, and susceptibility to them. Area probability techniques were used to produce a representative sample of the U.S. adult population who were interviewed (summer 1969) with an extensive questionnaire. Areas of investigation include: Use of vitamin pills and other nutritional supplements, especially with the expectation of specific, noticeable health improvements and without a physician's guidance; use of "health food"; weight reduction practices; use of laxatives or other aids to bowel movements; self-diagnosis of ailments; self-medication for common ailments; self-medication for serious ailments; practices in the diagnosis and treatment of arthritis/rheumatism; practices in the diagnosis and treatment of cancer; health practitioners used; hearing aids and medication; "aids" to quitting smoking; general health-related attitudes and opinions.			
17. Key Words and Document Analysis. 17a. Descriptors Susceptibility to health fallacies and misrepresentations; quackery; empiricism; self-diagnosis; self-medication; health education; vitamins; health foods; weight reduction; laxatives; arthritis treatments; cancer treatments; health practitioners; psychological orientations regarding personal health; hypochondria; psychosomatic effects; demographic factors affecting health behavior; aging as a factor in health beliefs and practices. 17b. Identifiers/Open-Ended Terms 17c. COSATI Field/Group			
18. Availability Statement Release unlimited		19. Security Class (This Report) UNCLASSIFIED 20. Security Class (This Page) UNCLASSIFIED	21. No. of Pages 360 365 22. Price

SUMMARY AND CONCLUSIONS

Purpose of the Study

To investigate fallacious or questionable health beliefs and practices, and susceptibility to them.

Beliefs and/or practices in the following areas were singled out for investigation:

- Use of vitamin pills and other nutritional supplements, especially with the expectation of specific, noticeable health improvements and without a physician's guidance
- Use of "health food"
- Weight reduction practices
- Use of laxatives or other aids to bowel movements
- Self-diagnosis of ailments
- Self-medication for common ailments
- Self-medication for serious ailments
- Practices in the diagnosis and treatment of arthritis/rheumatism
- Practices in the diagnosis and treatment of cancer
- Health practitioners used
- Hearing aids and medication
- "Aids" to quitting smoking
- General health-related attitudes and opinions

Methodology

Data were collected from two sources:

- A large national survey, using area probability techniques to produce a representative sample of U.S. adults, who were interviewed with an extensive questionnaire.

- Individual and group depth interviews with people known or suspected to hold questionable beliefs or to have engaged in questionable practices.

Conclusions from these sources are discussed separately.

Conclusions from the Survey Data

The areas investigated are presented below, with estimates of the numbers of people involved in each area and findings about their characteristics. The number of people engaged in a questionable practice is, of course, a function of the definition of what is questionable, so the definitions used are critical in interpreting the numbers reported. Intentionally, the definitions are conservative: they tend to exclude, rather than include, borderline circumstances from the category.

Nutrition Supplements (Part II, Chapter 2)

Three-fourths of the public believe that extra vitamins provide more pep and energy, the most common of the

misconceptions investigated. One-fifth agreed that even such diseases as arthritis and cancer are caused, at least in part, by vitamin or mineral deficiencies.

Twenty-six percent of the sample, representing about 35 million adults, reported having used nutritional supplements (vitamins and/or minerals, in pills or liquid tonics) expecting actual observable benefits, and without a physician's advice.

Individuals in this category have a greater-than-average general tendency toward self-medication. In addition, those whose use involved vitamin pills showed a tendency to rely on their own judgments over conflicting opinions from physicians, and those whose use involved tonics were more critical of physicians, and more impressed by questionable medicine advertising and labeling, than people in general.

About half of the users were satisfied that the products did what they had hoped, and the higher the expectation, the higher was the incidence of reported satisfaction.

Food, Nutrition, and "Health Food" (Part II, Chapter 3)

About one-tenth of the sample said they had eaten "food advertised or labeled as 'organic' or 'natural' food, like health food stores sell". Half of these, representing about seven million adults, had done so more than five times. Nearly all the health food users were acting without a physician's advice, and a majority of them really expected to be "helped" by the health food.

Unlike most nutrition supplement users, health food users are distinguished by negative opinions about the healthfulness of the regular food supply, inflated ideas on the benefits of vitamins and minerals, and a belief that faulty diet is the cause of most health problems. They seem more susceptible to testimonials in medicine advertising.

Committed users (those really expecting to be helped) and non-committed users (those thinking of it as just something to try) were distinguished by somewhat different patterns. The committed users are less prone to self-medication than the total sample; the non-committed users are more prone. The committed users reported more worry about their health than the total sample, while simultaneously claiming to have better health. The committed users are more critical of doctors and the medical profession in general than the total sample. Both user groups are especially likely to rely on their own judgment when it conflicts with that of a physician.

Weight Control (Part II, Chapter 4)

About half the U.S. adult population has been concerned at some time about reducing or avoiding weight gain. Such concern is most common among women and those in the upper education and income categories.

While over three-fourths of the sample agreed that eating less is essential for weight reduction, over one-third agreed with various fallacious concepts of weight control.

About six percent of the sample, representing about eight million adults, were classified as having followed one or

Self-Diagnosis (Part II, Chapter 6)

About 12 percent of the total sample, representing about 16 million adults, reported they had arthritis or rheumatism, asthma, allergies, hemorrhoids, heart trouble, high blood pressure, or diabetes, and that the condition had never been diagnosed by a physician.

The self-diagnosers were older than the total sample, but so were those who had the ailments in question diagnosed by a physician. Attitudinally, they are distinguished only in areas that seem directly related to the self-diagnosis tendency.

Self-Medication for Common Ailments (Part II, Chapter 7)

Twelve percent of the sample, representing about 16 million adults, indicated they would self-medicate, without seeing a doctor, for longer than two weeks for one or more of the following ailments: sore throat, coughs, sinus trouble, head colds, hay fever, skin problems, "helping you sleep", or upset or acid stomach. (Depending upon the ailment, from one-fourth to nearly three-fourths of the sample said they typically do so for more than three days.)

Questionable self-medicators (longer than two weeks) are younger than the general population. Apart from a somewhat greater tendency to be favorably impressed by medicine advertising and labeling claims -- and this difference was not very large -- they were not very distinguishable from people in general, not even in such areas as attitude toward the medical profession. Prolonged self-medication for common ailments may therefore relate more to situations than to fundamental characteristics or orientations.

Self-Medication for Serious Ailments (Part II, Chapter 8)

Any self-medication for heart trouble, high blood pressure, or diabetes is questionable, as is self-medication of asthma, allergies, or hemorrhoids when a cure, rather than symptomatic relief, is expected. Seven percent of the total sample, representing about nine million adults, was classified in one or another of these categories.

The questionable self-medicators were compared to people with the same ailments without questionable self-medication. They tend to be men more often than women, but other demographic differences were not very apparent. Nor were they distinguished in the areas of attitude and orientation investigated, not even on a generalized tendency for self-medication of common ailments.

Arthritis-Related Practices (Part II, Chapter 9)

One-fourth of the sample claimed to have arthritis, rheumatism, or some similar disease. About one-fifth of these, however, representing about seven million adults, had not had the condition diagnosed by a physician. Nearly one-fifth of all the "sufferers" had not received treatment from a physician.

Over one-fifth of the reported sufferers said they had used something supposed to "cure" their arthritis/rheumatism, not just help the symptoms. A majority of these were referring to something supplied through a physician: there is evidently much confusion about the distinction

between cure and relief. About four percent of the sufferers, representing about a million people, had used something they thought was a cure that was not obtained through a physician. Nine percent of the reported sufferers, representing about 2½ million people, had tried diet or special foods. Thirteen percent of the sufferers, representing about four million adults, reported having tried something to "lubricate their joints". One-tenth of the sufferers, representing about three million adults, had tried electrical massagers or vibrators for their arthritis/rheumatism. About one percent of the sufferers, representing perhaps a third of a million people, said they had worn brass or copper jewelry for their arthritis/rheumatism.

Those in the categories described above were compared to other sufferers. While the results varied somewhat from one category to another, in most comparisons the followers of questionable practices were older, of lower socioeconomic status, worried more about their health (though not evaluating it as poorer), and more critical of doctors.

Cancer-Related Practices (Part II, Chapter 10)

As would be expected in a random household survey, very few cancer victims were interviewed, and not enough followers of any practice that might be judged questionable were available for interview.

Investigating general attitudes, a hypothetical "cancer cure" controversy was described in the interview and all respondents were asked to take sides between "most scientists and doctors", who say the "cure" is worthless, and the patients of "a few doctors" who say it saved their lives. Nearly one-fourth of the sample sided with those who claimed a cure, and another 18 percent said they did not know. Thus, 42 percent of the sample, representing over 50 million adults, would not be convinced by what was presented as nearly unanimous expert opinion. Only 45 percent of the total sample thought the medicine should be banned by law.

Health Practitioners (Part II, Chapter 11)

Virtually everyone in the United States has been examined by a medical doctor at some time. Any exceptions would be living in such unusual circumstances that a household survey would almost certainly not reach them. About one-fifth of all respondents had ever gone to a chiropractor, and about one-fourth of them, representing about twenty million people, had not restricted their use to back, neck, muscle, and joint problems. Chiropractor patients tend to be older people. The total group of patients has above average education and income, if anything, but those consulting chiropractors for conditions outside the usual area of chiropractic practice are perhaps a little lower in education and income than people in general. Similarly, the total group of patients has a high incidence of men, but those seeing chiropractors for other than back, neck, muscle, and joint problems had a low incidence of men.

About one-half percent of the sample reported ever going to a homeopath, and one-half percent to a naturopath. Patients of these practitioners tended to be older, and more of them are women.

Hearing Problems and Practices (Part II, Chapter 12)

About one-half percent of the total sample, representing about half a million people, reported they had bought non-prescription medicine supposed to help their hearing. They tended to be younger people, when compared to all those reporting hearing problems. They indicate more worry about their health than people in general (without evaluating

it as poorer). They tend more often to be men, and to have low education and income. They are more critical of doctors and the medical profession, more inclined to rely on their own judgment over that of a physician, and have a greater general tendency toward self-medication. Certain medicine advertising and labeling claims impress them more.

About two percent of the total sample indicated they had ever bought a hearing aid. Half of them had bought only through a doctor, and half had bought through other sources. Thus, the results suggest that about one million people have purchased hearing aids from sources other than a physician. The non-physician purchasers were younger, and had higher incomes, than the physician purchasers.

"Aids" to Quitting Smoking (Part II, Chapter 13)

Five percent of the total sample, representing about seven million people, said they had purchased something, without a prescription, that was advertised as a help in quitting smoking. They tended to be higher in income and education than the rest of the sample.

Health-Related Attitudes and Opinions (Part II, Chapter 14)

A number of attitudes, opinions, and orientations in the area of health were investigated. Very sizable portions of the population appear to be susceptible to unethical or questionable practices of "doctors" and advertisers. A marked tendency for people to rely on their own judgment over that of a physician was noted. Negative opinions of doctors and the medical profession were striking. A widespread lack of understanding of the potential dangers of ineffective treatments was suggested.

Some General Conclusions

- "Susceptibility to health fallacies" is not an entity: tendencies to follow questionable practices in different areas are only slightly related to one another.

- Questionable health practices are not consistently related to questionable beliefs. In some areas, many more people hold questionable beliefs than engage in questionable practices. In some areas, those engaged in questionable practices are no more likely than others, and sometimes less likely, to hold relevant questionable beliefs. In short, the generalization that fallacious practices always result from specific faulty beliefs is not supported.

- For many questionable practices large majorities of those who tried them are satisfied with the results they think they obtained.

- Many people engage in questionable practices just as something "worth a try", rather than from any false conviction.

- The demographic characteristics of followers of questionable practices change materially from one area to another. Therefore, no single set of demographic characteristics is related to questionable health behavior in general.

- In several of the questionable practices investigated the followers were marked by a general tendency toward self-medication (nutrition supplements, weight reduction practices, self-diagnosis, non-physician hearing aids).

- In several of the practices, the followers seemed marked by a greater-than-average acceptance of advertising claims ("tonic" use, weight reduction practices, prolonged self-medication for common ailments).
- For most of the practices, the followers were either more critical than most people of physicians, or more inclined to trust their own judgment of a medicine when it conflicted with that of a physician.
- Followers of most questionable practices report more worry about their health than do people in general. However, they do not fit the classic definition of hypochondriacs, since they did not at the same time evaluate their health as poorer, but tended more often to evaluate it as better than did people in general.
- More often than not, the "personality traits" investigated did not distinguish followers of questionable practices. For a few practices, the followers were people who are cynical and take a dim view of the world, as previous research had suggested. In some cases, the dim view of the world was coupled with a sense of deliberately trying to find a bright side to things.

Relationships with Age

The study included a special interest in the relationship of old age to susceptibility to health fallacies.

- Older people, as a group, seem no more inclined to worry about their health than younger people.

- Older people are more critical of doctors and the medical profession, and seem somewhat more susceptible to certain practices associated with unethical "doctors" (the latter difference is not striking). However, they are less likely than young people to rely on their own judgment when it conflicts with that of a physician.
- Susceptibility to medicine advertising and labeling claims is unrelated to age, and older people seem more skeptical than young ones about the efficacy of drug store remedies. Prolonged self-medication of common ailments is more characteristic of young people than old people.
- Older people seem to be more impatient for results from medication.
- Older people are less likely than younger people to engage in questionable use of nutrition supplements.
- Older people were less likely to engage in questionable weight control practices.
- Among those who have such serious ailments as heart disease and high blood pressure, older people seem no more likely than younger ones to engage in self-medication. However, many more older people have these conditions, of course.
- More older people were relying on self-diagnosis of various ailments, but more older people also had had the same ailments diagnosed by a physician, so any tendency of older people toward self-diagnosis is due more to their greater frequency of problems than to any special reliance upon self-diagnosis.

- Several questionable practices relating to arthritis/ rheumatism are especially characteristic of older people. They more often suffer these symptoms, of course, but even among sufferers older people were more likely to pursue questionable practices than younger people.
- Older people more often use health practitioners who are not "regular physicians".
- Older people are much more likely to have hearing problems, but among those with problems they are less likely than younger people to follow questionable practices.
- Older people are more prone to over-reliance upon bowel movement aids.
- Older people reported more doubts about the healthfulness of the nation's food supply, and a somewhat greater incidence of health food usage.

Thus, while there are several areas in which older people do seem more susceptible to questionable practices, in other areas they are less susceptible. Without detracting from the seriousness of the problems affecting older people, it seems reasonable to conclude that a general tendency for all kinds of health fallacies to affect more old people than young ones has not been demonstrated.

Conclusions from the Depth Interviewing

While the conclusions listed below were derived mainly from the depth interviewing, many of them are consistent with trends observed in the survey data, and none is inconsistent.

- Systematic thinking about health is rare; few people have an organized set of health beliefs. Therefore, to explain fallacious behavior as resulting from questionable belief systems is not generally useful. Among the groups investigated, questionable belief systems were apparent only in highly committed health food users and those who believe in chiropractic treatment for virtually all conditions.

- Many questionable health practices seem better accounted for by a kind of "rampant empiricism" than by specific false beliefs:
 - . A great many people take the stance that "anything is worth a try", and approach health problems by trial and error, rather than with a grounding in belief or facts.

 - . Rampant empiricism reflects a very literal belief that individual response to treatment is entirely unpredictable.

 - . Rampant empiricism is thus a much overextended version of the medical truism that individual patients differ in response to medication. Many laymen are willing to justify any "treatment" or regimen, no matter how

outlandish, on the grounds that it may work for them although it does not work for anyone else, so the only way to evaluate a practice is to try it.

- . Rampant empiricism is especially attractive to the mentally lazy, and to people who need the ego satisfaction of stressing their own uniqueness and judgment.
- . Public awareness of psychosomatic effects strengthens rampant empiricism: if faith in a treatment can result in improvement, then people believe that any treatment at all can work.
- . The operation of the placebo effect is sufficient to prevent the trial and error process from eliminating ineffective treatments. If people think something might help them, many will actually feel relief, even with a sugar pill. Thus, trial of a health treatment selected randomly will produce a number of people attesting that it works.
- . Simple unaided recovery, when it happens to coincide with a trial period, will make many people believe they hit upon something that will help them.

- Many people do not distinguish between a cure and symptomatic relief, and are not even aware that a distinction exists. Anything that makes them feel better is curing them.
- It appears that a majority of the population overstresses the relationship between health and diet or nutrition.
 - . Many people seem to believe that actual observed cases of poor health are more often due to "not eating right" than any other cause. (In the survey, 75 percent agreed with a statement to this effect.)
 - . Very large numbers of people believe that almost everyone can gain noticeable improvements in vigor and energy by improving his diet or using supplements.
 - . Thus, many people are convinced that one can "fine tune" his health by simply improving his diet.
 - . Health and nutrition courses in school may contribute to these misconceptions. Since these courses concentrate on things the individual himself can do for his health, they emphasize such factors as diet and cleanliness, rather than such causes as bacteria and virus infection, long-term tissue degeneration, and congenital factors.
- Vitamin pills are a great mass placebo. A great majority of the population believe that they provide more pep and energy to almost anyone taking them. Many physicians may encourage this misconception by using vitamins as a placebo when they think the patient is a hypochondriac, or to "pacify" a fretful patient by giving him something when the diagnosis of his run down feeling is uncertain.

- Substantial numbers of people believe that advertisers in the health field are so rigorously policed and regulated that serious distortions and fabrications are very unlikely or impossible. Even people who are skeptical of claims made in the abstract may believe that specific false claims are impossible.

- Popular portrayals of "quacks" as objects of humor lead many people to believe that they are always so blatantly weird, preposterous, or hucksterish that quackery is easily recognizable.

- Many victims of health falacies seem to be striving for "super health".
 - . While physicians might define good health as simply the absence of bad health, many laymen see good health as a state beyond the mere absence of any disorders, encompassing feelings of unlimited energy, freedom from any anxiety and depression, and the presence of contentment and happiness.

 - . Thus, good health is not just normal health. Since it transcends the mere absence of disorder, it does not occur naturally, but must be deliberately worked at.

 - . Presumably, physicians may not share this orientation, so many people may look elsewhere, often to "rampant empiricism", for assistance in achieving the state they desire.

 - . For many people, food and nutrition become a likely route to super health.

 - . Courses in school, with their stress upon general well-being rather than specific diseases and disorders, may also contribute to the super health orientation.

PLAN OF THE REPORT

The report is presented in two parts, I and II. Part I includes the background of the study, its methodology, extensive summaries of its findings, and action implications derived.

Part II presents the findings of the major survey portion of the study in full detail.

This presentation enables readers who do not need or want full details to consult adequate summaries, or only those portions of the detailed findings that are of special interest to them.

PART I

Table of Contents

	<u>Page #</u>
Chapter One: INTRODUCTION.....	1
Chapter Two: METHODOLOGY.....	5
Chapter Three: HIGHLIGHTS OF THE SURVEY.....	9
Chapter Four: DEPTH INTERVIEW RESULTS AND OVERVIEW.....	52
Chapter Five: ACTION IMPLICATIONS.....	82

Chapter One: INTRODUCTION

The purpose of this research project was to examine the health practices and opinions of Americans, with particular emphasis on susceptibility to health fallacies and misrepresentations which may cause unnecessary expense, injury, or a poorer quality of health care than that which is available.

The objectives of the study, therefore, included the following:

- to ascertain the incidence in the population of various behaviors and opinions that might be construed as based upon fallacious thinking or assumptions.
- to examine the possibility that such behaviors and opinions may vary with the demographic or personal characteristics of individuals.
- to understand as well as possible the processes or influences that lead people into practices that may be worthless or detrimental.

In planning the project, it became apparent that a direct line of questioning respondents about fallacious health practices was not feasible. The answers to such questions as: "Have you ever gone for health care to someone you believe was a quack, or was unqualified? Have you ever bought medicine that was misrepresented?" would not be very useful. In the first place, it must be assumed that a great many people who have been victimized never know it, and certainly those currently being victimized do not know or would not admit to it. In the second place,

those who do realize, too late, that they were victimized may very well be unwilling to confess their gullibility. In the third place, many people who were not actually victimized might believe they were, if they became dissatisfied by the treatment provided by a legitimate physician, for example.

Obviously, some hard and fast operational definition of questionable behavior was necessary. But the phenomenon being investigated did not lend itself to a simple, unitary definition. For some ailments, any treatment not supervised by a physician may be fallacious. But what of that minority of physicians that is unscrupulous and deserving of the term "quack"? And how is the interviewer or research analyst to distinguish between such a physician and a legitimate, though perhaps unorthodox physician, when the history of medicine is replete with examples of ideas that were universally accepted by orthodox authority only to be rejected later as invalid?

Is self-medication fallacious? It can be, if the "patient" expects a cure, or if he is overlooking a serious need for treatment that a physician might recommend. But can we necessarily label as fallacious using aspirin for headaches, or lozenges for a sore throat?

On what basis were the interviewers or research analysts to evaluate health practices attributed by respondents to physicians? Some theoretically qualified physicians are known to carry out outmoded or fraudulent practices, but not even their colleagues can agree in many instances to condemn them. All the respondent can report is that he went to someone who seemed to be a qualified physician, who provided a treatment. Even if the respondent could describe accurately the treatment or medication used, interviewers have no basis for judging its value, and the questionnaires would have tens of thousands of treatments to be judged.

Considerable work went into developing a list of fallacious or questionable practices and behaviors, often conceptually unrelated to one another. Each item had to be treated separately in translating it to an operational definition around which survey questions could be written. For some items it was necessary to include frequency to define them as clearly questionable; others might or might not be fallacious, depending upon the user's expectations; some practices could be called fallacious only if they were undertaken without a physician's advice.

The following areas of inquiry, all known or believed to be common or serious areas of fallacious practice, were selected for study:

1. Misinformation concerning the need for and benefits to be expected from nutrition supplements; use of such supplements in the absence of a physician's advice and with unrealistic expectations of benefit.
2. Misinformation concerning health hazards in food; use of so-called "health food" or "organic food".
3. Misinformation about effective means for weight reduction; following questionable practices in this area.
4. Misinformation about the necessity for daily bowel movements; excessive self-treatment with laxatives or other aids.
5. Self-diagnosis of specific ailments.
6. Prolonged self-treatment, without consulting a

physician, for sore throat, coughs, sinus trouble, head colds, hay fever, skin problems, insomnia, and upset or acid stomach.

7. Use of non-prescription medicine believed to be "cures" for asthma, allergies, arthritis, or hemorrhoids.
8. Use of non-prescription medicine for diabetes, heart trouble, or high blood pressure.
9. Use of non-prescription "cures" for arthritis or rheumatism, or following other questionable practices in attempting to treat these conditions.
10. Questionable practices in the treatment of cancer.
11. Reliance upon various health practitioners, some with questionable qualifications.
12. Hearing aids and medicine for hearing.
13. "Aids" to quitting smoking.

A questionnaire was developed around these areas, covering them in specific detail so that the necessary qualifications of frequency, duration, source, and expectation could be combined to define the practices as fallacious or questionable.

The questionnaire also included material on demographic characteristics, attitudes, and orientations that might be related to the tendency to follow questionable practices.

Items from personality scales used in previous research on health fallacies were included. The questionnaires, and the personality scales, are presented in the Appendices.

Chapter Two: METHODOLOGY

The study was conducted in four phases, as described below.

Phase I, Pilot Survey

The first phase of this study was conceived and executed as a pilot survey, to determine whether the approach selected was appropriate and fruitful to examine the feasibility of various lines and forms of questioning, and to provide some very preliminary estimates of the incidence of various behaviors, for planning purposes.

The sample for this phase was obtained in two parts. First, FDA supplied a list of names and addresses of persons known or suspected to have had an experience with a misrepresented product or to have expressed false beliefs. Difficulty was encountered in locating many names that were clustered within a reasonable number of National Analysts' sampling points, but interviews were obtained with 38 such people.

The second part of the sample consisted of 250 respondents, selected by area probability sampling methods, within 10 sample points spread across the nation.

The same questionnaire was used with both sections of the sample.

The questionnaires for the 38 names supplied from FDA were analyzed by the FDA Project Officer to demonstrate that the questionnaire did, in fact, report their known

MA 120114
12/11/53, 400

behaviors. The 250 "random" interviews were analyzed by National Analysts to establish preliminary estimates of the incidence of some of the relevant behaviors, the relationships among the behaviors, the relationship of behaviors to potentially relevant beliefs, and the demographic characteristics of those following the selected behaviors.

Because the purpose of this phase was entirely methodological, it is not a part of this report.

Phase II, Depth Interviews

In Phase II, depth interviews were completed with 37 of the individuals who were interviewed in Phase I and identified as being susceptible to misinformation or having engaged in questionable practices. The interviews were conducted in six locations of the country, by persons experienced in depth interviewing.

A lengthy interview guide was used, to assure that all relevant areas of inquiry were probed.

These interviews were analyzed by a psychologist at National Analysts skilled in this task. A primary goal of this analysis was to derive insights into the ways of thinking, orientations, and systems of motivation that might exist among the respondents to account for their health beliefs and practices.

Phase III, The Survey

The results of the preceding phases were used to

develop a questionnaire administered to 2839 adults in a national area probability sample during the summer of 1969. The questionnaire included well over 200 questions, many with a number of parts, although no one respondent would be asked all of them.

The most rigorous sampling procedures, including call backs for persons not at home, were followed throughout. It was necessary that older persons be over-sampled, since it was suspected that the incidence of questionable health behavior was higher in older age groups. The system used to accomplish this over-sampling ensured that no bias was thereby introduced into the sample, even though it meant that some households that were screened and had persons who would agree to be interviewed had to be dropped from the sample, in order to make the over-representation of older persons random rather than systematic.

Before the results could be analyzed it was necessary to "weight" the sample to "correct" for the over-representation of older people. At that time, the weighting system was also designed to correct for minor deviations from known population characteristics, so that the weighted sample is in agreement with the Bureau of the Census on the incidence of certain standard demographic characteristics. Because of the relatively large size of the sample and the precision with which it was assembled, it can be assumed to be a valid representation of the U.S. population.

A complex analytic plan was carried out, using punched cards and computer tabulations. The results of that analysis are the bulk of this report.

Phase IV, Follow-up Depth Interviews

The last phase of this project consisted of eight group depth interviews, each consisting of at least eight respondents, and nine individual depth interviews, all conducted by members of National Analysts' staff skilled and experienced in these techniques. The respondents in this last phase were selected to represent some of the questionable practices and beliefs that were under study, and were drawn from four regions of the country. The purpose of this phase was to examine selected issues from the earlier phases in more depth and detail than is possible with structured interviews.

The results of both depth interview phases are incorporated in this report. In a few instances they are introduced to help interpret or elaborate the survey findings, and are reported specifically in Chapter Nineteen.

Chapter Three: HIGHLIGHTS OF THE SURVEY

A. Nutrition Supplements

Beliefs

A large majority of the American people hold at least some inflated ideas of the benefits of taking supplemental vitamins and minerals. The most common misconception is that extra vitamins will provide more pep and energy, and that people who feel tired and run down probably need more vitamins and minerals.

At the same time that these misconceptions were common in the sample, large majorities also reported agreement that eating balanced meals, and eating a variety of available foods every day, will supply all the nutrition needed. Obviously, the thinking of many people is confused.

Younger people are somewhat more likely than older ones to hold most of the misconceptions that were investigated. The relationship with education and income was not very impressive or consistent.

Usage

Slightly over half of the sample reported that they had used vitamin pills at some time in their adult lives, and over a fifth were using them at the time of interview. Usage of "tonics for the blood" and other supplements was much lower. Vitamin pill usage increased with socioeconomic status, and tonic usage decreased; since vitamin pill usage is so much more common, the net effect is that usage of

nutrition supplements is considerably higher among those with higher levels of education and income.

Not surprisingly, users of nutrition supplements seem more likely than non-users to hold misconceptions about their benefits.

Sources of influence on usage

Over half of the users of both vitamin pills and tonics reported that a physician advised the use. Among other sources of influence, word-of-mouth and broadcast advertising are impressive.

Women were far more likely than men to report a physician advised the usage.

Reasons for usage

The most common reasons for nutrition supplement usage are to obtain extra energy and to feel generally better. In fact, a large majority of users said, in response to a direct question, that they expected the supplements to make them feel better. This expectation is especially common among older users, and those with less education and income.

In short, a large proportion of nutrition supplement users seem to have very high expectations of benefits.

Satisfaction

Nearly two-thirds of vitamin pill users and about three-fourths of tonic users seem to be satisfied that the products did what they hoped they would.

The available evidence strongly suggests the working of the placebo effect, since most authorities maintain that nutrition supplements benefit few people, and that even fewer can experience any objective improvement in the way they feel or in the energy available to them. It is well known that when people are led to believe something will help them they often experience a subjective improvement in their state, through the "power of suggestion". Thus, for example, pain can be experienced as reduced when people are given sugar pills and are told that the pills are a powerful analgesic.

That the power of suggestion accounts for the satisfaction that many nutrition supplement users report is bolstered by the finding that reported satisfaction was highest among those users who most expected benefits and had the greatest conviction that the supplements would be of value.

Distinguishing characteristics of users

Vitamin pill users, when compared to non-users, include more women and more people of higher socioeconomic status. In most other respects, among the variables that were examined, vitamin pill users seem to be little different from the total population. There was some tendency for more of them to report worrying about their health, but even that difference was not very great.

Tonic users are more distinguishable. They were even more heavily weighted with women, but unlike vitamin pill users, they were of lower socioeconomic standing than the general population. They had more southern and fewer northeast origins.

The tonic users report even more worry about their health than the vitamin pill users. They seem more susceptible than the total sample to some medicine advertising and labeling claims.

Questionable usage

Use of nutrition supplements on a physician's advice clearly must be considered a reasonable practice. Those whose use is not based upon expectations of actual observable benefits, but simply seeks a "guarantee" against nutrition problems, must also be assumed to be proceeding under no misconceptions. Nearly half of the vitamin pill users in the sample and over a third of the tonic users, however, did not fulfill either of those conditions. Thus, about a fourth of the total sample was classified as having used one or another of the nutrition supplements in a questionable fashion.

Characteristics of those with questionable use

Comparison of those with questionable vitamin pill use with those with use presumed legitimate revealed only a few important differences. The major demographic difference is sex: many more of those with questionable use are male. Thus, while women are more likely to have used vitamin pills than men their use was more often classified as legitimate, primarily because many more of them report a physician's advice is involved. The result of those patterns is that

those whose use of vitamin pills is questionable include males in a higher proportion than they exist in the population.

Those whose use of vitamin pills is questionable tend to be younger than those whose use was presumed legitimate, and younger than the total population.

In a number of ways, those with questionable use of vitamin pills revealed a greater general tendency toward self-medication, and to rely on their own judgment over that of a physician, than those whose use was presumed legitimate, and than the total population. This seems to be the primary non-demographic characteristic that distinguishes the questionable user of vitamin pills.

A somewhat different pattern occurs with tonic use. Males are once again much more common among those with questionable use than those whose use is legitimate (only a very small portion of the latter were male), but there was no age difference in the case of tonics. On the other hand, there was an income difference. Those whose use of tonics is legitimate include about the same proportion of high income respondents as the total population, but those whose use seems questionable include many fewer. There was no such effect with education; while tonic users as a whole tend to have lower incomes than the total sample, questionable versus legitimate usage made no difference in this regard.

As was the case with vitamin pills, those with questionable tonic use seem to have a greater general tendency to self-medicate than those with legitimate use, who were about the same as the total population in this respect.

Those with questionable tonic use are more impressed by certain doubtful medicine advertising and labeling claims than are those whose use was legitimate, who were not very different from the total population.

Finally, those with questionable tonic use are more critical of physicians in several ways than are those with legitimate use and the total sample.

In summary, it appears that questionable vitamin pill usage does not result from any very fundamental differences in orientation, other than a general tendency to self-medication. Questionable tonic use, however, is related not only to self-medication in general, but also to critical attitudes toward the medical profession and to susceptibility to medicine advertising claims.

B. Food, Nutrition, and "Health Food"

Beliefs

A very large majority of the American population has at least some misconceptions about the healthfulness of the nation's food supply. When presented with a number of propositions about the alleged effects of chemical additives, food processing and storage, "worn out soil", and chemical fertilizers, half or more of the sample indicated agreement with each statement.

Doubts about the healthfulness of the food supply are most common among those with less education and lower incomes. They are somewhat greater among older people than younger ones.

Behavior

Relatively few people in the sample indicated they had acted upon their doubts about the healthfulness of the food supply. Under a tenth said there was some particular food they had avoided because of the beliefs that were investigated, and under a tenth said they had eaten some particular food because of those beliefs.

"Health Food" usage

One-tenth of the sample said they had ever eaten "food advertised or labeled as 'organic' or 'natural' food, like health food stores sell", and half of these, or 5% of the total sample, said they had eaten such foods more than five times. The latter may be considered health food users. About 2% of the sample was using it at the time of interview.

Age and sex relationships with health food usage seem neither large nor consistent. Usage increases, however, with increasing education and income, which is especially noteworthy since doubts about the healthfulness of the food supply decrease with increasing education and income. The beliefs investigated are, in fact, related to the usage of health food: health food users reported more doubts about the food supply healthfulness than did non-users. Therefore, the finding that people of higher socioeconomic status are least likely to have the doubts but are more likely to use health foods requires some explanation.

The most likely explanation is a simple one: higher incomes make health food use more feasible, even though a smaller proportion of high income people hold the beliefs that support its use.

Among those who had used health food more than five times, at least a sizeable minority could be called heavy users.

Sources of influence on usage

Four-fifths of the health food users said no health practitioners had advised its use; a small number cited physicians, chiropractors, and other sources.

Among other sources of influence, word-of-mouth seems most important, followed by magazines, print advertising, and books.

Reasons for usage

Over half of health food users act out of a conviction that their health will be improved (as opposed to thinking it is just "something to try"). This sense of conviction is strongest among older users, and users of lower socioeconomic status.

The great majority of health food users mentioned one or more health or nutrition related reasons for its use, but a significant minority said they ate it just to be socially agreeable, with friends or relatives, or because they like the taste. The latter response was most common among users with higher education.

Thus, socioeconomic status has an interesting relationship to health food usage. Usage is more common among those with higher incomes and more education, probably because affluence makes usage feasible. False beliefs about the healthfulness of the regular food supply are less common

among upper socioeconomic status respondents. Among users, those with higher incomes and education are less committed to the idea that health food would "help them", and more likely to say they valued it for its taste. Health food usage seems, therefore, to be taken less seriously among persons with higher socioeconomic status, despite the fact that they are more likely to be users.

Classifying health food usage

Whether or not health food users are engaging in a questionable practice is a matter of degree, and must depend upon their reasons for use. In response to this issue, special attention was given not only to all those who used health food more than five times, but also to two subgroups: those who did not cite a physician as having advised the use (who constituted nine-tenths of all users), and those users who were committed, saying they really expected to be helped (who constituted nearly three-fifths of all users).

Characteristics of health food users

The committed health food users, those whose use was not based upon a physician's advice, and the total group of those who had used health food more than five times were compared to the total sample. Health food users were found to be different from the total population in a number of ways. In most cases, the committed users were the most different, followed by those whose use was not based on a physician's advice. The total group of users, while still different from the total population, were not as different as the two subgroups.

One exception to the generalization that the committed users were the most different from the total sample was the case of education. While all the user groups had

fewer people with little education than the total sample, here it was the total group that was most different and the committed users who were least different from the total sample. In other words, while committed health food users have a higher level of education than the general American population, the level is even higher for all health food users, who include the non-committed. Non-committed users (i.e., those who think it is "just something to try"), therefore, have the highest educational level of all.

Health food users tend to have higher incomes than the total sample, and to be older. They more often grew up in the West, and less often in the South.

Health food users, and especially the committed users, are more likely than the total sample to doubt the healthfulness of the regular food supply, to exaggerate the benefits of vitamins and minerals and to exaggerate the importance of diet as the cause of most health problems. This latter finding is especially noteworthy when it is remembered that vitamin pill and nutrition supplement users were not distinguished in any meaningful way by their beliefs in this area. Health food usage seems to be a practice that is more determined by a system of beliefs than is vitamin pill usage.

Health food users seem more susceptible to testimonials in medicine advertising, but there was little difference with other doubtful medicine claims that were investigated.

The total group of health food users seem a little more prone than the total population to practice self-medication for common ailments. However, the committed users were less prone to self-medication than the total sample. This pattern may result from the fact that the committed users reported a greater-than-average concern with their

health, while those users who were not committed were scarcely different from the total sample in this regard. Thus, committed health food users, being concerned about their health, might be expected to see a doctor almost immediately upon developing any symptoms, while uncommitted users, who have "dabbled" with health food, might be expected to dabble with self-medication as well.

Health food users seem more likely than the total sample to rely on their own judgment when it conflicted with that of a physician: they were more likely to say they would use a medicine that they or a friend thought was working, even if a doctor said it was worthless for the purpose it was being used.

The committed users were more critical of doctors and the medical profession than was the total sample, but the total group of users was little different from the total sample in this regard.

Health food users are more likely to be opposed to water fluoridation than the total sample, which is another indication of the tendency of many of them to reject the judgments of the "health establishment".

Committed health food users reported more worry about their health than the total sample, but they also claimed to have better health. This configuration is especially noteworthy when coupled with the finding that health food users seem more likely than the general population to see "good health" as being something that must be worked at constantly, rather than a natural thing. Health food users appear to have a preoccupation with health that is based more upon a belief that such a preoccupation is a desirable thing than upon any perceived failings in their health.

Uncommitted health food users (the "dabblers"), when compared to the total sample, seem to have a personality structure that emphasizes being on their own in an unfriendly world, responsible for their own fate, with little help to be expected from either their fellows or God, but determined to look on the "bright side". Such a structure may incline people to try anything, including health food, that holds out the promise of benefit through one's own action.

The committed users seem less distinguished from the general population by personality characteristics, but they do seem to have a greater tendency to look on the "bright side", and to believe that things can be made to go right for them.

C. Weight Control

Beliefs

Somewhere between one-fourth and one-half of the population seems to hold at least one questionable belief in the area of weight control. The most common such belief is that sweating is an effective way of reducing weight substantially. Other beliefs that were investigated, and received substantial endorsement from respondents, dealt with the effectiveness of non-prescription appetite depressants, dieting only by using artificial sweeteners in place of sugar, increasing the consumption of fats while reducing carbohydrate intake, massage, and keeping up with the latest diets that are published. The responses in this area indicate a considerable amount of confused and even contradictory thinking on the part of the public.

The misconceptions are not highly related to demographic characteristics, but several of them are slightly more common among those with less education and income, and among men.

Concern about weight

About half the sample indicated they had ever been concerned about reducing or avoiding weight gain. Women, and those in the upper categories of income and education, were especially likely to report concern.

Reducing diets

About a fourth of the sample had been on a reducing diet in the past three years, and one-tenth of the sample was on such a diet at the time of interview. Dieting is most common among women, younger people, and those with more education and income.

Half of all those who had dieted in the past three years had done so more than once during that period -- most typically, two or three times. Obviously, for a great many people dieting is either not very effective or its results are short-lived.

Half of those who dieted in the past three years said a doctor had advised it, and nearly as many indicated that a doctor had recommended a diet for them to follow.

Weight reduction practices

About one-fourth of those who said they had ever been concerned with their weight said they had tried appetite depressants, 17% said they had used "meal replacements" (i.e., "liquid diets or things that take the place of a whole meal"), and 7% said they had tried something supposed to make them lose weight by sweating. Smaller numbers -- two to four percent -- had tried massagers or vibrators, effortless exercising machines, and medicine to lose weight without changing the diet. Less than three-fifths of the weight concerned people had tried none of these things.

Appetite depressants

One-fourth of the weight concerned -- corresponding to 13% of the total population -- reported having tried appetite depressants. Among the weight concerned, women, and those with less education are most likely to have tried them. (However, those with less education are less likely to have been weight concerned in the first place.)

About 85% of the appetite depressant users said they had been recommended by a physician. Thus, about 2% of the total sample -- and of the United States adult population -- indicated having used non-prescription appetite depressants. Most of these people "just thought it was worth a try" (as opposed to "strongly believing" they would be helped). Most of the non-prescription appetite depressant users -- 71% -- reported that the product did, in fact, control their appetite. (Users of prescription appetite depressants were even more positive in their judgment of results.)

"Meal replacements"

About 8% of the total sample reported having used the liquid diets or things that take the place of a whole meal. Most reported that their pattern of usage was every day or nearly every day. It appears that a considerable majority of the users of these products have a correct understanding of their benefits, and do not expect any medicinal qualities or directly produced weight loss. Most of the users "just thought it was worth a try".

Sweat inducers

About 3% of the total sample had tried to reduce by using something to make them sweat -- an erroneous practice, since it confuses a very temporary water loss with a reduction in fat. Use of steam baths and special clothing are the most common practices.

The majority of the sweat inducers "really believed" it would help them (as opposed to thinking it was just "worth a try").

Over half of the sweat inducers said they lost "more than a few pounds", but most of these said they gained back the weight.

Massagers and vibrators

About 2% of the total sample had used a massager or vibrator in weight control efforts, and about 1% had purchased such a device. Most of the users "really believed" it would help them. However, only about a third of the users said they lost "more than a few pounds", and most of these said they later gained back the weight.

Effortless exercising machines

Machines that provide "exercise" with no effort were used by about half as many people as massagers or vibrators, but they present a very similar pattern on incidence of purchase, expectations, and results reported.

Weight loss medication

Under 2% of the total sample claimed to have used "medicine or a special preparation to get rid of weight without your changing what you ate". About three-fourths of these said the medicine was obtained through a physician, so less than 1% of the total sample used a non-prescription medication that they thought would produce weight loss with no change in diet. About two-thirds of these people thought it was "just worth a try". While a majority of the users of these products said that they lost "more than a few pounds", nearly all of them said they later gained it back.

Classification of weight reduction practices

For purposes of further analysis, the following practices were considered to be fallacious or questionable: using something that produces sweating -- 3% of the total sample; using non-prescription appetite depressants -- 2% of the total sample; buying a massager or vibrator -- $\frac{1}{2}$ % of the sample; buying an "effortless exerciser" -- less than $\frac{1}{2}$ % of the sample; using non-prescription medicine supposed to remove weight without changing diet -- less than $\frac{1}{2}$ % of the sample; using meal replacements in the belief that they contain an appetite depressant or directly eliminate fat -- less than $\frac{1}{2}$ % of the sample.

While many of these proportions seem small, it must be remembered that the sample represents all Americans aged 18 or over, so that 1%, for example, means that well over one million people have engaged in the practice.

A combination of these practices into a single "questionable practice" category included about 6% of the total sample.

Correlates of "questionable practice"

When compared with all other weight-concerned respondents, the followers of questionable practices (combined category described above) tend to be younger. Since weight concern itself is unrelated to age, they tend to be younger than the total sample as well. The followers of questionable practices have more education and higher incomes than the other weight-concerned respondents, who, in turn, have more education and income than the total sample. (The users of non-prescription appetite depressants are an exception, however: they are about the same on education and income as the weight-concerned people who did not follow a questionable practice.)

Trying to reduce through inducing sweating is especially characteristic of males; the other questionable practices are all more characteristic of women than of men.

The followers of questionable weight control practices seem generally more accepting of claims of effectiveness than others. They indicated more acceptance of a series of typical medicine advertising and labeling claims than did the other weight-concerned respondents, despite their higher education, which generally brought decreased acceptance of those claims.

The followers of questionable practices have a greater tendency toward self-medication than do the other weight-concerned respondents, and a greater tendency to rely on their own judgment when it conflicts with a physician's advice.

Very significantly, following questionable practices is not related to the beliefs about weight control that were investigated. The single exception was in the instance of sweating: those following this practice were especially likely to endorse the statement that sweating was an effective means of weight control. Those in the other questionable practice categories, however, did not have more erroneous beliefs than the weight-concerned respondents in general, even in the areas bearing directly upon their questionable practices. In fact, the beliefs of the followers of questionable practices seem in many cases to be sounder than those of the weight-concerned respondents who had followed no questionable practice. Obviously, questionable behavior in this area is not to be explained by a system of explicit faulty beliefs. Rather, it seems related to a general lack of skepticism and a tendency to "give things a try".

D. Bowel Regularity

Beliefs

Two-thirds of the American population have the belief that a bowel movement every day is necessary for health, and nearly a third believe that it is appropriate to do something regularly to help with bowel movements.

These beliefs are more common among men than women, and among those with lesser education and lower incomes. Age is unrelated to the more fundamental misconception -- that missing a daily movement is dangerous -- but older people are more likely than younger ones to believe in the desirability of regularly inducing bowel movements.

Behavior

Nearly a third of the sample reported ever doing anything to help with bowel movements. Women, older people, and those of lower socioeconomic status were more likely to report doing so. Using laxatives is the most common practice -- nearly one-fourth of the total sample reported using them.

Of those who reported ever doing anything to help with bowel movements, the majority reported that it was infrequent. However, 6% of the total sample reported they did something every day or nearly every day. Among those aged 65 or older, the figure was 14%.

Sources of influence

About three-fifths of those who reported ever doing anything to help with bowel movements said they were not acting on the advice of a physician. Younger people were especially unlikely to report a physician's advice as the reason for their practice.

Over-reliance upon bowel movement aids

About 2% of the total sample indicated that they were doing something to help with bowel movements every day or nearly every day, and that they were not doing so on the advice of a physician. This serves as a crude index of the extent of over-reliance upon bowel movement aids in the total population, and corresponds to about two and one-half million people.

Characteristics of "over-relyers"

Those who over-rely tend to be older, and to have less education and lower incomes than the general population. They very often grew up on a farm, and were more likely to live in the Pacific states.

Attitudinal differences between the over-relyers and the total population are not very great. There is a general tendency for over-relyers to be more critical of doctors and the medical profession. They seem more committed than most people to a view of good health as something that does not come easily or naturally, but must be worked at constantly. The over-relyers do not demonstrate any generalized tendency to self-medication: they indicated no greater tendency than the total sample to self-medicate common ailments. They were more, rather than less, critical of

drug store remedies than the total sample. Apparently, they do not view their laxative practices as a "treatment".

E. Diagnosis by Self or a Non-Physician

Occurrence

Self-diagnosis of some ailments is not an uncommon practice. Over a fourth of those respondents who said they had arthritis, rheumatism, or some similar ailment said the condition had never been diagnosed by a medical doctor or osteopath. Of those reporting asthma, allergies, or hemorrhoids, from over 10% to over 20% said a physician had never diagnosed the condition. Heart trouble, high blood pressure, and diabetes, on the other hand, were self-diagnosed by very few people -- 4% or less of those claiming the ailments.

About 12% of the total sample was classified as relying on self-diagnosis or diagnosis by a non-physician of one of the ailments above. Thus, about 16 million Americans who believe they have one or another of these ailments do not have a qualified diagnosis.

Characteristics of self-diagnosers

The self-diagnosers were older than the total sample, but so were those who had had the ailments in question diagnosed by a physician.

The self-diagnosers seem different from the general population only in areas of attitude and orientation that seem directly related to the self-diagnosis tendency. They indicated a greater tendency than the total sample to rely upon their own judgment when a physician's opinion conflicted, and a greater tendency to self-medication of common ailments. Even here, however, the differences were not striking.

It appears that those who engage in self-diagnosis, as examined in this study, are not very different from people in general, so that self-diagnosis appears to be a rather casual practice, rather than one resulting from peculiar characteristics and orientations.

F. Self-Medication for Common Ailments

Practices

Self-medication was studied in the areas of sore throat, coughs, sinus trouble, head colds, hay fever, skin problems, "helping you sleep", and upset or acid stomach. For each ailment, respondents were asked how long they typically go on using medicine on their own, before seeing a doctor. Depending upon the ailment, from one-fourth to nearly three-fourths of the sample said they usually self-medicate for more than three days; from 5% to over 40% said it was over a week. Extended periods of self-medication were most common for hay fever and skin problems, and least common for upset or acid stomach, sore throat, coughs, and head colds -- the latter conditions are less likely to persist for a long time, of course. Thus, a considerable portion of the population disregards the common warning on non-prescription medicine labels to see a physician if symptoms persist more than a few days.

Self-medicator classification

Self-medication for more than a very few days is often considered a questionable practice. However, to define a group for further analysis that was unarguably following a fallacious practice, the time interval was set at "greater than two weeks". Twelve percent of the sample, representing about 16 million American adults, met this criterion for questionable self-medication on one or more of the ailments.

Characteristics of questionable self-medicators

Questionable self-medicators include more young people than the total population. They were not very distinguishable on other demographic characteristics.

The questionable self-medicators revealed a somewhat greater tendency than people in general to be favorably impressed by medicine advertising and labeling claims. The difference was not large enough, however, to establish this as a major factor in explaining self-medication.

In fact, there is very little to distinguish the questionable self-medicators in the areas of attitude and health orientation that were investigated. Not even attitudes toward physicians and the medical profession, or the tendency to accept or reject the judgment of physicians, showed meaningful differences between the self-medicators and the general population.

Prolonged self-medication, at least as defined and investigated here, may result more from the situations in which people find themselves than from fundamental attributes of background or belief. It may even be, therefore, that almost everyone is a potential questionable self-medicator,

lacking only the existence of a persistent "minor" ailment whose symptoms are greatly alleviated by some non-prescription medicine.

G. Self-Medication for Serious Ailments

The preceding section investigated self-medication for "common" ailments, in which the critical element was the length of time of the self-medication.

Some ailments are so serious that any self-medication undertaken without a physician's advice is questionable, regardless of time intervals. In other areas, self-medication itself may not be questionable, but the expectation of a cure, rather than just symptomatic relief, is an indication of a serious misconception.

Self-medication

Any self-medication for heart trouble, high blood pressure, or diabetes is questionable: yet 1% to 2% of those who said they suffered these ailments said they had used medication not recommended by a physician or anyone else who provides a health service. These proportions represent under 1% of the total sample, and hence the total population.

From over 20% to over 30% of the reported sufferers from asthma, allergies, and hemorrhoids indicated self-medication, accounting for 1%, 5% and 6%, respectively, of the total sample. Of course, self-medication for these ailments is not, in itself, a clearly questionable practice, since various non-prescription medicines may bring symptomatic relief, and the ailments are seldom life-threatening.

Expectation of a cure

There are no medicinal "cures" for any of the six ailments investigated, but substantial numbers of the public are confused on this issue. All reported sufferers of the ailments were asked if they had ever used medicine supposed to "clear up the cause of the ailment, or cure it completely" (as opposed to "only make you feel better for a little while"). From 4% (diabetes) to 20% (asthma) of the sufferers said they had used a supposed "cure".

In the majority of cases the supposed cure was said to have come from a physician. Data from this survey do not permit a determination of whether or not doctors are actively contributing to patient expectations in this area, but it does appear that many patients do not understand the nature of the therapy they are being given. (In some instances, of course, encouraging or at least permitting patients to hold high expectations is a useful practice.)

Classification of practices

As indicated, any self-medication for heart trouble, high blood pressure, or diabetes was considered a questionable practice, regardless of whether or not it was supposed to be a cure. One, three, and one percent, respectively, of the total sample reported having practiced self-medication for these ailments.

Self-medication expecting a cure, rather than just symptomatic relief, is a questionable practice in the case of asthma, allergies, or hemorrhoids, and 1% or less of the total sample reported such a practice for each ailment.

Combining the six categories under investigation accounted for seven percent of the total sample.

Characteristics of questionable self-medicators

Some of the six categories included too few people for a reliable analysis of their characteristics. On the other hand, persons in the six categories were too different from one another to permit uncritically combining them into a single category for analysis.

Despite these severe analytic difficulties, a few conclusions are possible when the questionable self-medicators are compared with people having the same ailments but no questionable self-medication.

Questionable self-medication in these areas seems to be more typical of men than of women. Susceptibility does not increase with advancing age, and seems likely to be unrelated to income. The questionable self-medicators may have more education than those with the same ailments but no questionable self-medication.

Perhaps because of the analytic problem described, no patterns of differences in the areas of attitude and orientation emerged clearly enough to support conclusions.

Of particular interest is the fact that the questionable self-medicators explored in this section were not even distinguished by a generalized tendency to self-medication. Their tendency to self-medicate the "common" ailments of sore throat, cough, acid stomach, headache, and skin rash seemed no greater than that of comparison groups. In other words, practicing self-medication for "serious" ailments does not appear to be related to self-medication for "common" ailments.

H. Arthritis-Related Practices

Incidence

One-fourth of the sample claimed to have had arthritis, rheumatism, or some related disease. The incidence increases markedly with age, with just over half of the respondents aged 65 or older claiming arthritis/rheumatism.

Diagnosis

About four-fifths of all those claiming arthritis/rheumatism said a physician had diagnosed it. Most of the remainder said no one who gives a health service had diagnosed the condition they thought they had, but a few people did cite other practitioners, primarily chiropractors.

Among those claiming to have arthritis/rheumatism men are somewhat more likely than women to be relying upon self-diagnosis. Those in the youngest age category (under 30) and those in the upper age categories are less likely to be relying upon self-diagnosis than those in the middle age categories.

Sources of advice and treatment

Over 80% of those claiming arthritis/rheumatism indicated they had gone to a physician for advice or treatment. Those in the low-middle age categories once again are least likely to have gone to a physician. Use of a chiropractor for these ailments is most common among

older sufferers (14% of those sufferers aged 65 or older) and sufferers with less education.

The patients of chiropractors claimed to have obtained relief in the same proportion as the patients of physicians -- a finding that bears much more upon the perceptions of patients than upon the real efficacy of any treatment, of course.

Arthritis/rheumatism "cures"

Over a fifth of the reported sufferers said they had used something supposed to cure or clear up completely their arthritis/rheumatism, rather than just help the symptoms. In actuality, of course, arthritis is not considered by qualified physicians to be a curable condition.

A clear majority of those who used a supposed medicinal "cure" were talking about something received from a physician, about one-fifth of them had used something not recommended or advised by a physician that they thought was a cure.

Many of those who said they had used an arthritis "cure" cited prescriptions by a physician, or cortisone, or aspirin. Obviously, there is a great deal of confusion on the part of the public as to the meaning of a "cure".

Those who used something they thought was a cure that was not obtained on a physician's advice are of special interest since they are engaging in a clearly questionable practice or evincing a serious misconception about non-prescription medication. About 4% of all reported arthritis/rheumatism sufferers (1% of the total sample) fell into this category.

The non-physician "cure" users were older than arthritis/rheumatism sufferers who had followed no questionable practices, and had less education and lower incomes. They more often claimed good health, but they also reported more worrying about their health. They seem to be more critical of doctors than the sufferers who followed no questionable practice. Their responses to some personality scale items suggest a pattern of cynicism and pessimism about life.

Diet

Nine percent of the reported arthritis/rheumatism sufferers -- 2% of the total sample -- said they had changed their eating habits or used special foods, a practice that informed opinion says is ineffective. Two-thirds of these people were acting out of a real belief they would be helped (as opposed to just thinking it was worth a try). An even higher proportion said they were, in fact helped.

Older sufferers were more likely than younger ones to have tried treating arthritis/rheumatism with food or diet.

The "diet changers" indicated more worry about their health than arthritis/rheumatism sufferers who followed no questionable practice, but they did not evaluate their health as poorer.

"Diet changers" tend to be more critical of doctors and the medical profession than arthritis/rheumatism sufferers with no questionable practices. They are more impatient for results when undergoing treatment. They are more favorably impressed by certain practices, such as advertising and claiming "secret" treatments, that are usually associated with unethical "doctors".

The "diet changers" seem less inclined to general self-medication than other arthritis/rheumatism sufferers, and than the total sample. Self-medication and self-treatment with diet seem to be perceived differently by them.

Joint lubricants

The idea of treating arthritis/rheumatism by somehow "lubricating the joints" is considered a misconception by authorities. However, 13% of the reported sufferers -- 3% of the total sample -- had tried just that. About half of those who tried this practice "really believed it would help them", and half "just thought it was worth a try". Three-fourths of the users, however, believed that it did, in fact, help them. (Much of this satisfaction can result from the well-known "placebo effect". Analgesic ointments can also relieve discomfort, and if they are oily some people may think they work by lubricating joints.)

One-third of the "joint lubricators" said they had been influenced by broadcast commercials. (For none of the other arthritis/rheumatism treatment practices investigated did large numbers of followers cite advertising or other commercial or media influences upon them.)

The "joint lubricators", when compared to arthritis/rheumatism sufferers who followed no questionable practice, included more women, and they had a lower level of education and income. More of them grew up in the South.

The "joint lubricators" worry more about their health, but do not actually evaluate it as poorer, than arthritis/rheumatism sufferers with no questionable practice.

The "joint lubricators" seem more critical of the orientation of the medical profession than arthritis/rheumatism sufferers who followed no questionable practice, but there was little difference in the criticism of the altruism of doctors.

"Joint lubricators" have more of a general orientation of impatience for results when undergoing treatment.

Massagers or vibrators

Most authorities do not consider electrical massagers or vibrators, used at home, a worthwhile treatment for arthritis or rheumatism. One-tenth of the sufferers -- about 3% of the total sample -- indicated they had tried it, however. Almost half of the users "really believed it would help" (as opposed to thinking it "just worth a try"). Two-thirds of all users, however, said it did, in fact, help them.

The massager or vibrator users were not very different demographically from the arthritis/rheumatism sufferers who followed no questionable practice.

Massager or vibrator users show the same pattern of worrying about their health but not evaluating it as poor as the rest of the groups examined in this section. They show a greater tendency than the arthritis/rheumatism sufferers with no questionable practice to trust their own judgment of a medicine's effectiveness over that of a physician. They show the same tendency as the other groups examined to be impatient for results when undergoing treatment.

Brass or copper jewelry

About 1% of the arthritis/rheumatism sufferers -- well under 1/2% of the total sample -- said they had worn brass or copper bracelets, wire, or jewelry to help their arthritis/rheumatism. The belief that body contact with certain metals has therapeutic value is an old one that has never died out, despite strong contradiction by qualified authorities, and the lack of any evidence of its effectiveness.

While the number of brass or copper gadget users available for analysis was quite small, their differences from the arthritis/rheumatism sufferers who followed no questionable practice were often so large that confidence can be placed in the results.

The jewelry/gadget users tended to be women, to be older, and to have low education and incomes when compared to the sufferers who had no questionable practice.

The jewelry/gadget users evaluated their health as being better, but they reported more worrying about their health. They tend to be more critical of physicians and the medical profession, and are more inclined to trust their own judgment of a medicine's effectiveness over that of a physician. Their criticism of physicians shows itself in a considerable tendency to change doctors when they become dissatisfied. The "personality scale" results suggest that they are inclined to take a dim view of life and the world.

I. Cancer-Related Practices

Questionable practices or beliefs in dealing with cancer were uncovered in the survey. However, they represented a very small portion of all those who reported cases of cancer in which they were involved, and a tiny portion of the total sample.

Diagnosis or treatment by people other than physicians, use of non-prescription medicine supposed to be a cure, and treating cancer with diet were among the practices reported, often by only one or two respondents.

Too few followers of any practice that might be judged questionable were available for any sort of analysis. Such a result is not surprising in a household survey, which is not an appropriate strategy for researching events that incapacitate the victims, rendering them unavailable for interview.

J. Health Practitioners

Incidence of use

Virtually everyone in the United States has had the services of a medical doctor at some time in his life. Any exceptions would be living in such peculiar circumstances that a household survey would be very unlikely to reach them.

Competing health practitioners are more rarely used. About one-fifth of all respondents had ever gone to a chiropractor, just under 1/2 percent had used a homeopath, just over 1/2 percent had used a naturopath, and over a tenth had

used an osteopath. Osteopaths are now generally recognized as qualified physicians. Homeopathy, once a leading branch of the medical profession, now generally regarded as outmoded, has largely disappeared. Chiropractic and naturopathy, with many more followers than homeopathy, are monistic systems regarded as basically fallacious by the scientific and medical community.

While older people are more likely to have used practitioners other than M.D.'s, it may simply be that, having lived longer, they have developed more health problems and had more time to encounter any sort of practitioner.

While there were procedural difficulties in determining exactly the conditions treated by chiropractors, it appears that about one-fourth of the users had seen chiropractors for conditions other than the back, neck, muscle, and joint problems that they most frequently treat.

Characteristics of homeopath and naturopath users

The number of homeopath and naturopath users was rather small for statistical analysis, but when they are considered together, some confidence in conclusions is possible, in areas where their patterns are similar.

Homeopath and naturopath users are considerably above average in age. The difference was so great that a control for age was needed in making other comparisons, lest characteristics related to age alone appear to be linked to homeopath or naturopath use. Thus, in establishing the conclusions that follow, the homeopath and naturopath users were compared not only to the total sample but also

to that portion of the total sample aged 50 to 64, which is the bracket where the median age of the homeopath and naturopath users fell. Differences emerging from such a comparison cannot be attributed to age alone.

Homeopath and naturopath users included more women than either the total sample or that portion of it aged 50 to 64. There is no evidence that use of these practitioners is more common among people of little education or low incomes.

Homeopath and naturopath users are likely to evaluate their health as being good.

While homeopath and naturopath users did not seem especially critical of the medical profession, more of them than the comparison groups reported ever having changed doctors because of dissatisfaction.

The homeopath and naturopath users were not distinguished by any tendency toward self-medication, or to downgrade the judgment of physicians. They were no more impressed by a series of practices and claims often associated with unethical "physicians". They did show a tendency to be more impressed than the comparison groups by some questionable medical advertising and labelling claims, but the significance of this is not clear, since they were no more inclined to self-medication.

Characteristics of chiropractor users

About one-fifth of the sample had ever gone to a chiropractor. About one-fourth of the chiropractor patients -- 6 percent of the total sample -- had not restricted their use to problems of the back or neck, or other muscular or joint problems.

Chiropractor patients tend to be older people, and those who used chiropractors for conditions other than joint or muscle problems were even older than the total group of chiropractor patients. The total group of chiropractor patients had about the same education and income as the total sample, and more than the total sample aged 50 to 64 (which is where the median age of the chiropractor users fell). The subgroup who used chiropractors for conditions other than joint or muscle problems had lower education than the total sample, but still had more than the 50 to 64 year-olds; they were lower than both comparison groups on income. In short, chiropractor usage as a whole is associated with above average education and income, if anything, but those consulting chiropractors for conditions outside the usual area of chiropractic practice are perhaps a little lower in education and income than people in general.

The total group of chiropractor patients had a high incidence of males, due entirely to those consulting chiropractors for joint or muscle problems: those seeing chiropractors for other conditions actually had a low incidence of males.

In the areas of attitude and orientation, the chiropractor patients who had not restricted their use to joint or muscle problems were not very different from the total group of chiropractor users, so the distinguishing characteristics that emerged apply to both groups. Such differences were not numerous.

While chiropractor patients do not seem to hold especially critical opinions of physicians and the medical profession, more of them than the comparison groups reported ever having changed doctors because of dissatisfaction.

Chiropractor users, and especially those who were treated for something other than joint or muscle problems, more

often than people in general reported having gone to health practitioners who had made claims or engaged in practices that the medical profession considers unethical: advertised, claimed secret treatments, etc. They were not marked off by their awareness of the questionable nature of these practices, but, while very small proportions of the total sample had gone to such practitioners, more chiropractor patients had.

Chiropractor patients have a greater tendency than people in general to trust their own evaluation of a medicine over that of a physician.

K. Hearing Problems and Practices

Incidence of hearing problems

Fourteen percent of the sample -- 27 percent of the sample aged 65 or older -- said they had ever had trouble with their hearing. Hearing trouble was more often reported by those with little education and income, but that is probably a simple reflection of the lower education and income of older people.

Medicine for hearing

About four percent of those reporting hearing trouble -- 1/2 percent of the total sample -- had bought non-prescription medicine supposed to help their hearing. Three-fourths of them "really believed it would help" (as opposed to those who "just thought it was worth a try").

Characteristics of the non-prescription medicine users

The number of non-prescription medicine users is quite small for reliable statistical analyses. However, the practice is so clearly questionable, according to authorities, and the characteristics of this group so striking, that some conclusions are possible.

The non-prescription hearing medicine users did not differ from the total sample on age, which means that among people with a hearing problem they are relatively young. Their education and incomes are low. A higher proportion are male than exists in the general population.

While the non-prescription hearing medicine users did not evaluate their health differently from the total sample, they reported more worry about it. Many more of them claimed to have seen a doctor very recently.

Despite their report of recent visits to a doctor, the users of non-prescription hearing medicine revealed, in several ways, a tendency to be less psychologically reliant upon physicians than are people in general. They have more critical opinions of doctors and the medical profession, and more of them have changed doctors because of dissatisfaction. They have a greater tendency to trust their own judgment of a medicine over that of a physician, and a greater tendency to self-medication generally.

The non-prescription hearing medicine users seem more impressed than people in general with such practices in advertising and labelling over-the-counter medicine as testimonials, quotations from doctors, and claims of permanent cure.

The "personality scale" results showed a tendency for the non-prescription hearing medicine users to see the world as a threatening place, where one should be prepared for the worst, and where the individual has little power to control his fate.

Hearing aids

Thirteen percent of those with hearing problems -- about two percent of the sample -- said they had bought a hearing aid. Just over half said they had purchased a hearing aid from someone other than a medical doctor. (Also, just over half said they had purchased from a medical doctor, so some people had used both sources.)

Those who had bought hearing aids not recommended by a medical doctor reported a higher degree of satisfaction with their effectiveness and comfort than the purchasers through a physician, although satisfaction from both sources tended to be high. Other evidence may contradict this expressed satisfaction, however: many more of those not purchasing through a physician had bought more than one hearing aid.

Characteristics of two groups of hearing aid purchasers

The non-M.D. purchasers were considerably younger than those whose purchases had all been with the recommendation of a medical doctor, and had higher incomes, although there was no difference in education, despite the age difference.

The non-M.D. purchasers have a tendency to question the judgment of physicians. More of them than the M.D. purchasers had changed doctors because of dissatisfaction. More of them would rely upon their own evaluation of a medicine over that of a physician. They showed a greater tendency to self-medication for a series of "common ailments". However, their opinions of the medical profession, in the abstract, were not more critical.

Fewer of the non-M.D. purchasers had seen a doctor recently.

L. "Aids" to Quitting Smoking

Incidence

Just under one-twentieth of the total sample reported they had bought something, without a prescription, that was advertised as a help in quitting smoking. Over half of these people said broadcast commercials had influenced them, and about a fourth of them cited print advertisements. The great majority of the buyers of these products said they "just thought it was worth a try" (as opposed to "really believing it would help"), and only a small minority said that they were, in fact, helped.

Characteristics of users of aids to quitting smoking

The persons who bought these products, when compared to the total sample, tend to have higher educations and incomes. Apart from demographic differences, they were practically indistinguishable. Even on those items dealing with drug store remedies and non-prescription medicine advertising and claims, no meaningful pattern of differences was present.

M. Health-Related Attitudes and Opinions

A number of attitudes, opinions, and orientations in the area of health were studied. In some instances the primary interest in these orientations was their relationship with specific health practices that were singled out, but many of the orientations are also of interest in themselves. Presented below are the meaningful conclusions in this area.

- A quite sizable minority of the population is either unaware that certain practices are considered unethical by most physicians (e.g., advertising, claiming "secret" treatments, offering money-back guarantees), or rejects the idea that those engaging in these practices are likely to be unqualified.

Those people who tend not to report that the unethical practices would reduce their confidence in a doctor are, on the average, low in education and income. They included more old people than the total sample (but the age difference is not great enough to account for the education and income difference in itself). They more often grew up in the South, and on a farm. They showed a greater-than-average susceptibility to medicine advertising and labelling claims.

- A sizable minority of the sample indicated that they were positively influenced by medicine advertising and labelling claims that often have little objective validity as a basis for judging medicines. Quotes from "a doctor" and testimonials from many "ordinary people" are particularly likely to influence many people favorably.

Those who were especially susceptible to the claims had less education and lower incomes than the total sample; they did not differ on age. They more often grew up in the South, and are more rural.

The susceptibility of these people extends into the unethical practices of "doctors", described earlier. Also, they are especially likely to accept their own experience with a medicine, or that of other laymen, over the judgment of physicians when a medicine is

evaluated. They tend to be somewhat critical of physicians, and demonstrate a greater-than-average impatience for results when taking medicine. Their "personality scale" scores reveal a tendency toward fatalistic thinking and a sense of purposelessness in life.

- In three hypothetical situations respondents were asked to weigh the judgments of physicians in evaluating medicine against direct experience by themselves or other laymen. Over a third of the sample said they would go on using a medicine they thought had helped them even if a doctor said it was worthless; over a tenth said they would try a medicine that a friend said had helped him even if a doctor said it was worthless; in a "cancer cure" controversy pitting the judgment of "most scientists and doctors" that the "cure" is worthless against the testimony of a few people who claim it saved their lives, nearly a fourth of the sample sided against the experts.

In the first two hypothetical situations those who tended to reject a physician's advice were slightly younger and included slightly more males than the total population. They show a generalized tendency toward self-medication. If anything, they have more, rather than less, education than average.

Those siding against the experts in the "cancer cure" controversy were distinguished demographically only by slightly lower education. They seem to be generally gullible people, as shown in their greater susceptibility to unethical practices of "doctors" and to medicine advertising and labelling claims. Interestingly, they were only slightly more critical of the medical profession.

- There is a great deal of ambivalence about the motivations of doctors: majorities agree with the proposition that a lot of doctors are only interested in making money, and that most doctors put helping their patients above everything else. The extent of negative opinion of doctors and the medical profession for ignoring good "old-fashioned remedies", for concentrating too much on science instead of people, and for being against "new or different ways" is striking.

Those who are most critical of physicians and the medical profession tend to be older people, to be male, and to have low educations and incomes. Their negative opinions are associated with a tendency to accept their own experience or that reported by other laymen over the judgment of physicians when a medicine is evaluated. Their skepticism about doctors may be part of a more generalized cynicism, since they are also skeptical about medicine advertising and the value of drug store treatments, and their "personality scale" scores indicate a general sense of futility.

Chapter Four: DEPTH INTERVIEW RESULTS AND OVERVIEW

The major survey that occupies the bulk of this report was preceded and followed by depth interviewing (as described in the presentation of the study methodology). In most cases the depth interviews were conducted with persons known or believed to hold questionable beliefs or to have engaged in fallacious or questionable health practices.

Depth interviews are often more useful for deriving very broadly based and general conclusions than for establishing specific details, and this study is no exception. The relatively limited number of respondents available and the lack of scientifically rigorous sampling procedures means that the depth interview respondents are not precisely representative of specified populations. At the same time, the depth interviews were analyzed through a qualitative study of the tape recordings and interpretation by psychologists trained and experienced in the direct understanding of the significance of interview material. This analytic method has the advantage of great sensitivity to those orientations, attitudes, and feelings that underly behavior, often without the direct awareness of the person. The sensitivity is gained through bypassing quantitative coding and statistical tabulation, which makes a highly detailed analysis of outward characteristics difficult.

The qualitative research method also presents difficulties in the documentation of conclusions, since tables and numbers are replaced by the skilled judgment of analysts directly immersed in the interview recordings. Wherever possible in reporting the depth interview results, the nature of the material that led to a conclusion is presented as supporting evidence, but that evidence is necessarily less precise than in the statistical data.

Because the depth interviews established broad and general conclusions, rather than specific details, they are presented here as part of an overview, in conjunction with the broad and general conclusions that emerged from a careful consideration of trends in the quantitative survey results.

A. The Unsystematic Nature of Health Fallacies

To speak in terms of "the kind of person who is susceptible to health fallacies" may be seriously misleading if it implies that some unitary set of characteristics exists. The fact is, there is no single kind of person who is generally susceptible to all sorts of health fallacies.

The independence of fallacious behaviors

Many of the practices and behaviors investigated in the survey have little, if any, statistical relationship with each other. That is, people who engaged in some particular questionable practice were little more likely than people in general to have engaged in some other questionable practice.

Lack of system in health beliefs

Most people have not systematized and organized their health beliefs to any great degree, as was demonstrated in the depth interviews by their inability to describe the nature of their beliefs.

Some examples will clarify the point. Politics is an area in which beliefs and opinions are often highly

systematized. When asked "What are your political opinions?" most people find the question meaningful and can answer it. They themselves organize their opinions in this area, and even label themselves: Republican or Democrat, liberal or conservative, etc.

A second level of systematization can be illustrated by reference to child rearing. Here, many people would have trouble summarizing their opinions in as clear a fashion as with politics. The question would "call for thought", because they have not marked off and organized within themselves an area they think of as "child rearing beliefs and opinions". Nevertheless, a social scientist can discover regularities, and can classify people as loving or rejecting, permissive or authoritarian, etc. Thus, some systematization of beliefs about child rearing probably exists, although it is less distinct than for politics and people are less aware of it.

Health beliefs are probably even less systematized than beliefs about child rearing. People can express opinions on a multitude of specific issues, such as doctors' fees, the best over-the-counter cold remedy, and sleeping habits, but the question "What are your beliefs in the area of health?" is not meaningful. Furthermore, when the depth interviews probed, many people seemed not so much to report beliefs already understood as to make up their minds and formulate opinions on the spot. Much of what they offered was stated vaguely, or even tentatively.

Other relevant evidence is the inability of most people to talk meaningfully about the origin of their health beliefs. Returning to the earlier example, many people can talk meaningfully about the origins of their political beliefs, citing their parents'

views, events in the family history, such as poverty during the depression, higher authority, such as the Declaration of Independence, or fundamental beliefs about human nature. In contrast, many people find it very difficult to deal with the question of health belief origins.

The prevalence of contradictory responses to questions about opinions is another indication of lack of systematization. In the survey, for example, many people who said they agreed that the only way to lose weight is to eat less food than the body uses also agreed that sweating or massage is effective in weight reduction; many people who agreed that most doctors put helping patients above everything else also agreed that a lot of doctors only care about making money. The depth interviews provided many such examples. One respondent, asked about heredity versus health care as causes of good or poor health, epitomizes self-contradiction: "I think it is more or less hereditary, but I suppose not taking care of yourself properly is about the main reason".

There are, of course, exceptions to the finding that health beliefs and opinions tend not to be systematic and organized. Some of the chiropractor users interviewed accept chiropractic theory, as a framework within which they resolve nearly all health questions. Many strongly committed health food users similarly have a highly developed system of beliefs.

The exceptions only underline the importance of the basic finding. Since some followers of fallacious or questionable health practices do act from an ideology of organized beliefs it is easy to overstress the linkage between belief and action, especially since the relatively few people whose actions are bound up in a belief system tend to be vocal and

visible. But the idea that the way to understand a fallacious behavior is to find the fallacious belief that gave rise to it can be very misleading. Rather than false belief systems, the lack of any strong, coherent belief system seems to prevail. Fallacious behavior, most of the time, has origins other than fallacious ideology.

The independence of belief and behavior

Not only do most people lack a generalized systematic set of health beliefs, their specific behaviors are often not even supported by specific discrete beliefs. For example, while it is true that health food users in the survey were more likely than non-users to believe that the regular food supply does not supply enough vitamins and minerals, users of vitamin pills were no more likely than non-users to hold that belief. In another area, people who had followed certain questionable weight reduction practices seemed to have sounder beliefs, if anything, about how to lose weight than weight concerned people who had not followed any questionable practices. The conclusion must be that health practices are not necessarily related even to specific beliefs that seem logically related.

The depth interviewing supports this conclusion. It is significant in those interviews that explanations or reasons for health behavior were seldom volunteered. When asked about their behavior people reported it, and seemed willing to leave it at that. In other areas, by contrast, people often spontaneously go beyond a mere reporting of behavior to offer explanations. Ask "Who did you vote for?" and many people say "I voted for Smith because he seems to be for the working man". Ask "What are your hobbies?" and some people answer "I like fishing because it gets me outdoors with Nature". The volunteered "because" was

conspicuous by its absence in querying health practices and behavior.

In many cases persistent probing was necessary to draw out explanations of health practices, and even then they often seemed to lack conviction.

When respondents did discuss the reasons for following various health practices, citations of outside influence were more common than statements of the respondent's own beliefs or reasoning. Recommendations from friends or relatives, poorly remembered newspaper or magazine articles, and even clumsy extrapolations from physicians' advice were frequently offered as explanations for such practices as taking vitamins or seeing a chiropractor.

The difficulty that the depth interview respondents had in providing reasons for their behavior is evidence that looking for specific, consciously held false beliefs and misconceptions as a way of understanding fallacious behavior is unlikely to be highly fruitful.

B. Behavior Without Belief: Rampant Empiricism

If health practices do not follow from health beliefs, and faulty practices from faulty beliefs, how then are they to be explained?

Rampant empiricism

When people are forced by circumstances to act in an area where they have no rational or ideological basis

for choosing one alternative over another, they respond by trying random alternatives to see if they work. When faced with an unfamiliar door and someone else's key ring, one simply tries all the keys until he finds the one that works. Although this example is greatly oversimplified, many people seem to follow a similar system in their health practices.

It is a truism in the medical profession that what works best for one patient may not be the most effective for another, and good physicians may go through several alternatives until they find something to which the patient responds. But their choices are circumscribed by reason and prior knowledge. They may try several analgesics in dealing with a case of migraine, but they do not try an antibiotic to see if it works.

Many laymen have seized upon the idea that the response to medication and treatment is sometimes idiosyncratic, and they are basically correct in this view. They are not as likely to impose rational limitations on their choice of treatments as physicians are, however.

"What works for one person won't work for another", and vice versa, is a common theme used to justify all sorts of health practices. In fact, taking this stance eliminates the need to justify behavior. If it is literally true that responses of individuals to medicines, treatments, and regimens is totally idiosyncratic, then it is impossible to know in advance that something is likely to be worthless, however odd it may be, and random trial-and-error is an appropriate basis for trying and evaluating health practices.

Few people are literally random in trying things for

their health, of course. To do so would be to leave open an infinite number of possibilities, and everyone circumscribes his choices in one way or another. No one can literally try everything that a fanciful imagination could devise, and so the odds are that no one has ever tried to treat his arthritis by sleeping nude in the moonlight, eating scouring powder, or going without sleep.

But many people are much less inclined to put rational limits on the alternatives than a physician, scientist, or expert would be. All they need is a suggestion that something might work and it becomes worthy of a trial. If Aunt Mary says that radiation from the moon helped her arthritis, it does not matter who says that the idea is ludicrous, and that it is impossible for sleeping nude in the moonlight to be beneficial. How do they know, unless they have tried it? Even if they say an investigation showed it has no effect, that isn't conclusive, since what works for one person may not work for another.

It was noted previously that explanations of health practices often involve citations of outside influence rather than statements of beliefs or reasoning. Any kind of suggestion, whether from a friend or an advertisement, can move a health practice into that area where "it might work, and since everyone is different, the only way to know for sure is to try it".

The statistical survey offers confirmation that many health practices are tried not because of a committed belief that they would help, but because they are "just worth a try".

For many people, the tendency to empiricism in evaluating health practices is so strong that it precludes

making rational judgments. To some extent, then, it may be inappropriate to look for ideologies or fundamental characteristics to explain fallacious health behaviors. For some people, whether or not they engage in some questionable behavior may be simply a matter of whether it comes to their attention when they have a problem and are ready to try it and see if it works.

Of course, people can and do differ in the tendency to stress or ignore rationality in decision making, and this tendency is probably a fundamental correlate of fallacious health practices.

Sources of over-empiricism

There are several factors that give rise to the kind of uncritical empiricism that has been described. First, many people are aware that the unpredictability of individual response to medication is recognized in medicine, and believe that they are simply applying it in their own evaluations of practices and regimens.

Maintaining that the only way to evaluate a practice is to try it eliminates the need for thinking, and may thus be especially attractive to people who are mentally lazy. To make rational judgments requires some effort, especially since the information on which those judgments must be based is always secondhand, for the layman. Aunt Mary says some practice helped her, and recommends it, but a physician says there is no way it can be helpful. Who to believe? The easiest way is to avoid taking a stand, and attempt to find out simply by trying it oneself. The statistical survey demonstrated that a great many people are inclined to do just that. Mental laziness is certainly one reason for over-emphasizing empiricism.

The belief that what works for one person won't work for another seems to be attractive for emotional reasons, as well. It implicitly carries the notion that "I am a very special person, not one of a mass; my body's reactions may be unique, and therefore, 'scientific' generalizations about human bodies may not apply to me . The fact that a doctor tells me a diet pill is worthless is irrelevant: my body might react well to it. The fact that food is supposed to provide all the vitamins necessary may be true in general, but my body might need more."

The stress on individual uniqueness is self-satisfying, and ego building, and an assertion of individuality. It may be particularly attractive to persons otherwise lacking in self-esteem. The survey finding that many people engaging in questionable practices are somewhat distinguished by personality structures that involve a dim, cynical view of the world is probably relevant here, especially since some of those people coupled their general cynicism with a belief that they as individuals should try to find the bright side of things, and should behave optimistically. Asserting his individuality and uniqueness is one way a person can reconcile "thinking positively" in a world where things often go wrong.

At any rate, the over-empiricism typical of so many people is attractive not only because it makes difficult thinking unnecessary, but because it is ego boosting.

Faith and psychosomatic medicine

The belief that the reactions of individual bodies to treatment are unpredictable is not the only root of anti-rational thinking about health practices. The

psychosomatic concept--the mind's influence on the state of the body--has been accepted only too completely. Many people are ready to offer it as the reason why someone who says a practice helped him may be right, even though every authority says there is no way the practice can be helpful.

In a test situation, used both in the survey and some of the depth interviews, a "cancer cure" controversy was described, in which the judgment of scientists and doctors that a cancer treatment was worthless was pitted against the testimony of a few people who said it had saved their lives. Many respondents said that both sides were "right". In explaining how that could be, the idea of individual physiological responses to medicine emerged, as did the idea that if people have faith in a medicine that in itself can make it beneficial.

Large numbers of people, including many who sided with the "scientists and doctors", said the sale of the controversial "cancer cure" should not be legally banned. In the last analysis, they felt strongly enough that faith in medicine is important not to want to take it away from people who had that faith.

Psychosomatic medicine is, of course, a reality. But many people carry the idea to an extreme. For them, it is one more reason for denying, in effect, that rational judgments about health practices are desirable. As they see it, if faith in a medicine can accomplish anything, there is no basis for outlawing any health practice. The harm done by allowing ineffective products to be promoted does not occur to them.

The placebo effect and unaided recovery

The placebo effect has long been known to physicians

and researchers. If people think they are receiving a medication that is likely to help them there is a tendency for them to report improvement, even if the medication is, in fact, a sugar pill. Wishful thinking is involved, in which people convince themselves that they don't feel as bad as they did. There is often a genuine lessening of discomfort. There may even be, through the psychosomatic mechanisms, improvements that can be registered with objective physiological measures.

The placebo effect encourages the development of fallacious practices through the anti-rational, over-empirical approach that has been described. Simple unaided recovery or lessening of symptoms, which often occurs with many conditions, also assists in the persistence of fallacious practices. Were it not for these effects, the trial-and-error method of evaluating health practices would result in discarding those that proved to be valueless. But the placebo effect ensures that some valueless practices that someone thought were worth a try will be evaluated by some people as having been helpful, and recovery that was actually spontaneous is often credited to whatever treatment was being tried at the time.

C. Areas of Ignorance

The depth interviews and the survey located several important areas of ignorance that seem to contribute to fallacious or questionable health practices. Misconceptions and gaps in knowledge abound, of course, but those singled out for discussion here relate to fundamental issues.

Cure versus relief

A great many people do not distinguish in their think-

ing between a cure and symptomatic relief. From their point of view, their real problem is not the existence of some physiological condition, it is the pain or discomfort they feel. Anything that makes them feel better is seen as "curing" their problem. The distinction between reducing discomfort and eliminating the underlying cause of the discomfort is not sufficiently understood.

The confusion is not restricted to self-medication. There are people who report that their doctors have prescribed "cures" for their diabetes, or heart disease, or arthritis. In fact, some people seem to see anything coming from a doctor as an attempt to "cure" them. It may be that statements such as "this will make you better" or "this will improve your condition" or "this should fix you up" encourage this misconception.

In short, many people do not make the critically important distinctions between simple pain relief (e.g., analgesics for a backache) versus improvements in a condition (e.g., vasodilators for angina) versus a cure (e.g., antibiotics for a bacterial infection). Even those who can, when pressed, make the distinctions do not always take the trouble to do so.

Careless thinking in this area has some obvious implications. It can encourage unwise self-medication if people are satisfied by a mere reduction in discomfort. It makes the promotion of medicinal "cures" more credible, since the meaning of the word is so imprecise for many people. It can cause many individuals to accept implications of drug advertising that go far beyond the benefits actually claimed.

The importance of food and diet

A great many people are convinced that variations in diet produce many or most of the variations in health that exist. Three-fourths of the survey sample agreed with the proposition that "For most people who have bad health, a major reason is they don't eat right". Many people almost literally believe that "you are what you eat". Their first thought upon not feeling up to par is that they "must not be eating right"; in more than a few instances specific diseases, such as arthritis and cancer, are attributed to nutritional inadequacy.

The extent of the correlation that people perceive between diet and health can scarcely be overstated. The great majority of people in the depth interviews consider diet the most powerful single influence upon health. Even when asked to think critically about it--to examine their friends and decide if those with good and bad health are distinguished by the way they eat--the conviction is not seriously disturbed.

A major part of the concern is that wise selections of foods are not made, meals are not balanced, and too much "junk food" is consumed. Built-in inadequacies in the food supply are also believed to be serious wide-scale problems: contaminants, such as DDT; "additives", such as preservatives and artificial colors or flavors that may be harmful; refining and processing said to rob food of nutritional value. In fact, a very large majority of the population believes that there are problems with the nation's food supply serious enough to constitute threats to health.

There is, of course, good reason to be concerned about the healthfulness of food and to believe that diet and health are related. But the issue is the extent of the problem. There is a wide gap between the knowledge that eating properly is essential for good health and the beliefs that many people are in bad health because they don't eat right, that improper diet is the first thing to be suspected when one does not feel quite well, and that nearly any condition could be improved by eating better. Many people have crossed the gap.

While the idea that diet may be related to specific diseases is intriguing to many people, the health effects most commonly attributed to diet and nutrition are more general. A substantial majority of the population believes that tiredness and a lack of energy is nearly always the result of poor nutrition. Few people would disagree with the proposition that to have more energy one must eat better. And the rule is applied without first asking whether the diet has actually been inadequate: "If I feel run down, I must not be getting the right nutrition".

At least one of the sources of an overemphasis upon diet and nutrition as the prevailing cause of health problems, and particularly tiredness and lack of vitality, is obvious. It is a theme in a great deal of the promotion of nutritional supplements, and in the pronouncements of "health food" advocates.

The depth interviews lead to the suspicion that health education offered in the schools contributes to the overemphasis. The drilling that many people have

received on "basic food groups", how to balance a meal, and the sources and benefits of the various vitamins and minerals has succeeded in impressing them. Since health and hygiene courses tend to concentrate upon things that the individual himself can do for his health, there is much more concentration upon such things as diet, cleanliness, and sleep than upon such causes of disfunction as bacteria and virus infection, long-term tissue degeneration, and congenital weakness. One result of this relative stress may be the creation of the implicit impression, not entirely conscious, perhaps, that such things as diet are the major determinants of health.

While the subject was not specifically investigated, it is interesting to speculate upon the possible contribution of the word "vitamin" itself to an overemphasis upon the relationship between nutrition and well-being. The association between "vitamin" and "vitality" may have created the trend. If, on the discovery of specific substances in food that are involved in tissue growth and maintenance, they had been named "metzymes" or "aptilibs" instead of "vitamins", they might not have been popularized in the manner or to the extent that has occurred.

In many cases the overemphasis upon diet and nutrition as the cause of health problems may do no specific harm, beyond creating some needless anxiety. In some cases, however, it creates economic hardship when people feel it necessary to buy expensive products to meet the inadequacies they perceive. In other cases people may be deprived of a physician's help because they decide to treat a problem themselves, through diet.

Vitamins as placebos

The preceding section established that there is a pervasive feeling that improper diet is a leading cause of health problems. A related finding is that vitamin pills have become a great mass placebo.

The belief that taking vitamin pills will provide almost anyone with more pep and energy is so widespread as to be characteristic of society as a whole. Many people, perhaps a great majority, simply accept it as something that "everybody knows". There are other misconceptions about the benefits that most people can expect from supplemental vitamins and minerals, but the most powerful association is to overcome tiredness and produce vigor and energy.

Many people who take vitamin capsules or other nutrition supplements are certain that they are obtaining the energy they seek. Some people even claim that they can feel the drop in vitality if they miss a day. The placebo effect is strongly in operation.

Certainly the advertising of these products contributes to the belief that nearly anyone who feels he needs more energy can benefit from them. But the depth interview results suggest that another, less obvious, influence may be important. It appears that large numbers of physicians may be more or less deliberately using vitamins very much like placebos.

When a patient has a baffling problem, or complains of feeling tired, run down, or generally poor and

there is no evidence of organic illness, or he is simply suspected of being a hypochondriac, it appears that some physicians may be sending them away with the advice to take vitamin pills. From the physician's view it could be beneficial in several ways. If the difficulty is either imagined or psychosomatic, the vitamins may actually help by serving as a placebo, and they are relatively inexpensive and can do no harm. The patient does not feel neglected, resentment, or disdainful of the physician's skill, as he might if he were given nothing while his problem was investigated further. Besides, nutritional deficiencies can produce symptoms, so vitamin pills are cheap insurance.

At any rate, there is much reason to believe that many people feel supported by their physicians in the use of vitamin pills to produce extra vigor and general feelings of well-being.

Acceptance of advertising claims

Substantial numbers of people believe that advertisers, in the health field as elsewhere, are watched and regulated closely enough so that serious distortions are unlikely and outright fabrications are nearly impossible. There is a feeling that "they wouldn't dare" make up "evidence" to support a claim, or falsify testimonials, for example, because "they would be caught". The majority of people seem sufficiently skeptical of claims made in the abstract, but may fail to realize how easy it is for an unscrupulous advertiser to manufacture evidence and get away with it for long periods of time. The belief of many people is that claims made in black and white

(or on the air) must have some substance or no one would dare make them.

How recognizable are quacks?

The popularization of the word "quack" may have served no good end. The word itself is humorous, and quacks have become the object of humor. In countless jokes and presentations by comedians fraudulent health practitioners are portrayed as obviously and blatantly weird, hucksterish, or preposterous.

These associations not only prevent many people from taking the problem entirely seriously, they have a more subtle effect. Making fraudulent practitioners seem always so obvious, and labelling them so handily as "quacks", seems to have created an assumption that they are easily recognizable. Depth interview respondents said "I don't go to quacks", as if the decision to patronize a quack was a deliberate one. People know, of course, that quacks are not identified as such by a sign on the door, but they talk as if they were. Many people are perhaps not as wary as they should be, because of the way quackery has been popularly presented.

D. Underlying Orientations

The first section of this chapter cautioned that attributing fallacious health behavior to systematic or specific faulty beliefs or belief systems is an

oversimplification. However, the depth interviews did suggest that there are several ways of thinking (as opposed to the content of the thinking) that seem related to a tendency to engage in one or another fallacious practice.

Rampant empiricism

Approaching health practices as something that defies rational judgment and must be tried to be evaluated is so important that it was discussed in a separate section of this chapter. It is included here for the sake of completeness in listing the important underlying orientations that were uncovered, since this process is so heavily involved in so much questionable behavior.

Striving for "super health"

To a physiologist or a physician, bad health is generally the presence of disease or disorder, and good health is the absence of disease or disorder. Thus, good health is simply the absence of bad health. Good health is achieved, not by seeking it directly, but by preventing bad health. Disease and disorder are specific entities with specific causes (although the causes are not necessarily yet known). They are departures from the norm; the norm is good health. Good health is the "natural state": it exists as long as there is nothing wrong.

Many laymen have a different understanding of health concepts, and this may apply especially to those people

engaging in fallacious practices. To them, good health is not merely the absence of problems, it is a positive entity in itself. Merely preventing disease and disorder is not sufficient: that is only average health (just as the absence of poverty is not necessarily wealth). Good health is more, it implies something beyond the norm, and therefore unnaturally good. Achieving good health is not easy, since preventing bad health is not enough.

Really good health, in this view, is the presence of feelings of well-being, of having so much energy one is never tired, of never having aches and pains. For many people it even implies the absence of anxieties and the presence of happiness, contentment, and being at peace.

It is objectively true, of course, that people who are ill may lack energy and vitality, and that chronic tiredness, anxiety, or depression can be symptoms of disorder. But it would seem to be a hard fact that the natural state of man includes occasional tiredness and some unhappiness. It seems unreasonable to define perfect health as never being tired or unhappy. Some causes of fatigue, such as overwork, and some causes of anxiety, such as financial problems, have nothing to do with health considerations, and even a man in a hypothetical state of perfect health would be subject to occasional tiredness and unhappiness.

It appears that doctors and their patients may be operating with different conceptions of what good health is. And it may be that neither is aware that they do not share the same orientation. Certainly

many respondents seemed unaware that their conception of health may be broader than the professionals'. If so, it sheds some light upon the relationship between the "unsympathetic doctor" and the "hypochondriac". From his orientation a doctor may be entirely correct when he finds no disorder and pronounces a patient to be in good health, while the patient is equally right in insisting that his health could be better, if he defines good health as the absence of tiredness. To the patient, the doctor seems to be disbelieving his reports of symptoms, while to the doctor the patient is manufacturing symptoms.

This broad conception of health as a "better than natural" state could also explain the vagueness of health opinion and thinking that has been discussed. Since authoritative sources do not recognize "super health", and so do not discuss it, it remains somewhat vague for its adherents, and opinions about how to achieve it are likewise vague.

One of the key elements in the orientation described is that since "super health" is something beyond the norm, and beyond the mere absence of disorder, it is something that must be worked at. It does not come naturally. Since the orthodox medical establishment provides few clues as to how to achieve it, people are left to find their own way, including experimentation with the unorthodox.

For many people, food and nutrition seem a likely route to that state of health they idealize. They know that food supplies energy, and if they feel their energy is not up to the standard they want, it must mean that they are not "eating right".

Many committed health food users seem to be strivers after "super health", and much that has been said applies especially to them. But the relevance goes further. People who simply worry about their diet and seek to "eat better" and users of nutritional supplements also seem motivated in part by the ideal of "super health", as are many people engaging in other practices.

The notion of a gradient of good health is related by many people to a gradient of nutrition. There is a feeling, sometimes not well thought out, that the richer in nutrients the diet, the better the health. These feelings are not necessarily seen as being in contradiction to the professional's advice that vitamin and mineral intake above some necessary level offers no benefit.

What is the source of the tendency to define good health in unrealistic terms? Once again, there is a suspicion that courses in school are involved. Their stress upon hygiene and general well-being, rather than specific diseases and disorders, seems to support the idea that good health is something beyond the absence of bad health. People who take this notion too far can wind up with the orientation that has been described.

A confusion between cause and effect also seems to be involved. It is generally accepted that fatigue can increase susceptibility to disease, and that rest can hasten recovery. Anxiety and depression are known to produce physical symptoms. But somehow, such factors as these, which are properly seen as causes of physical health conditions, have slipped in some people's thinking to being manifestations of health. To them,

anxiety is not just something that can produce a health problem, it is a manifestation of inadequate health, and thus a health problem, in itself.

It is true, of course, that anxiety and depression can be manifestations of mental illness. But in thinking of health as the absence of any anxiety, depression, or tiredness, and in viewing it as something to be sought through such means as diet, many persons are involved in loose thinking about cause and effect.

The confusion between cause and effect was striking in many of the depth interviews. One respondent, when asked to explain in what ways his health was better than average, replied that he got a lot of sleep, worked hard, and had quit smoking--all potential causes, but not manifestations, of good health. Another respondent, when asked to elaborate on her opinion that poor diet was the major cause of bad health, described her husband's poor eating habits --when pressed, however, she admitted that he was in good health. Another respondent illustrated the nature of perfect health by describing a woman who was happily married, happy with her home, and served the right food to her family and herself.

Running together causes and effects encourages the development of the "super health" orientation by establishing such things as happiness and never being tired as goals to be sought through health treatment.

Impatience for results

People engaging in fallacious or questionable health practices may have a greater than average impatience for results when undergoing treatment. The survey showed that in many instances followers of questionable practices were more likely than people in general to agree that a medicine that does not help right away probably will not help at all. Such an orientation obviously could encourage a

great deal of experimentation, including the abandonment of treatments that could be effective in time in favor of something offering "quick relief".

Negative attitudes toward physicians and the medical profession

Not surprisingly, those engaging in many of the questionable practices investigated seem inclined to be especially critical of orthodox medicine and its practitioners.

A re-definition of hypochondria

A hypochondriac is generally thought of as one who exaggerates the poor condition of his health and imagines symptoms. This chapter has already offered one new view, suggesting that one aspect of the matter is the differing definitions of good health held by physician and patient.

The survey found that people engaging in questionable health practices seldom reported their health as being poorer than did people in general. In fact, they very often reported it as being better. They did report, however, worrying about their health more than people in general reported.

Thus, while it might have been hypothesized that hypochondriacs are especially susceptible to health fallacies, those engaging in the questionable practices investigated in this study do not fit the common definition, since they do not exaggerate the poor state of their health. Either the definition of hypochondriasis must be changed or it must be

concluded that hypochondriacs are less, rather than more, inclined to most of the questionable practices investigated.

On reflection, it does not seem altogether surprising that people who are convinced their health is poor should be uninclined to questionable practices. They may burden physicians with demands for attention, but if they are genuinely frightened about their health many of them will fear to depart from a physician's advice and procedures.

It is the person who is in no genuine fear for his health, but "enjoys" worrying about it (perhaps because he is striving for "super health"?) who seems the likely candidate for dabbling with various practices in a trial-and-error fashion. Believing that he has no actual specific threats, he can afford to indulge his "worrying" about his health. Thus, a preoccupation with health does seem to be related to engaging in questionable practices, but an exaggeration of the poor state of health does not.

"Personality"

It has been suggested that people who are susceptible to health frauds and quackery have a characteristic personality structure:

- A sense of powerlessness which inclines them to search for quick and easy solutions.

- Fatalistic thinking, which encourages non-rational decision-making.
- Insecurity, or mild paranoia, which can encourage attraction to quick and easy solutions.

The survey offers some support for these suggestions. For some, but by no means all, of the questionable practices investigated, the followers did seem inclined to take a dim view of the world, along the lines described above.

It should be recognized that the theorizing about personality in this area has often been concerned with obvious cases of fraud and quackery, while this survey, dealing with a general random sample, was concerned with more common and less dramatic questionable practices. From that point of view finding any personality differences, even though they were far from universal, can be considered as support for the hypothesis that personality factors are involved in fallacious health behavior.

One of the suggestions in this area deriving from this survey may be new. For some of the questionable practices where the followers tended toward a view of the world and life as being threatening to the individual, there was, at the same time, a sense of personal optimism. It may be that people who see the world as threatening but simultaneously stress the need to try to find the bright side of things, and not to give up, are likely to practice

the kind of uncritical trial-and-error that can lead to questionable actions.

E. Theories of Fallacious Health Behavior

It seems unlikely that any single explanation can cover all cases of fallacious health behavior. "Susceptibility to health fallacies" is not an entity, it must depend upon the fallacy involved. The category is too broad. To illustrate the point, consider that a theory of susceptibility to lung cancer is conceivable. Research might establish and specify hereditary constitutional differences that make people likely cancer victims, and environmental factors, such as smoking and other things yet undiscovered, could be introduced as precipitating causes. In contrast, can a "theory of susceptibility to hospitalization" be developed? It would have to cover all the environmental and constitutional factors related to diseases quite different from one another, plus factors related to causes of injury, both personal (clumsiness, the Freudian death wish) and environmental (employed in a hazardous occupation, engaging in risky sports activities), plus finances (people with money probably get better health care and thus more frequent hospitalization). There are too many situations involved in hospitalization for a single theory to be very coherent.

In some forms of fallacious health behavior the victims are desperate, even on the verge of death: a situation highly favorable to unproven cancer treatment, faith healing for persons paralyzed, "cures" for crippling arthritis, etc. Such situations involve different considerations from the kinds of fallacies receiving most attention in this study.

Even within the purview of this study, logical considerations suggest that at least two phenomena be distinguished. Some questionable practices involve specific problems or symptoms: attempts to alleviate arthritis, self-medication for respiratory problems, etc. Others are just general attempts to "feel better", or "be healthier". In one case, a person is on the defensive against health problems; in the other, he is on the offensive to achieve good health. It could scarcely be surprising to find that these situations must be understood in different ways.

Several descriptions seem necessary to cover most of the situations encountered in this study:

1. Some people with a "mild" health problem who are ignorant or gullible become convinced that some practice, which may be fallacious, will help them.
2. Some people with a "mild" health problem adopt the view that anything that does not cost too much in money, effort, or time is worth a try. These people tend to be "rampant empiricists", as discussed earlier. Since they can act without commitment, they are not necessarily especially gullible.
3. Some people with an ideal of "super health" adopt the strategy of "rampant empiricism".

These people need not be especially gullible or ignorant, but having a preoccupation with health, in the absence of real fear, being impatient, and having a personality that sees a striving individual in a threatening world may predispose them to questionable action.

4. People with the characteristics and ideal described above can, if they are also gullible or ignorant become convinced that some practice will be beneficial.

While this classification may be an over-simplification, it points out the necessity for different explanations for different situations.

Chapter Five: ACTION IMPLICATIONS

The implications of research for operational decisions or action are seldom so obvious as to be completely unarguable. Survey research describes what people are doing now, while an action implication involves a prediction of what they will do if a specified change in conditions is brought about. Such predictions must be based upon an understanding of the causes of behavior, and it is a truism that the survey research method does not establish causation with genuine scientific precision. However, the clues and suggestions it can provide often support conclusions about causation that seem highly probable, though not absolutely, proven, and it is in such a way that implications for action are derived.

Readers of this report will draw their own conclusions from it. In many cases, subject matter experts are particularly qualified to draw implications from findings related to their specialties.

In this chapter, some rather broad implications that are consistent with general trends observed in the study results will be pointed out.

1. In planning steps to reduce the incidence of irrational health practices, it does not seem advisable to think about the "kind of people" an overall program should be aimed at. Whether the victims of health fallacies are old or young, rich or poor, is in large part related to the specific health area involved. There appears to be no population segment to leave out of a total program.
2. A "total program" may not be the best way to plan. Since fallacious practices differ in the kinds of people who tend to engage in them, the idea of a single, unitary phenomenon called susceptibility to health fallacies does

not seem useful. Instead, it would seem better to plan efforts to deal with specific problem areas.

3. The study results indicate that many health practices are not strongly based in any belief system. That is, it is often not the case that faulty behavior follows from faulty specific belief about the efficacy of some practice. People act in this area without systematic beliefs in what they are doing; they often simply follow a trial and error process. Government has two potential approaches for reducing fallacious practices: (1) educating and informing people so they will avoid them, (2) regulation of the suppliers of health products and services. Since it is apparent that many victims act on the basis of trial and error processes rather than specific misinformation and faulty belief, it follows that educational efforts can not replace regulation. To the extent that fallacious practices do not result from misinformation, supplying correct information does not solve the problem.
4. While many fallacious practices do not seem to follow from specific faulty beliefs, so that there are limits on the value of supplying correct information as a means of controlling fallacious practices, there do appear to be some general orientations, as distinct from specific beliefs, that are related to fallacious practice. Such orientations might be subject to change by educational programs. The education must be fundamental and intensive, beginning in the schools; it is not likely that pamphlets and posters could have a great affect upon the deeply rooted orientations under consideration.
5. One such orientation is the widespread type of irrational thinking that has been called "rampant empiricism", for want of any better term. Millions of consumers appear

to be basing health decisions on the idea that since there are individual differences in people there is a chance that almost any treatment may be beneficial. They reason that the only way to find out whether something works is to try it -- a serious oversimplification in health matters. Rational judgment is ruled out, since no evidence that a practice failed to help other people is sufficient to eliminate the possibility that it may appear to help someone. Psychosomatic effects, and unaided recovery, which occur frequently, reinforce faith in the results assumed from this uncritical trial and error approach.

The fallacy of do-it-yourself medication based on irrational concepts of trial and error, and of testimonial evidence influenced by unaided recovery and psychosomatic effects, seems a proper, but neglected, area for modern health education. It is probable that there is an enormous waste of money, not to mention adverse health effects, from misguided consumer experimentation with health products. A fundamental education program would have to convince people that individual differences in treatment response, while real, are not so great that they preclude rational judgments and justify total empiricism, and that some practices can be eliminated as certain to be worthless, without trying them.

6. Continued stress seems needed on the value of competent medical care. Related to the problem of "rampant empiricism", the study showed that large numbers are inclined to prefer their own judgment in health problems, over that of a physician when they think they have direct evidence from their own experience or that of other laymen. This can occur even with persons who have a continuing and satisfactory relationship with their physicians. Education on such things as the nature of

scientific medicine, the importance of thorough examinations and diagnoses, and the limitations of lay knowledge, might make people less willing to disregard authoritative advice.

7. In fact, confidence in the medical profession in general could be improved. Large numbers of people question whether physicians put the welfare of their patients high enough, and whether modern medicine provides the health care that it should. In many instances, those following questionable practices were especially likely to lack confidence that physicians and the medical profession are really devoted to patient welfare. While it is difficult to prove that it is the lack of confidence that is the cause of the questionable practices, the relationship is certainly plausible.
8. Another potential area for basic health education is the "superhealth" orientation that was described. Many people have an ideal of really good health as meaning never being tired. Some even extend it to include happiness, and never feeling any anxiety and depression. Such unrealistic expectations are not, of course, met by physicians and the normal resources of health care, so many people look elsewhere. If people could be convinced that some conditions, no matter how desirable, are not to be defined as involving health, some of the pressure to find health practices that make one "feel better" might be relieved.
9. One exception to the generalization that fallacious practices are not rooted in specific false beliefs is the very common overestimation of the relationship between health and diet. It appears that a large majority of the population believes that poor diet out-ranks all other causes of health problems and that almost

everyone would experience notably better health with a better diet. By no means everyone with this belief acts strongly upon it, but many do.

An isolated attack on this oversimplification might not be successful, since many believers would counter that "what works for me may not be true for anyone else". This area should definitely be a part of a more fundamental nutrition education effort, however.

10. Another specific misconception that should be corrected is the idea of many people that advertisers are so rigidly and systematically policed that outright misstatements of fact are impossible. People are realistically wary of general claims, such as "new and better", but they discount the possibility of manufactured evidence, made-up testimonials, and specific false claims of effectiveness.
11. Educational activities to warn the public against "quacks" may not be effective because popular portrayals of quacks as obviously humorous, weird, or preposterous cause people to think quackery is easily recognized. The efforts to inform the public in this area should be re-examined.
12. Generally, information and education directed at specific problems should not be couched in generalities. People are quite capable of absorbing the abstract principle that extended self-medication is undesirable while they continue to dose themselves with laxatives every day, for example. They seem to view their own practices as being exceptions to a rule that they claim to support,

and in some cases they seem to think of any practice they engage in regularly as being more like hygiene than treatment or medication. They need specific guidelines. To continue the example of self-medication, they need to be told how many days or doses constitutes "prolonged use".

13. A research program on the ways physicians may contribute to misconceptions seems desirable. Apart from a general concern that people may readily distort what a doctor tells them unless he is quite careful and specific, the practice of "psychosomatic medicine" by physicians may create problems. Prescription of a placebo (vitamin pills, for example) or dispensing such general advice as "be sure you eat balanced meals", may help a patient through a problem, and thus be medically sound. But such practices may also contribute to lasting misconceptions, such as convincing the patient to try vitamin pills for any illness, instead of seeing a doctor.

This analysis is admittedly speculative. It suggests a likely area for further investigation.

14. Another area for critical examination is the effectiveness of courses and material on health and nutrition presented in schools. Again, the analysis is somewhat speculative, since it depends entirely upon the depth interviewing that was done, but there is a suggestion that schools may contribute to the concept of "superhealth" and the over-stress upon nutrition as a health panacea. It may be that health courses in the schools stress "hygiene factors", such as diet, rest, and cleanliness so much that other health factors, such as bacteria or virus infection, congenital weaknesses, and long-term tissue degeneration,

are underplayed. If the material also overstresses the relationship between health practices and such things as energy and happiness, in the effort to convince students of the importance of health, some people may be left with the orientation of "superhealth" to be pursued by various means.

**NATIONAL
ANALISTS, Inc.**

PART II

DETAILED SURVEY DATA

PART II

Table of Contents

		<u>Page #</u>
Chapter One:	DEMOGRAPHIC CHARACTERISTICS OF THE SURVEY SAMPLE.....	1
Chapter Two:	VITAMIN PILLS, TONICS, AND NUTRITION SUPPLEMENTS.....	7
Chapter Three:	FOOD, NUTRITION, AND "HEALTH FOOD"..	46
Chapter Four:	WEIGHT CONTROL.....	76
Chapter Five:	BOWEL REGULARITY.....	105
Chapter Six:	SELF-DIAGNOSIS.....	120
Chapter Seven:	SELF-MEDICATION FOR COMMON AILMENTS.....	126
Chapter Eight:	SELF-MEDICATION FOR SERIOUS AILMENTS.....	142
Chapter Nine:	ARTHRITIS-RELATED PRACTICES.....	157
Chapter Ten:	CANCER-RELATED PRACTICES.....	193
Chapter Eleven:	HEALTH PRACTITIONERS USED.....	200
Chapter Twelve:	HEARING PROBLEMS AND PRACTICES.....	222
Chapter Thirteen:	"AIDS" TO QUITTING SMOKING.....	233
Chapter Fourteen:	GENERAL HEALTH-RELATED BEHAVIOR, ATTITUDES, AND OPINIONS OF THE POPULATION.....	236
Chapter Fifteen:	OVERLAP OF THE GROUPS INVESTIGATED..	280
APPENDIX A:	THE QUESTIONNAIRE	
APPENDIX B:	THE PERSONALITY SCALES	

**Chapter One: DEMOGRAPHIC CHARACTERISTICS OF THE SURVEY
SAMPLE**

In those chapters presenting the detailed findings of the survey, the relationship of health opinions and practices to the demographic characteristics of the respondents are shown. To assist in judging the meaning of those relationships, the demographic characteristics of the total sample are shown here.

The primary analytic variables were sex, age, education, and income. The distribution of the sample on these characteristics, and the interrelationships among them, are shown in Tables 1 through 4. All percentages in this report, including these, are based upon the weighted sample.

Education and income are related as would be expected: higher amounts of each are associated with higher amounts of the other. Therefore, when the followers of a questionable health practice are distinguished from the total sample on education and income (as occurs often in the chapters to follow), it could be that only one of the two is fundamentally related to the behavior. For example, if some practice is engaged in primarily by people with low education, those people will probably also have lower incomes, even though income need not be causally related to the practice.

Sex is not strongly enough related to the other variables to create problems in interpretation.

Age is negatively related to both education and income: older people tend to have lower education and incomes.

Table 1

Percent of the Sample in Age,
Education, and Income Categories, by Sex

	<u>Total Sample</u>	<u>Male</u>	<u>Female</u>
<u>Age</u>			
Under 30	26	26	26
30 - 39	18	18	17
40 - 49	20	20	20
50 - 64	22	22	21
65 and over	15	14	16
<u>Education</u>			
Less than high school	41	41	41
High school	32	29	35
Beyond high school	27	30	24
<u>Annual Family Income</u>			
Under \$3,000	14	11	16
\$ 3,000 - 6,999	32	30	34
\$ 7,000 - 11,999	33	36	30
\$12,000 and over	21	23	20

Table 2

Percent of the Sample in Sex,
Education, and Income Categories, by Age

	<u>Total Sample</u>	<u>Age</u>				
		<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
<u>Sex</u>						
Male	47	46	49	47	48	43
Female	53	54	51	53	52	57
<u>Education</u>						
Less than high school	41	21	30	39	55	72
High school	32	41	38	35	26	13
Beyond high school	27	38	31	26	19	15
<u>Annual Family Income</u>						
Under \$ 3,000	14	7	5	8	15	43
\$ 3,000 - 6,999	32	33	30	27	33	37
\$ 7,000 - 11,999	33	37	42	36	32	14
\$12,000 and over	21	24	23	29	19	7

Table 3

Percent of the Sample in Sex, Age,
and Income Categories, by Education

	<u>Total Sample</u>	<u>Education</u>		
		<u>Less Than High School</u>	<u>High School</u>	<u>Beyond High School</u>
<u>Sex</u>				
Male	47	47	42	52
Female	53	53	58	48
<u>Age</u>				
Under 30	26	13	34	37
30 - 39	18	13	21	20
40 - 49	20	19	22	19
50 - 64	22	29	18	15
65 and over	15	26	6	8
<u>Annual Family Income</u>				
Under \$ 3,000	14	26	6	4
\$ 3,000 - 6,999	32	42	32	17
\$ 7,000 - 11,999	33	25	39	39
\$12,000 and over	21	8	23	40

Table 4

Percent of the Sample in Sex, Age,
and Education Categories, by Income

	Total Sample	Income			
		Under \$3,000	\$3,000- 6,999	\$7,000- 11,999	\$12,000 and Over
<u>Sex</u>					
Male	47	37	44	52	51
Female	53	63	56	48	49
<u>Age</u>					
Under 30	26	13	27	29	29
30 - 39	18	6	17	23	19
40 - 49	20	11	17	21	27
50 - 64	22	24	23	21	20
65 and over	15	47	17	6	5
<u>Education</u>					
Less than high school	41	77	54	30	15
High school	32	14	31	37	35
Beyond high school	27	9	14	32	51

Thus, when both age and education or income are related to a practice, both relationships may not be fundamental. It could be that advancing age, for example, increases the susceptibility to a practice, and that an education difference appears merely because of the association between age and education.

These relationships should be kept in mind during the chapters to follow. Where it seemed acceptable to do so, attempts were made to distinguish between fundamental relationships and those occurring through the process described above.

Chapter Two: VITAMIN PILLS, TONICS, AND NUTRITION SUPPLEMENTS

Even a casual observer of the American scene would be impressed with the evidence of public concern about nutrition and health. Books and magazine articles on the topic abound, as do advertisements for vitamin and mineral supplement preparations, and the specific nutritional qualities of food products are actively promoted.

Nutrition authorities agree, however, that much of the concern about nutrition is based upon misinformation and misconceptions about the nutritional adequacy and wholesomeness of the food supply, the incidence of nutritional deficiency, and the benefits to be expected from diet supplementation.

Beliefs about Nutrition and Supplementation

Respondents were asked to judge the truth of a series of statements. The statements, and the percentages who judged them to be true, are shown in Table 5.

Nearly three-fourths of the sample agreed that feeling tired and run down indicates a probable need for more vitamins and minerals, although the consensus of qualified medical opinion is that fatigue is seldom due to deficiencies in these nutrients, especially in the absence of other, more dramatic, symptoms. One-fifth of the sample believed that even such diseases as arthritis and cancer are caused, at least in part, by vitamin or mineral deficiencies, again in contradiction to scientific findings and opinion.

Nutritional scientists generally hold that balanced meals

Table 5

Percent Agreeing with Statements about Nutrition
and Supplementation, by Education and Income

	<u>Total</u>	<u>Less Than High School</u>	<u>High School</u>	<u>Col- lege</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000 \$11,999</u>	<u>\$12,000 and Over</u>
Anyone in this country who eats balanced meals can get enough vitamins in his regular food	86	84	89	85	83	82	87	88
If people feel tired and run down they probably need more vitamins and minerals	71	77	72	60	74	77	67	65
Older people need about the same amount of vitamins as young adults	33	39	30	27	38	35	30	28
People who eat a variety of available foods every day can get all the vitamins and minerals they need	71	73	74	66	73	71	71	71
Many diseases, even arthritis and cancer, are partly caused by a lack of vitamins and minerals	21	24	20	16	25	23	19	16
People can protect their health if they take more vitamins than they normally need	10	13	9	7	17	11	7	9

from the variety of foods that are readily available provide ample vitamins and minerals, in the absence of any related pathology. While large proportions of the sample agreed with the two statements in the table that reflect this view, the number who did not agree was substantial--over one-fourth of the population, it appears, is not sure that eating a variety of available foods will supply all the vitamins and minerals they need, and 14 percent of the sample was not sure that eating "balanced meals" would provide enough vitamins. There appear to be many people who do not understand the meaning of "balanced meals", or how to achieve them without resorting to dietary supplementation.

There is some potential inconsistency in simultaneously believing, as many respondents did, that feeling tired and run down is a sign of vitamin or mineral need, and that eating a variety of available foods supplies sufficient vitamins and minerals. To reconcile these positions it is necessary to believe either that feeling tired and run down is quite rare, or that many people are not eating a sufficient variety of available foods. The depth interviews that were conducted suggest that the latter belief is the more likely explanation: many people who would agree with the statement in the table about eating a variety of available foods do not believe that the "normal diet" of a great many "average people" does, in fact, supply a sufficient balance of nutrition.

Ten percent of the sample believed that there are benefits to taking more vitamins than are normally needed. Again, however, since this figure represents about 10 percent of the American population, the absolute number of people with this misconception is impressive.

Finally, only one-third of the sample believed that older people have about the same vitamin and mineral needs as

young adults. The scientific consensus is that nutritional requirements do not increase with advancing age.

Table 5 shows that those with less education and lower incomes are more likely to believe that fatigue usually means more vitamins and minerals are needed, that even arthritis and cancer may be related to vitamin or mineral deficiency and that there are benefits in taking more vitamins and minerals than are normally needed. However, while the better educated and more affluent were more likely to reject these specific propositions, they were little, if any, more confident in the adequacy of normal balanced meals. Indeed, college graduates were the most likely to question that simply eating a variety of available foods would supply all needed vitamins and minerals. Similarly, more in the educated and affluent groups questioned the proposition that older people have about the same need for vitamins as young adults. It appears, therefore, that while increasing education and socioeconomic status may reduce some specific misconceptions about the role of vitamins and minerals, they do not reduce more general doubts about the nutritional adequacy of the normal American diet.

Responses of men and women to the statements under consideration were quite similar. An examination of the responses according to age revealed meaningfully large differences for only two of the statements. Older people were more likely than younger ones to believe that a variety of available foods provides sufficient vitamins and minerals (79 percent of those 65 and older versus 61 percent of those under 30). Interestingly, older people were more likely than younger ones to believe that age does not change nutritional requirements (42 percent of those over 65 versus 27 percent of those under 30). Thus, older people are, if anything, less likely to hold misconceptions about dietary adequacy and nutrient requirements, as measured by these statements.

Shown in Table 6 are a series of eight "benefits" of taking extra vitamins or minerals that were presented to the respondents for their judgment as to truth or falsity. Each of these supposed benefits is open to question. All of these statements are considered misleading in the context of the labeling of most dietary supplement products. All reflect "claims" widely used to promote sales of nutritional products which have been repeatedly and successfully challenged in misbranding cases in the Federal courts. Yet, notwithstanding their general absence from labels and comparative rarity in advertising, these are concepts that continue to be widely held by the public. Unless an actual deficiency in essential vitamins or minerals is present--a rare condition, according to most qualified scientific opinion--vitamin and mineral supplements produce no immediate benefits. While their use is commonly justified as a form of "insurance", the more specific and manifest the expected benefit, the more likely the expectation is to be erroneous.

The results in Table 6 show that majorities of the sample believe that taking extra vitamins and minerals is of value for providing pep and energy, preventing colds*, staying generally more healthy, staying healthy while reducing, and avoiding getting sick. The remaining "benefits" are endorsed by smaller proportions of the sample, which nevertheless represent large numbers of the American population. For example, the 4 percent who registered belief in vitamins and minerals for cancer would represent about 8 million adults.

*This interviewing took place prior to the recent publicity given to the theory that vitamin C in massive doses prevents colds.

Table 6
Percent Accepting Supposed Benefits
of Extra Vitamins and Minerals,
by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Older</u>
To give more pep and energy	75	73	76	76	79	78	74	66
To prevent colds	58	56	59	54	59	63	62	49
To prevent or treat arthritis	11	13	10	6	9	13	16	15
To keep feeling young	30	33	28	29	31	35	29	28
To prevent or treat cancer	4	5	3	4	4	4	5	4
To stay generally more healthy	78	78	79	82	80	82	76	68
To stay healthy while reducing	54	49	58	66	57	54	49	36
To keep from getting sick	57	59	56	60	58	63	55	48

The responses of men and women were generally similar. Older people are less likely than younger ones to believe in extra vitamins or minerals for providing pep and energy, for preventing colds (the middle-aged were more inclined to this belief than either the oldest or the youngest respondents), for feeling young, for staying generally more healthy, for staying healthy while reducing, and to avoid getting sick. For only one item--to prevent or treat arthritis--were there more older believers than younger ones.

Table 7 presents responses to the same questions according to education and family income. The differences generally are not large, suggesting that orientation to the benefits to be expected from taking extra vitamins and minerals is not closely related to socioeconomic status. There is some tendency for the last two items in the table, which are perhaps more general than specific, to be accepted more frequently by those of higher education and income.

Usage of Vitamin and Mineral Supplements

Table 8 presents information on the usage of vitamin and mineral supplements, presented as they were to the respondents, under three categories: vitamin pills, tonics for the blood, and other similar products, such as yeast tablets, liver extract, and mineral capsules.

As shown in Table 8, only 43 percent of the sample have never used any of these products. Vitamin pills were by far the most commonly used: 52 percent of the sample reported having used them at some time in their adult lives, and 22 percent were using them at the time of interview.

Women were more likely than men to be users of all of the

Table 7.

Percent Accepting Supposed Benefits
of Extra Vitamins and Minerals,
by Education and Income

	<u>Total</u>	<u>Less Than</u> <u>High School</u>	<u>High</u> <u>School</u>	<u>Col-</u> <u>lege</u>	<u>Under</u> <u>\$3,000</u>	<u>\$3,000-</u> <u>\$6,999</u>	<u>\$7,000-</u> <u>\$11,999</u>	<u>\$12,000</u> <u>and Over</u>
To give more pep and energy	75	75	77	73	72	78	76	71
To prevent colds	58	56	59	60	53	57	61	59
To prevent or treat arthritis	11	14	10	10	14	13	11	10
To keep feeling young	30	33	27	31	34	31	28	31
To prevent or treat cancer	4	5	4	4	4	5	4	5
To stay generally more healthy	78	76	79	81	73	80	80	78
To stay healthy while reducing	54	46	58	61	42	52	55	63
To keep from getting sick	57	55	58	60	55	55	57	63

Table 8

Percent Using Vitamin Pills and Related Products
by Sex and Age

<u>Vitamin Pills</u>	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Older</u>
Using now	22	19	25	24	20	22	20	27
Ever used	52	46	58	55	56	51	51	45
<u>"Tonics for the Blood"</u>								
Using now	4	3	4	3	3	3	3	7
Ever used	13	8	18	12	14	14	13	14
<u>Other Similar Products</u>								
Using now	1	1	2	1	2	2	1	2
Ever used	5	3	7	5	6	5	4	5
<u>Never Used Any</u>	43	52	36	42	40	45	44	48

product types. Since Chapter 1 showed that sex is very little related to other demographic characteristics, the sex difference is probably not merely an artifact of some more fundamental difference. There appears to be no consistent, meaningful relationship between usage of these products and age.

Table 9 presents the information on usage according to education and family income. Vitamin pill usage clearly increases with higher socioeconomic status. Tonics, on the other hand, show a decrease in usage with higher socioeconomic status. But since vitamin pill usage is so much more widespread, the result is that those with higher levels of education and income are considerably more likely to have used any of the products in these categories. The relationship between education and income, as noted in Chapter 1, makes it difficult to determine which is more fundamentally related to dietary supplement usage.

In an effort to understand further the characteristics of those who ever used nutritional supplements, many of their questionnaire responses were compared with those of the total sample.

The responses to the series of statements covering beliefs about nutrition and supplementation are shown in Table 10. On only three of the statements are the beliefs of users of these products very different from the beliefs of people in general: users were less likely to agree that eating balanced meals, and eating a variety of available foods, are sufficient in themselves for vitamin and mineral needs, and they were more likely to believe that feeling tired and run down is a sign of a need for more vitamins and minerals. In each case, a higher percentage of the users of tonics, and of other products, than of vitamin pill users, took the position that would be considered scientifically questionable.

Table 9
Percent Using Vitamin Pills and Related Products,
by Education and Income

	<u>Total</u>	<u>Less Than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
<u>Vitamin Pills</u>								
Using now	22	20	23	27	20	21	23	26
Ever used	52	43	55	63	45	48	56	61
<u>"Tonics for the Blood"</u>								
Using now	4	5	3	3	6	4	2	2
Ever used	13	15	13	11	15	16	12	10
<u>Other Similar Prod- ucts</u>								
Using now	1	1	1	2	2	2	1	2
Ever used	5	3	5	7	5	4	6	5
<u>Never Used Any</u>	43	51	42	34	48	46	41	37

Table 10

Percent Agreeing with Statements
about Nutrition and Supplementation,
by Product Usage

	<u>Total</u>	<u>Respondents who ever used:</u>		
		<u>Sample</u>	<u>Vitamins</u>	<u>Tonics</u>
Anyone in this country who eats balanced meals can get enough vitamins in his regular food	86	81	77	69
If people feel tired and run down they probably need more vitamins and minerals	71	74	81	77
Older people need about the same amount of vitamins as young adults	33	32	35	29
People who eat a variety of available foods every day can get all the vitamins and minerals they need	71	67	62	64
Many diseases, even arthritis and cancer, are partly caused by a lack of vitamins and minerals	21	21	25	26
People can protect their health if they take more vitamins than they normally need	10	11	11	10

Table 10, and Table 11, as well, compare users of the products with the total sample, since the aim is to identify the ways in which nutritional supplement users differ from the total population. Since the users, are, themselves, a part of the total sample, the differences that are shown in these tables are smaller than would be the case if users were compared with non-users. The change would be especially great if vitamin pill users were compared with non-users, since slightly over half of the total sample had used vitamin pills. In fact, if vitamin pill users and non-users were compared, the difference would be about twice as great as when vitamin pill users are compared with the total sample. For example, for the first statement in Table 10, 81 percent of the vitamin pill users agreed, as compared to 86 percent of the total sample, a difference of five percentage points. The percentage for vitamin pill non-users would be about 91 percent. The changes would be much smaller in the case of tonic and other product non-users, since users of these products make up a relatively small part of the total sample.

The percentages of the users of the nutritional supplements who accepted as true various purported benefits of taking extra vitamins and minerals are shown in Table 11. As would be expected, the users were more likely than the total sample to accept as true most of the purported benefits in the list.

Attitudinal and Demographic Correlates of Usage

Although many demographic and attitudinal variables were examined, vitamin users appear to be quite similar to the general population in most respects. Apart from sex and socioeconomic status, already examined, the only additional difference worthy of note is the greater tendency of vitamin users to worry about their health: only 54 percent

Table 11

Percent Accepting as True Supposed Benefits
of Extra Vitamins and Minerals,
by Product Usage

	<u>Total</u> <u>Sample</u>	<u>Respondents who ever used:</u>		
		<u>Vitamins</u>	<u>Tonics</u>	<u>Other</u> <u>Products</u>
More pep and energy	75	81	87	84
Prevent colds	58	65	63	71
Prevent or treat arthritis	11	10	12	18
Keep feeling young	30	31	35	43
Prevent or treat cancer	4	3	6	4
Be generally more healthy	78	88	89	93
Stay healthy while reducing	54	58	59	63
Keep from getting sick	57	65	66	70

said they "hardly ever" worry, as compared to 60 percent of the total sample, and 66 percent of non-users. This tendency was even greater for tonic users, only 47 percent of whom said they hardly ever worry.

Perhaps related is the fact that, while 20 percent of the total sample reported they had at some time changed doctors because they were dissatisfied, 24 percent of vitamin pill users and 29 percent of tonic users so reported.

With tonic use, however, some other noteworthy differences were obtained. While 36 percent of the total sample grew up in the South, 47 percent of tonic users did so, and only 19 percent of them grew up in the Northeast, as compared to 27 percent of the total sample.

There was a slight tendency for tonic users to be less urban: 19 percent live on a farm or otherwise in the country, as compared to 14 percent of the total sample, 9 percent live in a large city suburb, as compared to 15 percent of the total sample.

Susceptibility to certain types of advertising was measured in all respondents interviewed. Responses of tonic users, but not vitamin pill users, showed a higher degree of susceptibility than the total sample: 23 percent agreed that the claim that a medicine helped many conditions and diseases instead of just one would increase their faith in the medicine, as compared to 19 percent of the total sample. If a famous person testified that he was helped by the medicine, 30 percent of the tonic users and 23 percent of the total sample said their faith would be increased. If many ordinary people testified they were helped, 51 percent of the tonic users and 41 percent of the total sample agreed this would increase their faith.

Finally, respondents were asked to choose between two statements: "Good health is a natural thing" and "A person has to work at it constantly to have good health". While 58 percent of the sample chose the second statement, 65 percent of the tonic users did so. Again, vitamin pill users were not distinguished by this item.

Sources of Influence on Usage

All users of any of the nutritional supplements were shown a list of health practitioners and asked which ones advised or told them to take the products they had used. In another, separate question, all users were shown a list of other possible influences on them and asked which ones had had anything to do with their usage. The results of these two questions are shown in Table 12.

For all three product categories, over half of the users reported that a physician had advised them to use the product. Very small numbers cited the other practitioners, so that about 30 to 40 percent said they had not received advice from anyone who gives a health service.

The depth interviewing in preliminary phases of this study indicated that in some cases where someone reports that a physician advised him to do something, what actually happened was that the patient himself first broached the idea to the physician, and the physician's "advice" was nothing more than to say it was all right, no harm would be done by following the practice.

For this reason, each person who said a health practitioner advised him to use a nutritional supplement was asked

Table 12

Percent of Users of Nutritional Supplements Citing
Various Sources of Influence on Their Usage

	<u>Vitamins</u> %	<u>Tonics for the Blood</u> %	<u>Related Products</u> %
<u>Health service cited</u>	58	69	68
Medical doctor	53	64	60
Pharmacist	3	1	4
Nurse	2	1	1
Chiropractor	1	1	2
Osteopath	1	2	2
Other	1	1	1
No one who gives a health service	42	31	32
<u>Other than health service cited</u>	45	39	40
Relatives	19	10	17
TV or radio commercials	14	21	5
Friends	11	6	8
Newspaper/magazine advertising	4	4	7
Magazine articles	4	1	3
Medical columns in newspapers/magazines	3	2	1
Store displays	3	1	4
Books	2	x	4
Other (salesmen, etc.)	2	1	-
None of the above	55	61	60

x Means less than 1%

whether it was he or the physician who first brought it up. In the case of advice from physicians, 14 percent of the vitamin pill users involved, 7 percent of tonic users, and 12 percent of other product users reported that they themselves, rather than the physicians, first brought up the subject. If these people were removed from Table 12, leaving only those respondents for whom the physician originated the advice, the percentages would be about 45 percent for vitamin pills, 60 percent for tonics, and 53 percent for other products. Thus, this procedure would change little whatever conclusions are to be drawn from Table 12.

As shown in the bottom part of Table 12, over half of the respondents indicated they were not influenced by any of the non-health service sources that were mentioned to them. The question was undoubtedly a difficult one, since many people may be reluctant to admit that they are influenced by some sources, and may be unaware of subtle influences or pressures that operate over a considerable time span. While this possibility calls into question the absolute values of the percentages reported, the relative ranking of some of the sources is probably quite meaningful. Word-of-mouth influence is clearly very important. Of the other sources, the influence of broadcast advertising was impressive.

Sources of influence in taking nutritional supplements was highly related to the sex of the respondent. The more meaningful comparisons are shown in Table 13.

Women were far more likely than men to cite a physician as having advised them to use the nutritional supplement. Male users, on the other hand, much more often said they were not advised by anyone who gives a health service. The male users were much more likely than the female

Table 13

Percent of Users of Nutritional Supplements Citing
Various Sources of Influence on Their Usage
by Sex

	<u>Males</u>			<u>Females</u>		
	<u>Vita-</u> <u>mins</u> %	<u>Tonics</u> <u>for the</u> <u>Blood</u> %	<u>Related</u> <u>Products</u> %	<u>Vita-</u> <u>mins</u> %	<u>Tonics</u> <u>for the</u> <u>Blood</u> %	<u>Related</u> <u>Products</u> %
<u>Health service cited</u>	43	36	46	69	81	77
Medical doctor	36	32	42	65	77	68
No one who gives a health service	57	64	54	31	19	23
<u>Sources other than health service cited</u>	53	66	59	39	28	33
Relatives	24	17	21	15	8	16
TV or radio commer- cials	17	41	9	11	12	4
Friends	12	9	10	10	4	7

users to report having been influenced by sources other than health practitioners. Of particular interest is the high percentage (41 percent) of male users of "tonics for the blood" who said that TV or radio commercials had something to do with their use of the product.

Reasons for Usage

Each user of any of the types of products under consideration was asked, in an open-ended question, his reasons for usage. The most commonly given reasons are shown in Table 14. (Since the question was open-ended, it reveals what the respondents themselves said were their reasons. Thus, for example, only 21 percent said they had used vitamin pills because a doctor had prescribed or advised them, while Table 12 showed that 53 percent responded to a direct question by citing a physician's recommendation or prescription. All this means is that some people who proceeded on a physician's recommendation did not mention it in the open-end question, and described their problem or symptoms instead.) Since many people gave more than one response, the percentages sum to over 100.

It is noteworthy that in this open-ended situation, where respondents could say anything, the most commonly offered reason for taking nutritional supplements was to obtain extra energy, and that making oneself feel better was the second most common reason.

A second approach was also used to elicit information on the benefits expected from nutritional supplements. All respondents had judged the truth or falsity of a list of purported benefits (results shown in Table 6). Users of any of the products under consideration were

Table 14

Percent of All Users Giving Various Reasons
for Nutritional Supplement Use

	<u>Vitamin Pills</u>	<u>Tonics</u>	<u>Other Products</u>
Extra energy	30	21	24
Make self feel better	25	20	20
Doctor's recommendation or prescrip- tion	21	17	15
Supplement diet, restore food value lost in processing	20	15	16
Treat a specific physical condition (other than colds, arthritis, and cancer)	19	13	15
Prevent colds	10	3	6
Build blood, restore iron deficiency	7	10	10

presented again with the items they had judged as true, and were asked whether they had, in fact, used the products because of these things. The results of this question are shown in Table 15.

It appears that large majorities of the users of these products were seeking to be generally more healthy and to have more pep and energy. In both cases, the less educated and lower income respondents were somewhat more likely than those of higher socioeconomic status to expect these benefits.

Differences on this question according to sex and age of the users were relatively small, and are therefore not reported here.

One of the more important issues in understanding the motivation to use nutritional supplements is whether the users expect the products to make a noticeable difference in the way they feel, or whether they use them merely as a form of inexpensive "insurance" against the possibility of some deficiency in their diet.

The users of these products were asked directly if they expected to feel better as a result of their use. The results are shown in Tables 16 and 17.

Very large majorities did expect the products to make them feel better. Women, older people, the less educated, and lower income people were especially likely to have this expectation.

Another aspect of this issue was covered by asking users

Table 15

Percent of All Users* Checking Off Various Reasons
for Nutritional Supplement Product Class Use,
by Education and Income

	<u>Total</u>	<u>Less Than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
More pep and energy	64	72	68	52	67	73	61	57
Prevent colds	36	34	40	35	37	33	35	44
Prevent or treat arthritis	3	5	3	2	9	3	2	3
Stay feeling young	11	15	6	11	15	13	8	10
Prevent or treat cancer	+	1	-	+	2	1	+	-
Be generally more healthy	75	77	76	71	82	78	72	70
Stay healthy while reducing	16	15	15	19	14	17	13	23
Keep from getting sick	44	44	42	46	46	47	41	45

* Users of the three types of products are grouped.

+ Less than 1%.

Table 16

Percent of All Users Who Expected
Nutritional Supplements to Make Them Feel Better,
by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under</u> <u>30</u>	<u>30-</u> <u>39</u>	<u>40-</u> <u>49</u>	<u>50-</u> <u>64</u>	<u>65 and</u> <u>Older</u>
Vitamin pills	73	70	76	66	71	73	80	82
Tonics	88	81	91	86	81	92	90	94
Other products	85	74	90	83	92	87	77	88

Table 17
Percent of All Users Who Expected
Nutritional Supplements to Make Them Feel Better,
by Education and Income

	<u>Total</u>	<u>Less Than</u>		<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>		<u>\$3,000-\$6,999</u>		<u>\$7,000-\$11,999</u>		<u>\$12,000 and Over</u>
		<u>High School</u>	<u>High School</u>			<u>\$3,000</u>	<u>\$6,999</u>	<u>\$7,000</u>	<u>\$11,999</u>			
Vitamin pills	73	84	74	61	86	82	70	61				
Tonics	88	91	87	83	92	91	86	86				
Other products	85	88	87	82	76	96	83	79				

of the products to report whether they were convinced they would be helped by the products, or whether they just took them to be safe. The results are shown in Tables 18 and 19.

Depending upon the type of product, from one-half to three-fourths of the users reported they were convinced they would be helped. The same pattern as was noted above is present: it is women, older people, the less educated, and lower income people who are particularly likely to be convinced these products will help them, as opposed to taking them merely to be safe.

In summary, it appears that very large numbers of nutritional supplement users have very high expectations of benefits, probably much more than qualified scientific opinion supports.

Questionable Use of Nutritional Supplements

The use of nutritional supplements varies from cases where it is justified to cases where the user is almost certainly proceeding under a misconception about either his need for the supplementation or the benefits he can expect from it. Examples of the former are infants, pregnant women, women with a high blood loss during menstruation, and persons convalescing from debilitating illnesses whose physicians have prescribed nutritional supplementation. At the other extreme, there are people who have decided on their own to use vitamin pills to treat their arthritis, or to overcome fatigue. Obviously, many uses of nutritional supplements can fall in between these extremes.

To examine questionable use of nutritional supplementation,

Table 18

Percent of All Users Who Were Convinced
Nutritional Supplements Would Help Them*,
by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under</u> <u>30</u>	<u>30-</u> <u>39</u>	<u>40-</u> <u>49</u>	<u>50-</u> <u>64</u>	<u>65 and</u> <u>Older</u>
Vitamin pills	49	44	53	45	46	50	50	59
Tonics	69	58	73	60	64	76	72	72
Other products	73	62	77	62	79	83	78	67

*Remainder are those who "just took them to be safe".

Table 19

Percent of All Users Who Were Convinced
Nutritional Supplements Would Help Them*,
by Education and Income

	<u>Total</u>	<u>Less Than</u> <u>High School</u>	<u>High</u> <u>School</u>	<u>College</u>	<u>Under</u> <u>\$3,000</u>	<u>\$3,000-</u> <u>\$6,999</u>	<u>\$7,000-</u> <u>\$11,999</u>	<u>\$12,000</u> <u>and Over</u>
Vitamin pills	49	61	42	43	61	57	46	38
Tonics	69	76	67	56	86	70	67	55
Other products	73	75	75	68	67	72	67	86

*Remainder are those who "just took them to be safe".

definitions, which are inevitably arbitrary to some extent, are necessary. The definition used in the tabulations which follow has several elements, but basically it means that the use is not based on professional advice or any valid health reasons.

First, the use by anyone who reported that his use of nutritional supplements was based upon the advice of a physician was classified as legitimate, regardless of what else he reported--even, for example, if he reported using vitamin pills to reduce arthritis pain. To label the behavior involved in following a physician's advice as questionable, even when the respondent almost certainly misunderstands the benefits of vitamins, would run counter to accepted principles of proper health care. It is impossible, in a survey such as this, to interpret respondents' reports of advice from physicians.

As was shown in Table 12, slightly over half of the use of nutritional supplements was classified as legitimate on the basis of the reporting of a physician's advice.

Among those users remaining, the reasons for use, or the benefits expected, were the basis for judgments as to presumed legitimacy of use. Consulting several items in the questionnaire, use by persons who said they used the supplement expecting to feel better, or for some specific condition or benefit, was classified as questionable. Some of these individuals expected benefits that, according to qualified medical opinion are, in themselves, open to serious question: fewer colds, feeling more energetic, etc. Others had expectations in areas where supplements are known to be of value, such as correcting iron or calcium deficiencies, but where laymen are unable to determine their own need and prescribe for themselves.

Those who did not offer any specific expectations of benefit must be assumed to be proceeding under no misconceptions, and their use was presumed legitimate. Included here were those who gave such reasons as supplementing their diet and maintaining health when on a reducing diet. Also included were those users who simply said their reason was the advice of a relative, for example.

Following these procedures in interpreting the reasons given and benefits expected, the result was that most of the use by those who did not have a physician's advice was classified as questionable. It must be emphasized, however, that very large numbers of even those users who cited a physician's advice had expectations of benefit that would have been classified as questionable had a physician not been involved. The result of the decision that no use of nutritional supplements would be classified as questionable if a physician's advice were cited is that the comparison of questionable with presumed legitimate use is, to a considerable degree, not very different from a comparison of users with and without a physician's advice.

Of reported use of vitamin pills, 44 percent was classified as questionable, as was 38 percent of the tonic use and 43 percent of the use of other products in this category. These figures represent, respectively, 23 percent, 5 percent and 2 percent of the total sample. Combining the product categories, the use of 26 percent of the total sample was classified as questionable for of one or another of the types of supplements.

Because of the arbitrary nature of the definitions used, and the obvious difficulties in working with respondents' reports of their motives, the finding that about one-fourth

of the sample had no sound reason for use of nutritional supplements must be regarded as a rather gross estimate. It does, however, provide some indication of the order of magnitude of this particular problem.

Comparison of questionable vitamin pill use with presumed legitimate use revealed only a few important differences. The major demographic difference is in regard to sex: 55 percent of the questionable use and 30 percent of the legitimate use was by males. Thus, while it was established earlier that women were more likely to have used vitamin pills, their use is more likely to be classified as legitimate, primarily because of their greater tendency to cite a physician's advice, perhaps because of menstruation and pregnancy. Individuals whose use was questionable were generally younger: 9 percent of the questionable use, and 16 percent of the legitimate use, was by those 65 or older.

Since a physician's recommendation was such an important factor in the definition of legitimate use, it is not surprising that it was longer since questionable users had seen a doctor: 74 percent of the legitimate users, and 56 percent of the questionable users, had seen a doctor within the past six months.

The respondents were presented with a description of a hypothetical situation, in which they were asked to suppose that they had some health problem, that a "friend" who had the same problem bought a medicine that he said helped, but that the respondent's doctor said the medicine was worthless; 16 percent of the questionable users and only 9 percent of the legitimate users said they would probably try the medicine anyhow.

In a similar question, 42 percent of those reporting questionable

use and 34 percent of those with legitimate use said that if they bought a medicine that seemed to help some health problem, only to find later that their doctor considered it worthless but harmless, they would go on using it.

Those classified as making questionable use of vitamin pills had a definitely greater tendency to rely on self-medication. All respondents were asked how long they would go on with self treatment of sore throat, cough, acid stomach, headaches, and skin rash before seeing a doctor, assuming that the medicine was controlling the condition as long as they kept taking it. For each disorder, the questionable users of vitamin pills tended to name longer periods of time. The percentages in the case of a cough are typical: 35 percent of questionable users and 47 percent of legitimate users said they would see a doctor in three days or less.

It appears that the chief distinguishing characteristic of persons whose use of vitamin pills is questionable is their somewhat greater general tendency to self medication. None of the attitudinal material examined suggests that this tendency to do so is derived from any deeper psychological orientations.

Persons reporting questionable and legitimate use were scarcely different at all in the beliefs about the needs and benefits of nutritional supplementation (items that were shown in Tables 5 and 6).

The pattern that appeared where users of "tonics for the blood" were examined is somewhat different from that for vitamin pills. As with use of vitamin pills, questionable use of tonics was more often by males: 51 percent of the

questionable users were male, versus 14 percent of those whose use was legitimate. But the age difference in vitamin pill use did not occur for tonics. There is an income difference in the case of tonics: 33 percent of the legitimate use and only 18 percent of the questionable use was by persons who had incomes of \$10,000 or more. There was, however, no difference with respect to education.

Fifty-three percent of the questionable use of tonics was reported by those who grew up in the South, as compared to 44 percent of the legitimate use. (This pattern of difference is reversed in the case of vitamin pills: 29 percent of questionable use and 36 percent of legitimate use was by persons who grew up in the South. Southerners are more likely to choose tonics when they decide on a self-administered nutritional supplement, while people in other regions are more likely to choose vitamin pills.)

Questionable tonic users seemed to be less skeptical about medicine advertising claims than those classified as legitimate users. Testimonials from many ordinary people that a medicine helped them would increase the faith of 65 percent of the former as compared to 43 percent of the latter. The claim that a medicine offers not just relief but a permanent cure would increase the faith of 44 percent of the questionable users and 32 percent of legitimate users. For the availability of a doctor's diagnosis by mail the corresponding percentages were 7 percent and 3 percent, respectively, and for the claim that the medicine is brand new the percentages are 16 percent and 8 percent.

Questionable tonic use is more characteristic of a general tendency to self-medication than legitimate use. When asked how long they would go on treating themselves for various problems before seeing a doctor (this item was described above, for vitamin pills), the percentages of

legitimate tonic users who would continue three days or less before seeking medical advice were five to 10 points higher than for questionable users (e.g., for acid stomach, 43 percent versus 50 percent).

In the hypothetical situation of a friend's advice conflicting with a doctor's (item described above) 24 percent of the questionable users and 9 percent of the legitimate users would follow the lead of the friend. Forty-two percent who reported questionable use and 35 percent who reported legitimate use of tonics would continue using a medicine that seemed to be helping them even if their doctor said it was worthless for their condition.

Finally, individuals whose use was questionable were more critical of the medical profession in some ways. Seventy-three percent of them versus 58 percent of those making legitimate use agreed that "There are a lot of old-fashioned remedies around that the doctors do not pay enough attention to". For "The medical profession concentrates too much on science and not enough on people", the percentages agreeing were 56 percent and 46 percent, respectively. For "Despite all the scientific advances, doctors used to help their patients more than they do now", 51 percent and 36 percent. For "Medical doctors stick too much to the 'tried and true'; they are too much against new or different ways", 29 percent and 19 percent.

Satisfaction with the Products

The users of nutritional supplements were asked if the products did for them what they had hoped. Sixty-two percent of vitamin pill users, 76 percent of tonic users, and 76 percent of other product users, said that they did.

For vitamin pills, questionable and legitimate use were compared: 50 percent and 71 percent, respectively, said the vitamin pills did for them what they had hoped.

The users were asked a series of three questions that, taken together, produce a classification of expectation related to satisfaction. First, they were asked if they expected the product to make them feel better: 73 percent of the vitamin pill users, 88 percent of the tonic users, and 85 percent of the other product users said they did have this expectation. (These results were examined earlier, in Tables 16 and 17).

Second, they were asked whether they were convinced they would be helped, or just took the products to be safe: 49 percent of vitamin pill users, 69 percent of tonic users, and 73 percent of other product users, said they were convinced they would be helped.

Third, they were asked whether the product did what they had hoped, with the results presented above.

Table 20 presents the classification that was derived from these three questions. By far the largest category is composed of those users who had the highest expectations and reported satisfaction of them. Second in size is the group that used the product more as a precaution than out of conviction that they would be helped but hoped that they would feel better, and were satisfied that the product did what they expected.

Viewed another way, of those users who had the highest expectations (expected to feel better, convinced would be

Table 20

Percent of All Nutritional Supplement Users,
Categorized by Expectation and Satisfaction

<u>Expected to feel better, used with conviction</u>	<u>Vitamin Pills</u>	<u>Tonics</u>	<u>Other Products</u>
Satisfied with results	36	56	55
Dissatisfied with results	4	4	5
Not sure	5	5	6
<u>Expected to feel better, used as precaution</u>			
Satisfied with results	14	15	12
Dissatisfied with results	8	4	2
Not sure	7	3	4
<u>Did not expect to feel better (used with conviction or as precaution)</u>			
Satisfied with results	11	4	7
Dissatisfied with results	4	3	3
Not sure	10	4	3
All other responses	1	2	2

helped), over 80 percent in each product category reported that the product did for them what they expected it to do.

It must be made explicit that these results can have no bearing upon the question of whether or not nutritional supplements can, in fact, make people feel better. In the first place, the testimony of "patients" has no scientific validity (except, of course, as an indication of their subjective feelings and opinions, which are the issue in this study). In the second place, the existence of the well-known "placebo effect" causes many people to believe they are better even if they are given sugar pills, if they are in any way allowed to believe the pills could be "real".

Respondent Views of Medical Opinion

Two questions were asked of the respondents who said they had used nutritional supplements for some specific reasons: first, whether or not they believed that "Most doctors and health authorities think that is a useful thing to do", and second, whether they would have tried it even if they had known that most doctors and health authorities thought it was not of any value.

The results from these questions are shown in Table 21. Very large proportions of those who used nutritional supplements for the benefits shown believed that most doctors and health authorities thought that was a useful thing to do. But over a third of those in each benefit-category would have tried the products even if they had known that most doctors and health authorities thought they were of no value for the purpose indicated.

Table 21

Percent of Users of Nutritional Supplements for
Specific Benefits Who Believe Medical Opinion
Supports Them, and Percent Who Would Have
Used Even If They Knew
Medical Opinion Contradicted Them

	<u>Believe Medical Opin- ion Supported Use</u>	<u>Would Have Used Despite Contrary Medical Opinion</u>
Used for extra energy	91	36
Used to prevent colds	92	36
Used to prevent or treat arthritis	68	47
Used to stay feeling young	80	40
Used to feel better	93	36

In understanding the appeal of vitamin pills, the possible semantic effect of the word itself should not be overlooked. Had some less evocative and more technical word been chosen for this group of nutrients, the lay public might have a different perspective. As it is, the semantic association with "vitality" may help account for the wide belief that extra vitamins provide pep and energy.

Chapter Three: FOOD, NUTRITION, AND "HEALTH FOOD"

Concern about the nutritional quality of the American food supply and diet is realistic and desirable, on the part of the individual consumer who seeks sound nutrition, the researcher or scholar who seeks to understand nutritional requirements and the state of the population's nutrition, and those responsible for setting and enforcing standards of food quality.

Like many other concerns, this one can be overdone. Concern about nutrition, if it is based upon misconception or faulty understanding, can lead to needless anxiety, or needless expense in buying special products for their presumed nutritional benefits.

In its extreme form, over-concern with nutrition can lead to mistaken beliefs that virtually all health problems have a nutritional origin and that various diets, or particular foods, have therapeutic properties which they do not possess. Such beliefs go far beyond the scientific facts which show, for example, that certain vitamins are specific for scurvy, rickets, beri-beri and pellagra.

Belief in foods as nostrums dates from prehistoric times. Today an extensive popular pseudo-scientific literature continues to encourage self-treatment through foods and diet for conditions which should have medical diagnosis and treatment. Such literature may be found in many so-called health food stores--advocating even such extreme practices as a "grape cure" for cancer, alfalfa tea for arthritis, and honey and vinegar as a tonic good for everything.

Such beliefs are supported by a variety of false concepts concerning the nation's food supply. These common misconceptions include the beliefs that depleted or worn out soil, alleged to be characteristic of much crop land, produces food of poor nutritional quality; that man-made vitamins are inferior to naturally occurring ones; that the use of chemical fertilizers results in less healthful food; and that modern food processing and handling result in foods that are nearly or utterly valueless for nutrition. Each of these propositions has been used in the promotion of a great variety of foods and nutritional products said to correct such claimed deficiencies in the normal food supply. Such beliefs are considered false or, at least, open to very serious question, by nutrition scientists. None of them has been substantiated by scientific evidence. All have been extensively used to promote sales of products found to be misbranded in court proceedings under the Federal Food, Drug and Cosmetic Act.

Beliefs about Food Supply Healthfulness

Beliefs such as those above were investigated by presenting a series of statements to the respondents and asking them to judge the truth of each statement. The statements and the percentages judging them to be true are shown in Table 22.

While the statements are all concerned with beliefs about food healthfulness, they differ in the degree to which they are related to proven misconceptions. The second, fifth and last statements in the table are all held to be true by qualified scientific opinion. There is less certainty about the other statements. Qualified opinion would hold them to be more false than true when they are applied

Table 22

Percent Agreeing with Statements
about Food Supply Healthfulness,
by Sex and Age

	<u>Total Sample</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
1. The chemicals added to our manufactured food take away much of its value for health	48	46	49	49	43	49	53	42
2. Man-made vitamins are just as good as natural vitamins	35	36	33	40	41	38	29	22
3. Much of our food has been so processed and refined that it has lost its value for health	60	59	61	57	54	60	64	67
4. Chemical sprays that farmers use make our food a danger to health, even if they are used carefully	57	59	57	48	56	62	62	63
5. There is no difference in food value between food grown in poor, worn out soil and food grown in rich soil	15	15	14	14	17	12	16	13
6. Many foods lose a lot of their value for health because they are shipped so far and stored so long	73	74	73	71	68	74	77	78
7. Food grown with chemical fertilizers is just as healthful as food grown with natural fertilizers	44	46	43	54	52	43	37	29

sweepingly to the bulk of the American food supply, and the wording of the statements does tend in this direction. On the other hand, individual instances where chemical contamination has affected food healthfulness have occurred recently, and there is no doubt that processing tends to reduce nutritional values of certain foods.

In evaluating the material presented in this section of the report, the time at which these interviews were conducted should be kept clearly in mind: summer, 1969. Since that time there have been a number of widely publicized incidents and issues involving food contaminants, suspect food additives, and the nutritional quality of processed food (e.g., mercury in fish, the DDT issue, and cyclamates). Because of this publicity, public concern with these issues may well have increased since the data to be reported were collected.

From Table 22 it is clear that half or more of the sample are conditioned to doubt the healthfulness of food grown or processed with "modern methods". Acceptance of the "soil depletion myth"* is particularly strong, and so is predisposition to doubt the efficacy of man-made vitamins, which, by extension, could mean doubt about the value of fortified foods (i.e., foods with nutrients added). Less than half of the respondents believed that chemical fertilizers produce food as healthful as do natural fertilizers.

*Scientific research has shown that crop yield is greatly affected by soil conditions, while nutritional content is not significantly affected. Production is concentrated in areas where soil conditions are most suitable. Trace mineral content of food may be affected by soil conditions but vitamin and caloric values are little changed. The net result is insignificant in the total diet of humans.

Beliefs in this area are not related to sex, but doubts about the healthfulness of the food supply tend to increase with age. The relationship was strongest for the two statements where the word "natural" was used, once in opposition to "man-made vitamins" and once in opposition to "chemical fertilizers".

Table 23 shows responses to the same questions according to education and income of the respondents, and demonstrates that doubts about the healthfulness of the food supply and the value of "modern methods" were more prevalent among the less educated and lower income respondents.

Any doubt about food healthfulness would be no small concern to most people. In a separate question, all respondents were asked to express their agreement or disagreement with the statement "For most people who have bad health, a major reason is they don't eat right". Thirty-six percent of the sample agreed "very much" with this statement, and another 39 percent agreed "a little", leaving only 25 percent who disagreed. (In many of the depth interviews conducted in this study, respondents seemed to reveal a way of thinking that led to a direct equation between diet and any health problem.) Education and income are both involved: 40 percent of those with less than a high school education and 28 percent of those with at least some college agreed "very much"; 41 percent of those with incomes under \$3,000 and 29 percent of those with incomes of \$12,000 or more agreed "very much".

Relationship between Beliefs and Practices

While doubts about the healthfulness of the food supply were common, action based upon those doubts was much less

Table 23

Percent Agreeing with Statements about Food Supply Healthfulness,
by Education and Income

	<u>Total</u>	<u>Less Than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
1. The chemicals added to our manufactured food take away much of its value for health	48	52	50	37	50	50	48	42
2. Man-made vitamins are just as good as natural vitamins	35	26	35	47	22	32	34	48
3. Much of our food has been so processed and refined that it has lost its value for health	60	65	58	56	66	63	59	54
4. Chemical sprays that farmers use make our food a danger to health, even if they are used carefully	57	63	55	52	63	58	57	54
5. There is no difference in food value between food grown in poor, worn out soil and food grown in rich soil	15	17	14	12	15	16	14	14
6. Many foods lose a lot of their value for health because they are shipped so far and stored so long	73	77	74	68	76	77	73	69
7. Food grown with chemical fertilizers is just as healthful as food grown with natural fertilizers	44	34	47	56	27	41	47	55

51

common. Seven percent of the sample said there was some particular food they had eaten because of their beliefs about the statements in Tables 22 and 23, and 8 percent said there was some particular food they had avoided because of their beliefs. Of the statements in the tables, the one most often cited as a reason for eating some particular food referred to food so processed and refined that health value was lost; the most common reason cited, from among the statements, for avoiding some food referred to chemical sprays used by farmers.

"Health Food" Usage

The beliefs that are covered in the statements in Tables 22 and 23 are frequently offered by proponents of special "health foods"* as reasons for using their products. Usage of such products was investigated with the question "Have you ever eaten food advertised or labeled as 'organic' or 'natural' food, like health food stores sell?" Those who said "yes" were further asked if they had eaten these "special health foods" more than five times, as an effort to eliminate those who had only tasted the food once or twice, perhaps merely out of curiosity. Again, it should be pointed out that these data were collected in 1969, prior to an upsurge in health food popularity.

The incidence of "organic" or "natural" food usage is

*The term "health foods" is, in a sense, a misnomer, since the foods so called are no more healthful than other wholesome foods. There are no legal or scientific definitions of "health food", "organic food", or "natural food".

shown in Table 24. It is noteworthy that, while doubts about the healthfulness of the regular food supply seemed to decrease with increasing education and income (shown in Table 23), use of health food increased with increasing education and income, as shown in Table 24. One potential explanation, that the beliefs investigated in Table 23 are unrelated to health food usage, can be rejected: it will be demonstrated later that those who use health food are, in fact, more likely to subscribe to the beliefs under investigation. The most likely explanation for the difference between Tables 23 and 24 is that while those of higher education and income less often have the kind of beliefs that call for health food usage, their higher incomes make use more feasible.

Men and women were virtually identical with regard to use of health foods, and age differences were neither very large nor very consistent. In other words, people in all age categories tended to use these foods to about the same extent.

Among those who had used a special food more than five times, 43 percent said their pattern of usage was 30 meals a month or more, 45 percent said less than 15 meals a month, and 13 percent said 15 to 29 meals a month. During the past five years, 34 percent of the users said they had eaten the special food fewer than six months, 10 percent said 6 to 11 months, 13 percent said 12 to 23 months, 11 percent said 24-35 months, 6 percent said 36-59 months, and 26 percent said 60 months.

Thus, it appears that those persons who might be called heavy users of the products were a sizable minority of all those who had used the products five or more times.

Table 24

Percent Who Have Eaten "Organic" or "Natural" Food,
by Education and Income

	<u>Total</u>	<u>Less Than</u>	<u>High</u>	<u>Under</u>	<u>\$3,000-</u>	<u>\$7,000-</u>	<u>\$12,000</u>
	<u>Total</u>	<u>High School</u>	<u>School</u>	<u>\$3,000</u>	<u>\$6,999</u>	<u>\$11,999</u>	<u>and Over</u>
			<u>College</u>				
Ever eaten	10	6	10	15	5	8	9
Eaten more than five times	5	3	5	7	3	5	5
							15
							7

Of all those who had used a special food more than five times, 43 percent said they were using it at the time of interview, and another 32 percent said their last usage was less than a year ago. Ten percent had used it the last time between one and five years ago, and 15 percent said their last use was more than 15 years ago. Thus, at the time of this interviewing (late summer, 1969), about 2 percent of the sample was currently using a special health food.

Sources of Influence on Usage

When shown a list of health practitioners and asked which, if any, advised use of a health food, 80 percent of those who had used it more than five times said they had been advised by no one who gives a health service, 8 percent cited a medical doctor, 4 percent a chiropractor, 3 percent an osteopath, and 5 percent some other source. (The number of persons involved is too small for differences according to such variables as age or income to be reliable.)

The users of these foods were shown another list, of non-professional sources of influence, and were asked which ones had anything to do with their use of the special health food. The results are shown in Table 25.

The advice of friends and relatives seems to be the major influence, followed by magazine articles, print advertising, and books. Differences with regard to these sources of influence according to sex, age, education were not large enough to be meaningful or reliable, especially in view of the very small number of persons involved.

Table 25

Percent of Users of Health Food
More Than Five Times
Citing Various Sources of Influence

Friends	34
Relatives	25
Magazine articles	11
Newspaper or magazine advertising	10
Books	9
Store displays	8
TV or radio commercials	6
Medical columns	5
Lectures	2
Mail advertising	1
Salesmen	-
None of the above	20

Reasons for Usage

The results of an open-end question, "Why did you start eating this special food"? are shown in Table 26.

In addition to this open-end question, respondents were asked specifically how strongly they believed in the value of this special food, by asking them to choose between "You strongly believed you would be helped" and "You just thought it was worth a try". The results are shown in Tables 27 and 28.

Over half of the users more than five times were acting out of some conviction they would be helped. The older the user the more likely he was to be committed in this way.

It was shown earlier in Table 24, that more educated and affluent respondents were somewhat more likely to have used special health foods. Table 28 shows, however, that affluent and educated users were less likely than other users to be acting out of a sense of strong conviction that the food would help them. There is another finding that is consistent with this one: in the open-end question, 21 percent of the users who had attended college, 12 percent of the high school graduates, and 6 percent of those with less than a high school education offered as a reason for their use liking the taste or just enjoying the special food. Similarly, 14 percent of the college attenders, 27 percent of the high school graduates, and 6 percent of those with less than a high school education said they ate the food to be socially agreeable, without any conviction that it is especially good for them. (The number of persons involved is so small that these percentages, by themselves, would not be very reliable. In conjunction with Table 28, however, they seem meaningful.)

Table 26

Percent of Users More Than Five Times
Giving Various Reasons for Special Health Food Use

For better health, general well-being	32
More nutritious than other food	17
More vitamins than other food	5
Influenced by friends or relatives (respondent convinced it is good)	15
Read or heard about its value	11
Avoid chemicals added in growing or production	10
Restore food value lost in manufacturing	2
Are to be socially agreeable (respondent not convinced it is good)	16
Like the taste, just enjoy it	14
Physician's recommendation	3
Serves as a laxative	3
Other than above	10

Table 27

Percent of Users More Than Five Times Who
Strongly Believed Special Health Food Would Help Them,
by Age and Sex

<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Older</u>
58	59	57	48	52	55	63	73

Table 28

Percent of Users More Than Five Times Who
Strongly Believed Special Health Food Would Help Them,
by Education and Income

<u>Less Than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
75	54	49	63	74	47	54

Classifying Health Food Usage

For some people, such as diabetics and cardiac patients on low sodium diets, some of the special dietary foods now available are unquestionably important. Beyond this, judgments about whether or not health food users are engaging in a questionable practice are difficult and somewhat arbitrary. Presumably, someone who pays high prices for "organically grown" produce because he finds it tastes better is not being victimized in any way, but suppose he only imagines the difference and could not, in fact, identify organically grown produce in a test situation? While anyone who is attempting self-treatment of disease or pathology with health food is practically certain to be misled, it is sometimes difficult to distinguish these cases from those in which the user is simply seeking "high nutrition" (whatever that is) without making judgments about what specific benefits may result. In the middle are those people who would not expect health food to help with any specific health problem they might have, but do expect it to improve their general health or well-being.

Thus, in this survey a completely precise classification of health food users according to the rationality of their use is not feasible. However, three groups were singled out for analysis and comparison with one another and with the total sample: all users more than five times, users without a recommendation from a medical doctor or osteopath, and users who strongly believed the food would help them (as opposed to those who just thought it was something to try).

As indicated earlier, 5 percent of the total sample had used health food more than five times. Of these, 89 percent (about

4 percent of the total sample) did not cite a medical doctor or osteopath as having advised them to do so as was shown in Table 27, and 58 percent of the users, or about 3 percent of the total sample, were acting out of some conviction that they would experience health benefits.

Correlates of Health Food Usage

Table 29 shows the demographic characteristics that tend to differentiate health food users from the total sample. Health food users have somewhat higher incomes than the total sample. They also have more education, although there is a considerable difference here between users in general and the sub-group that strongly believed in health foods: those in the sub-group had less education than users in general, but still had more than the total sample.

There is some tendency for health food users to be older than the total sample; the difference is largest in the case of the strongly committed users.

Geographic origins are especially interesting. The health food users reported growing up in the West much more often than the total sample. Fewer had Southern origins. The percentages for other regions of the country were about the same.

The relationship with race is potentially interesting. While the percentage of committed users who were black is about the same as in the total sample, blacks are underrepresented among the total users. In fact, every one of the black health food users fell into the committed

Table 29

Percent of the Total Sample and
of Classified Health Food Users,
by Selected Demographic Characteristics

	<u>Total</u> <u>Sample</u>	<u>Total Users</u> <u>More Than</u> <u>Five Times</u>	<u>Used</u> <u>Without</u> <u>M.D. or D.O.</u> <u>Advice</u>	<u>Convinced</u> <u>Users</u>
Male	47	44	46	46
Negro	14	7	7	13
Age 65 or older	15	15	16	19
Age 50 or older	37	42	43	48
Less than high school educa- tion	40	26	27	33
Income under \$3,000	14	8	9	9
Income \$12,000 and over	21	30	29	28
Grew up in the West	8	16	16	18
Grew up in the South	36	25	25	25

user category. It must be remembered, however, that the number of persons in the unweighted sample on which these percentages are based is very small: there were only eight or nine black health food users in this part of the total sample.

Finally, health food usage did not seem to be related to the sex of the respondent.

Table 30 shows the responses of the groups under examination to the statements about food supply healthfulness that were shown earlier in Table 22. On every one of these statements the health food users were more likely than the total sample to question the healthfulness of the normal food supply and processing methods, and the committed or convinced users were the most likely of all to hold these beliefs.

Table 31 shows the responses of these groups to another set of statements, those concerning nutrition and nutritional supplementation. Rather large differences between the total sample and health food users, especially the convinced users, occur on several of the statements.

It seems clear from Tables 30 and 31 that health food users are distinguished to some extent by their beliefs about vitamins, minerals, food production and processing, and health. This is significant when it is remembered that vitamin pill and nutritional supplement users were not distinguished in any meaningful way by their beliefs in this area.

There is a significant relationship between health food

Table 30

Percent of Total Sample and of Classified Health Food Users
Agreeing with Statements about Food Supply Healthfulness

	<u>Total Sample</u>	<u>Total Users More Than Five Times</u>	<u>Used Without M.D. or D.O. Advice</u>	<u>Convinced Users</u>
The chemicals added to our manufactured food take away much of its value for health	48	72	74	86
Man-made vitamins are just as good as natural vitamins	35	25	25	15
Much of our food has been so processed and refined that it has lost its value for health	60	78	80	89
Chemical sprays that farmers use make our food a danger to health, even if they are used carefully	57	78	79	88
There is no difference in food value between food grown in poor, worn out soil and food grown in rich soil	15	7	7	7
Many foods lose a lot of their value for health because they are shipped so far and stored so long	73	81	83	86
Food grown with chemical fertilizers is just as healthful as food grown with natural fertilizers	44	32	33	23

Table 31

Percent of Total Sample and of Classified Health Food Users
Agreeing with Statements about Nutrition and Supplementation

	<u>Total Sample</u>	<u>Total Users More Than Five Times</u>	<u>Used Without M.D. or D.O. Advice</u>	<u>Convinced Users</u>
Anyone in this country who eats balanced meals can get enough vitamins in his regular food	86	72	74	58
If people feel tired and run down they probably need more vitamins or minerals	71	75	74	75
Older people need about the same amount of vitamins as young adults	33	24	22	27
People who eat a variety of available foods every day can get all the vitamins and minerals they need	71	69	70	58
Many diseases, even arthritis and cancer, are partly caused by a lack of vitamins and minerals	21	33	32	37
People can protect their health if they take more vitamins than they normally need	10	15	16	23

usage and worry or concern about one's health. While 45 percent of the total sample said that their health was much better or a little better than most people their age, 58 percent of health food users and 68 percent of committed users so reported. However, 60 percent of the total sample said they "hardly ever" worry about their health, while only 54 percent of health food users and 49 percent of committed users so reported. Similarly, while 9 percent of the total sample said they worry about their health either a lot more or a little more than other people their age, 14 percent of health food users and 16 percent of committed users so reported. Thus, people who use health food reported more concern than average about their health, and they also claimed better health than the average. (Obviously, these findings deal only with the respondents' self-characterizations, and contribute no information on the objective reality of the respondents' health condition.)

The health food users' tendency to be concerned about their health may be related to another finding: while 20 percent of the total sample reported they had ever changed doctors because of dissatisfaction, 31 percent of the health food users (26 percent of the committed users) reported having done so.

All respondents were exposed to a list of things they might find out about a doctor they were considering using, and asked whether each one would give them more, or less, confidence in the doctor. Most of the things on the list are practices that legitimate physicians do not engage in: advertising, money-back guarantees, statements by the physician that he is the only one who can help the patient, and claims of secret or special treatments that no one else has. In only one instance was there a relationship to health food use: 16 percent of the committed health food users said they would have more confidence in

a doctor who had a diploma on the wall that said "Doctor of Health Scientology", as compared to 9 percent of the total sample and 9 percent of all health food users. ("Health Scientology" was used as an illustrative example of a made-up degree, rather than to indicate a particular group or movement.)

In the next question, respondents were asked if they had ever gone to a practitioner who followed some of these practices. While 1 percent of the total sample said they had gone to someone who advertised his services, 6 percent of health food users said they had. While less than 1 percent of the total sample said they had gone to a practitioner who offered a money-back guarantee, about 2 percent of health food users said they had.

While the numbers of respondents involved in these percentages are very small, it does appear that there is a tendency for health food users to be more than normally attracted to unorthodox health practitioners.

All respondents were shown a list of things that might appear in medicine labels or advertising, and asked what effect they would have on their faith in the medicine. If a famous person testified that he was helped, it would give 23 percent of the total sample more faith in the medicine as compared to 27 percent of all health food users and 32 percent of committed users. "Many ordinary people" testifying they were helped would increase the faith of 41 percent of the total sample, 51 percent of all health food users, and 59 percent of committed users. The other items-- claims of helping many conditions instead of just one, a quotation from a doctor that the medicine is good, claims of curing instead of simply relieving a problem, the availability of a doctor's diagnosis by mail, and the claim that the medicine is

brand new--showed no meaningful differences among the groups, so that health food users, and committed users in particular, were distinguished primarily by their seemingly greater susceptibility to testimonials.

In an item that was described in more detail earlier in this report, 18 percent of all health food users and 20 percent of committed users said they would try a medicine that a friend with the same problem said had helped him, even if their doctor said it was worthless. In comparison, 12 percent of the total sample so reported. Similarly, 48 percent of health food users, 47 percent of committed users, and 36 percent of the total sample said they would go on using a medicine that seemed to make them feel better even if their doctor said it was worthless but harmless.

Respondents were shown a list of five ailments--sore throat, cough, acid stomach, headaches, and skin rash. They were asked to assume for each one that they had found a medicine that controlled it as long as they continued taking the medicine, and were asked how long they would wait before seeing a doctor. Table 32 shows the percentages who said they would wait three days or less, which is where the largest differences occurred.

While the total group of health food users seemed a little more prone to practice self-medication than the total sample, the differences within the health food users are larger. Those health food users who were convinced that the food would be of benefit to them were somewhat less prone than the total sample to self-medication, while the remaining health food users--those who said they used health food just because it was something to try--were considerably more prone than the total sample to self-medication.

Table 32

Percent Who Would See a Doctor
within Three Days for Various Conditions,
by Health Food Use Classification

	<u>Total Sample</u>	<u>Total Health Food Users</u>	<u>Committed Health Food Users</u>	<u>Uncommitted Health Food Users</u>
Sore throat	46	42	50	31
Cough	41	36	45	24
Acid stomach	49	41	54	26
Headaches	55	50	58	41
Skin rash	52	46	58	32

There is an interpretation that fits these results. It was shown earlier that the committed health food users seems to have a greater-than-average concern with his health, as compared with the total group of health food users. Although the data were not presented, the uncommitted health food users--those who just thought it was something to try--were scarcely different at all from the total sample with regard to concern or preoccupation with their health. Thus, if committed users are people with concern about their health it might be expected that they would see a doctor almost immediately upon showing any symptoms of disorder. If uncommitted users, on the other hand, are people who have "dabbled" with health food, it might be expected that they would dabble with self-medication as well.

When presented with a pair of propositions, "Good or bad health primarily results from the body we are born with", and "How we take care of ourselves is more important than the body we are born with", and asked to choose between the, the second statement was chosen by 83 percent of the total sample, 88 percent of all health food users, and 89 percent of committed users. A larger difference was obtained with another pair of statements "Good health is a natural thing", and "A person has to work at it constantly to have good health": the second statement was chosen by 58 percent of the total sample, 68 percent of all health food users, and 69 percent of committed users.

Table 33 shows the responses on some opinion items where meaningful differences were registered. The percentages who agreed "very much" and the percentages who agree at all ("very much" plus "a little") are shown. A number of the items deal with various attitudes toward the medical profession; the committed users were more critical here, but the total group of users was not very different from

Table 33

Percent Agreeing with Selected Opinion Items,
by Health Food Usage Classification

	<u>Total Sample</u>		<u>Total Users</u>		<u>Committed Users</u>	
	<u>Agree "Very Much"</u>	<u>Agree At All*</u>	<u>Agree "Very Much"</u>	<u>Agree At All*</u>	<u>Agree "Very Much"</u>	<u>Agree At All*</u>
For most people who have bad health, a major reason is they don't eat right	36	74	47	79	56	86
If a medicine doesn't help you right away, it probably isn't going to do any good at all	11	30	6	17	10	18
A lot of doctors are only interested in making money	23	61	25	60	33	67
There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	24	62	25	62	34	64
The medical profession concentrates too much on science and not enough on people	15	45	17	46	23	59
Despite all the scientific advances, doctors used to help their patients more than they do now	16	39	18	39	28	44
Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	5	22	9	21	12	22
Community water supplies should be fluoridated	46	78	44	67	38	64
The law should require that children must be vaccinated or innoculated against contagious diseases	80	95	79	91	75	86

*Total who agreed "Very much" and agreed "A little".

the total sample. More health food users than members of the total sample were opposed to water fluoridation and compulsory inoculation. In fact, 22 percent of the committed users, 18 percent of all users, and only 8 percent of the total sample disagreed "very much" with the fluoridation statement; the percentages disagreeing very much with the inoculation statement were 9 percent, 5 percent and 2 percent, respectively.

The questionnaire included a self-administered "personality test" that derived from previous research that suggested relationships between certain personality characteristics and susceptibility to health fallacies. Items were borrowed or adopted from this earlier research for inclusion in the present study. Six very short personality "scales" were thus included; the number of items in each scale ranged from three to eight. The items and the scales are shown as an appendix to this report.

The percentages of the groups of interest with scale scores in the high range and low range are shown in Table 34. The derivation of the scores and the statistical definitions of the high and low range are described in the appendix. Basically, the larger the percentage in the high score range and the lower the percentage in the low score range, the greater is the presence of the "trait" for a particular group. Thus, a comparison of the health food users groups with the total sample indicates whether or not health food users tend to be different from people in general in this "trait".

Table 34 shows that the committed and the uncommitted health food users are rather different from one another. It may be that people who use health food out of a strong belief that it will benefit them have a different personal orientation from those who merely see it as something to try.

Table 34

Percent with Average Item Scores in the
High and Low Range for Six "Personality" Traits
by Health Food Usage Classification

	<u>Total Sample</u>	<u>Total Users</u>	<u>Committed Users</u>	<u>Uncommitted Users</u>
<u>Purposelessness</u>				
High score range	60	67	64	72
Low score range	4	3	5	0
<u>Anomia</u>				
High score range	19	17	28	4
Low score range	30	32	25	41
<u>Fatalistic Thinking</u>				
High score range	23	16	20	10
Low score range	27	42	33	54
<u>Belief in Intervention by God</u>				
High score range	69	62	69	52
Low score range	6	13	7	20
<u>Pessimism</u>				
High score range	5	5	2	10
Low score range	39	55	58	51
<u>Insecurity</u>				
High score range	5	1	1	2
Low score range	45	57	62	51

The committed users differ from the total sample primarily in their lower scores on Pessimism and Insecurity. The Pessimism trait is easily understood, as the scale consists of such items as "It is only natural to be fearful of the future". High scores on Insecurity would indicate a feeling that things very often go wrong for the respondent, through no fault of his own.

The uncommitted users show more differences from the total sample. They scored higher on Purposelessness and Anomia, both of which indicate a view of the world as offering little support for individuals: people are on their own, with little help or comfort to be expected from other people, living from day to day just for themselves, at a loss for genuine goals in life. However, they scored lower than the total sample on Pessimism. An examination of the items indicates that a subtle distinction may account for this pattern. The Anomia and Purposelessness items seem to reflect a view of the way the world is, while the Pessimism items are more concerned with the way an individual should act and feel. Thus, it is possible to believe that the world is full of unhappy people on their own, and also to believe that a person should be cheerful and ready to see the bright side of things. It may be this pattern that distinguishes the uncommitted health food user from the total population.

The uncommitted user scored lower than the total sample on Fatalistic Thinking (e.g., "Nothing comes to pass but what fate wills") and belief in intervention by God in the affairs of the world (e.g., "Every human problem can be solved and every hunger satisfied and every promise can be fulfilled if God so wills.")

Taking these findings together, a theory can be advanced as to the personal orientation that may predispose a person to dabble with health food (be an uncommitted user).

If one believes that he is on his own in a somewhat unfriendly world, responsible for his own fate with no help to be expected from either his fellows or from God, he may well be inclined to try anything, including health food, that holds out the promise that his own actions can benefit him.

The status of the committed health food user, on the other hand, seems more determined by his specific beliefs about food, the food supply, and health, as was shown earlier, so that the only "personality" orientation involved is his general optimism, which could very well lead him to estimate highly the benefits he believes he receives.

At any rate, the interpretation above seems to be consistent with the pattern of findings that has been disclosed.

Chapter Four: WEIGHT CONTROL

Beliefs about Weight Reduction

Beliefs about weight control methods were investigated by presenting the respondents with a series of statements and asking them to judge the truth of each one. The statements, and the percentages who judged them to be true, are shown in Table 35.

The sixth statement in the list reflects the advice usually given by responsible authorities in medicine and physiology. While 78 percent of the sample agreed with the statement, a large number of people either rejected it or said they were not sure of its truth.

Furthermore, 78 percent may overstate the number of people who have a realistic view of weight control methods, since the second, third and fifth statements in the list were endorsed by 46 percent, 38 percent and 40 percent respectively, and the factual accuracy of these statements is at least questionable when viewed against the opinions of qualified authorities in this field. It may be fair to say, therefore, that somewhere between one-fourth and one-half of the sample, and hence the American population, held at least one questionable belief in the area of weight control.

As shown in the table, men were slightly more likely than women to hold to most of the questionable beliefs; the difference was greatest for the second statement, dealing with weight reduction by sweating.

There is a tendency for persons of lower education to be more likely to endorse certain of the questionable statements.

Table 35

Percent Agreeing with Statements about
Weight Reduction, by Sex and Education

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Less Than High School</u>	<u>High School</u>	<u>Col- lege</u>
1. People can reduce their weight substantially by massage	19	20	18	22	19	15
2. People can reduce their weight substantially by a lot of sweating	46	56	37	47	47	43
3. People can reduce their weight substantially by taking special products available without a prescription to control their appetite	38	40	37	38	36	41
4. People who want to reduce should eat more fats and less sugar and starches than they usually eat	19	20	17	21	19	15
5. People can reduce their weight substantially by staying on their regular food and using artificial sweeteners instead of sugar, or drinking only diet soft drinks	41	42	41	46	41	35
6. The only way to reduce weight substantially is to eat less food than the body will use up	78	74	82	81	75	78
7. People who want to lose weight should keep up with the latest diets published in magazines	11	12	10	13	10	9
8. Diets wouldn't be published unless they had been tested and proven to work	28	26	29	31	28	23

Although not shown in the table, the responses according to age and income were also examined. The most impressive age difference occurred on the sixth statement, which expresses the view of qualified medical and scientific authority. Only 65 percent of respondents under age 30 endorsed this statement, rising to 87 percent of those aged 50 or over. Despite this difference, younger people were only slightly, if at all, more likely to endorse the statements dealing with specific questionable beliefs.

The income comparison showed a pattern similar to that for education, with respondents in the highest income bracket examined, \$12,000 and over, showing a lesser tendency to endorse some of the questionable statements. As with the education comparison, however, there was no difference large enough to be meaningful in the case of the sixth statement.

Concern about Weight

Each respondent was asked if he had ever been concerned with reducing his weight, and if not, if he had ever been concerned with "keeping from gaining weight". The results of these questions are shown in Table 36.

Weight control has been a concern of about half the sample. The concern is particularly common among women, and among persons with higher incomes. Though not shown in the table, differences according to education were parallel to those for income, but not quite as great. The only striking difference according to age involves those 65 and older, only 28 percent of whom reported ever being concerned with reducing. In the younger age categories the percentages ranged from 42 to 47 percent.

Tables 37 and 38 show the percentages of the total sample, broken out by various demographic sub-groups, who reported having been on a reducing diet anytime in the past five years,

Table 36

Percent Who Were Ever Concerned with Reducing Weight
or Avoiding Weight Gain, by Sex and Income

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
Ever concerned with reducing	42	30	52	31	40	42	53
Ever concerned with avoiding gain	7	7	8	8	7	8	7

Table 37

Percent on Reducing Diets, by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30-39</u>	<u>40-49</u>	<u>50-64</u>	<u>65 and Over</u>
Reducing diet in past three years	24	16	31	30	27	26	22	11
Reducing diet "now"	10	5	14	10	9	12	12	6

Table 38

Percent on Reducing Diets, by Education and Income

	<u>Less Than High School</u>	<u>High School</u>	<u>Col-lege</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
Reducing diet in past three years	17	26	33	15	20	25	35
Reducing diet "now"	9	9	13	8	8	10	15

and being on a reducing diet at the time of the interview. Women and younger respondents were more likely to have been on a diet recently, and the tendency to diet increases with education, and with income.

Weight Reduction Practices

Those respondents who said they had ever been concerned with reducing, or avoiding weight gain (See Table 36), were shown a list of practices sometimes engaged in by those trying to lose weight. The practices, and the percentages of those who have tried to control their weight who reported having tried them, are shown in Tables 39 and 40.

Three of the items in the list, appetite depressants, "meal replacements", and something to cause sweating, were reported tried by relatively large numbers of persons who were concerned about their weight, and show some differences according to demographics. Weight-concerned women were more likely than weight-concerned men to have tried meal replacements and appetite depressants, while men were more likely to have tried something to cause sweating. Older weight-concerned persons were less likely than younger ones to have tried any of the three. Increasing education and income were accompanied by increased usage of meal replacements and something to cause sweating, but not appetite depressants, which were relatively unrelated to these factors.

Meal Replacements

As shown in Table 39, 17 percent of all those persons who were concerned about their weight reported having used the liquid diets or other things that take the place of a whole meal. This corresponds to 8 percent of the total sample.

Table 39

Percent of Those Concerned with Weight Who
Have Tried Various Things, by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
Liquid diets or things that take the place of a whole meal	17	10	21	24	18	18	11	8
Medicine or a special preparation to help control your appetite	26	16	32	26	30	30	28	11
Medicine or a special preparation to get rid of weight with- out your changing what you ate	3	3	3	3	3	3	2	3
Mechanical or elec- trical massager or vibrator	4	3	5	4	3	5	4	2
A machine that ex- ercised you without any effort, like an electric bicycle	2	2	3	4	2	1	2	1
Anything to make you sweat to lose weight	7	12	4	14	5	6	2	1
None of these things	58	67	54	46	56	58	63	82

Table 40

Percent of Those Concerned with Weight Who Have
Tried Various Things, by Education and Income

	<u>Less Than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
Liquid diets or things that take the place of a whole meal	11	15	25	11	16	16	22
Medicine or a special prep- aration to help control your appetite	28	31	19	23	29	28	23
Medicine or a special prep- aration to get rid of weight without your changing what you ate	2	4	2	3	4	4	1
Mechanical or electrical massager or vibrator	3	5	4	3	3	4	5
A machine that exercised you without any effort, like an electric bicycle	2	2	3	1	1	3	3
Anything to make you sweat to lose weight	4	7	9	5	4	6	11
None of these things	64	55	56	67	60	58	52

Of all those who had ever tried the meal replacements, 12 percent were using them at the time of the interview (1 percent of the total sample), and another 35 percent had last used them less than one year earlier. Of all who ever used them, 73 percent reported that their pattern of usage was "every day or nearly every day".

All respondents who had used these products were asked, "How does using the liquid diets or meal replacements help to control your weight?" The results of this open-end question are shown in Table 41.

An exact interpretation of Table 41 is difficult since the responses could indicate that respondents interpreted the question in different ways: some of them used the occasion to evaluate the products, while others reported their understanding of how the product was supposed to work. Thus, for example, some of the 10 percent who said that the products do not curb their appetite may have thought, at the time they tried the products, that they were actually supposed to depress the appetite, as with medication. Similarly, some of the 20 percent who reported the products do not control weight or produce a weight loss may simply have been reporting their understanding that the products do not contain any medication or special ingredients, while others may have been reporting their disappointment in a product that they had previously thought worked directly to cause a weight loss.

It does appear, however, that only a minority, and probably a small minority, of the users of these products can be said to have a misunderstanding of the products' mode of action.

The users of the meal replacements were asked whether they "strongly believed" the products would help in weight control, or they "just thought they were worth a try". Sixty-eight percent chose the latter expression.

Table 41

Percent of Users of Meal Replacements
Giving Various Responses to Question
on How It Helps Them

Controls calorie intake	39
Curbs or satisfies appetite	36
Provides a balanced meal or diet	10
High protein content burns fat, produces weight loss	3
Contains an appetite depressant	+
Does not control weight or produce weight loss	20
Does not curb appetite	10
Doesn't agree with me	3
Don't like the taste or consistency	3

+ Less than one percent

Appetite depressants

Table 39 showed that 26 percent of weight-concerned respondents -- 13 percent of the total sample -- reported having tried appetite depressants. These products were being used at the time of interview by 19 percent of those who had ever used them.

Eighty-two percent of those who had used these products reported they were recommended by a medical doctor, and 4 percent cited an osteopath. Two percent cited other persons giving a health service, primarily pharmacists. Fourteen percent said the products had been recommended by "no one who gives a health service". (Percentages sum to over 100 because of multiple response.)

Fifteen percent of the users of appetite depressants reported the recommendation of neither a medical doctor nor an osteopath. These users of non-prescription products in this category represent about 2 percent of the total sample, and about 4 percent of all those respondents who said they had ever been concerned about their weight.

Those who did not cite a medical doctor or osteopath's recommendation were asked whether they "strongly believed" the product would help them, or whether they "just thought it was worth a try". Sixty-seven percent chose the latter alternative.

A list of "non-medical" sources of influence was presented to all users of appetite depressants, containing such items as advertisements, books, articles, and salesmen. Seventy-three percent of the users said none of the items in the list "had anything to do with" their use. "Friends" were cited

by 11 percent, and "relatives" by 8 percent. Print advertisements were cited by 6 percent, broadcast commercials by 5 percent, magazine articles by 5 percent, and the remaining items in the list were cited by 2 percent or less.

All users of appetite depressants were asked if the product used did control their appetite, and 81 percent said that it did. The percentage for the non-prescription users alone was not so high: 71 percent said it controlled their appetite. Evidently, the subjective perception of these products by their users is that they are successful.

Other weight control medication

Table 39 showed that 3 percent of weight-concerned respondents reported having used "Medicine or a special preparation to get rid of weight without your changing what you ate". Of these respondents, 74 percent said a medical doctor had recommended the product, 4 percent cited a pharmacist, and 21 percent said "No one who gives a health service" had recommended the product.

Twenty-six percent of the users of these products reported a recommendation by neither a medical doctor nor an osteopath. These respondents were asked if they "really believed" the product would help, or "Just thought it was worth a try", and 64 percent chose the latter alternative. (The number of respondents on which this percentage is based is too small for reliability, and the percentages must be interpreted very broadly.)

"Non-medical" sources of influence were denied by 76 percent of the users of these products. Print advertising was cited as having influenced them by 6 percent, friends by 5 percent, relatives by 5 percent, store displays by 4 percent, mail advertising by 3 percent, and other sources by less than 2 percent each.

All users were asked if the product caused them to lose "more than a few pounds", and 62 percent said it did. The "non-prescription" users were scarcely different (although their number is too small for reliable interpretation of exact percentages): 64 percent said they lost more than a few pounds.

However, 85 percent of those who said they lost more than a few pounds also said they later gained back the lost weight.

Massagers or vibrators

Table 39 showed that 4 percent of the weight-concerned respondents had used a massager or vibrator in their weight control efforts. However, only 33 percent of these respondents reported that they, or someone in their families, purchased the devices. Thus, about 1 percent of the weight-concerned respondents had purchased (including others in their families) a massager or vibrator.

Of all those who had used a massager or vibrator, 31 percent thought it was "just worth a try" (as opposed to 69 percent "really believing" it would help).

Twenty-seven percent of all users, and 36 percent of the purchasers, said they lost "more than a few pounds", but 82 percent and 68 percent of these, respectively, said they later gained back the weight lost.

Effortless exercising machines

Table 39 showed that 2 percent of the weight-concerned respondents had used "A machine that exercised you without any effort, like an electric bicycle". Thirty-six percent of

these respondents -- 1 percent or less of all weight-concerned respondents -- reported that they, or someone in their families, had purchased the device.

Forty-nine percent of all users, and 52 percent of purchasers, really believed the device would help them.

Twenty-two percent of all users, and 21 percent of purchasers said they lost "more than a few pounds". However, 70 percent of all such users said they later gained back this weight. (The number of purchasers who lost "more than a few pounds" is too small for any further percentaging.)

Weight loss by sweating

Table 39 showed that 7 percent of the weight-concerned respondents had tried something "to make you sweat". Of these, 30 percent said it was a steam bath, sauna bath, or the like, 19 percent said it was special clothing, and 58 percent said it was something other than these.

Seventy-one percent of those who had tried something to cause sweating "really believed" it would help them (as opposed to 29 percent thinking it was just "worth a try").

Fifty-six percent of the users said that they lost "more than a few pounds". However, 74 percent of these said they later gained back this weight.

Reducing diets

Table 37 showed that 24 percent of the total sample (50 percent of the weight-concerned respondents) had been on a reducing diet during the past three years. Approximately one-third of

these people were trying to lose 10 pounds or less, one-third were trying to lose 11 to 20 pounds, and one-third were trying to lose over 20 pounds.

Fifty percent of those who had gone on a reducing diet in the past three years had done so "more than once" during that period, most typically, two or three times.

Twenty-one percent of those who had ever been concerned with controlling their weight, corresponding to about 10 percent of the total sample, were on a reducing diet at the time of the interview.

Forty-nine percent of those who had been on a reducing diet during the past three years reported that a medical doctor had advised them to do so. Forty-five percent of all dieters reported that a medical doctor had recommended a diet for them to follow.

There is an interesting relationship between income and use of a diet recommended by a medical doctor. Among all respondents who reported having gone on a reducing diet in the past three years, 61 percent of those with incomes under \$3,000 and 33 percent of those with incomes of \$12,000 or more said a medical doctor had recommended a diet for them. However, this difference is present only when the focus is narrowly upon just those people who have dieted. Among all weight-concerned respondents, for example, 23 percent of the low income and 20 percent of the high income respondents received a diet from a doctor. Using the total sample as the base, the percentages are 9 and 12, respectively.

In other words, high income people were more likely to be weight concerned, and more likely to have dieted recently, but, among dieters alone, were less likely to have received a diet

from a medical doctor. This pattern would be consistent with the interpretation that lower income people are more often concerned about their weight only through medical reasons, while higher income people are concerned for other reasons, as well. Since this income pattern also exists for education, it may also mean that people with higher incomes and education feel more confident in their knowledge, and less likely to believe they need a physician's help in setting up a diet.

Classification of Weight Reduction Practices

The weight reduction practices that were discussed in the preceding section differ in the degree to which they can be regarded as legitimate, or as questionable.

The use of liquid diets or meal replacements can be regarded as questionable only if the user has unrealistic expectations for what these products will do for him. Any respondent who indicated that the products work by directly "burning" or eliminating fat, or by an appetite depressant, could be considered a questionable user, but only about 4 percent of all users had responses indicating such beliefs. This represents well under 1 percent of the total sample, and not enough for any further separate analysis.

The use of appetite depressants can be fairly regarded as questionable only if the product was not recommended by a medical doctor or osteopath. About 15 percent of the users of these products indicated that they were not so recommended. This figure represents about 2 percent of the total sample.

It is true that some theoretically qualified medical doctors are sharply criticized for developing obesity-specialized practices and using irrational and dangerous medication strategies. However, a survey of laymen by lay interviewers

cannot distinguish these so-called "fat doctors" from more respectable physicians, so the assumption must be that practices recommended by a physician are probably legitimate.

About 26 percent of those who used "medicine or a special preparation to get rid of weight without your changing what you ate" said it was not recommended by a medical doctor or osteopath, but this represents less than a full 1 percent of the total sample, and is too small for separate analysis.

Any use of a massager or vibrator in the expectation of weight loss is questionable, in view of the opinions of qualified medical and scientific authority. About 2 percent of the sample had used such a product, and about 33 percent of the users of these products said they had purchased one, but this represents only about one-half of 1 percent of the total sample, and the number is too small for separate analysis.

Similarly, the use of an "effortless exerciser" is questionable, and is even more so when the device was purchased. About 1 percent of the sample had used such a product, and about 36 percent of these users said they had purchased the device. The latter group represents less than one-half of 1 percent of the total sample, and is too small for separate analysis.

It should be remembered that even one-fourth of 1 percent of the total sample represents about a third of a million Americans, so low percentages do not indicate in absolute terms that a problem is unimportant.

Trying to produce weight loss by sweating is an erroneous conception, in the opinion of qualified authority, since it confuses a very temporary water loss with a reduction in fat. About 3 percent of the total sample reported they had tried to reduce by using something to make them sweat.

The testimony of the respondents themselves does not support the effectiveness of these practices. Even among those users, usually a minority, who claimed a weight loss, most admitted they regained the weight.

The questionable practices discussed above were combined into a single category for further analysis; about 12 percent of all those who watch their weight, representing about 6 percent of the total sample, were classified in this questionable-user category. This group breaks down as follows: used anything to sweat -- 52 percent, appetite depressants not recommended by medical doctor or osteopath - 32 percent, bought a massager to reduce -- 10 percent, bought an "effortless exerciser" to reduce -- 7 percent, used medication, not recommended by a medical doctor or osteopath, supposed to eliminate fat directly -- 6 percent, used liquid diets or meal replacements believing they contain an appetite depressant or eliminate fat directly -- 4 percent. (Percentages sum to more than 100 percause some respondents followed more than one questionable practice.)

Correlates of Weight Concern

Before examining characteristics that may distinguish those respondents who followed some questionable weight control practice, it is appropriate to look first at any differences that may exist between the total sample and those respondents who were concerned about their weight.

It was shown earlier in Table 36, that weight concern was more common among women. In fact, while 47 percent of the total sample was male, only 35 percent of the weight-concerned respondents were male.

Table 36 also showed that weight concern was more common among respondents with higher incomes. In fact, while 42 percent of the total sample had incomes under \$5,000, only 34 percent of the weight-concerned respondents had incomes that low.

A similar pattern existed for education: 22 percent of the total sample, and 16 percent of the weight-concerned respondents, had an eighth grade education or less.

It was also shown earlier that weight concern is little related to age. The primary difference is that those who are 65 or older were less likely to report ever having been concerned with their weight, and less likely to have dieted recently.

Beyond these demographic differences, there was little to distinguish weight-concerned respondents from the total sample.

On the statements covering beliefs about weight reduction practices (as shown in Table 35), weight-concerned respondents were little different from the total sample. In fact, weight-concerned respondents were, if anything, more knowledgeable about the truth or falsity of those statements than were respondents who had not been concerned about their weight. For example, 84 percent of the respondents who had ever been concerned about their weight judged as true the statement that "The only way to reduce weight substantially is to eat less food than the body will use up", while 78 percent of the total sample judged this statement as true.

Since weight-concerned respondents were about one-half (49 percent) of the total sample, the difference between weight-concerned and non-weight-concerned respondents would be twice as great as between weight-concerned respondents and the total sample, indicating that about 72 percent of the non-weight-concerned respondents judged the statement as true. Differences on the other statements were smaller.

Weight-concerned respondents were practically undistinguishable from the total sample on the body of items -- described in earlier sections of this report -- dealing with such things as attitudes toward health, health practitioners, and self-medication.

Correlates of Questionable Practices

A "questionable user" category, consisting of about 12 percent of all weight-concerned respondents, was described above. The respondents in this category were compared with all other respondents who reported concern about their weight. The demographic differences that appeared are summarized in Table 42.

The followers of questionable practices, when compared with all other weight-concerned respondents, tend to be younger, to have higher incomes, and to have more education. They are more often males -- which comes about because the most common questionable practice in the classification is the use of something to induce sweating, which was shown earlier to be much more characteristic of men. Followers of questionable practices were more likely to have grown up in a suburb, and less likely to have grown up on a farm, although there is little difference in this respect with regard to current residence. Thus, following questionable weight reduction practices seems related to those characteristics commonly thought of as "sophistication": young, affluent, educated, and non-rural in origin.

There are some additional differences of note, and some areas that are interesting because of the absence of difference.

The respondents were exposed to a list of things they might find out about a doctor, and asked whether each one would give them more, or less, confidence in the doctor. Most of the things on the list are practices that are not engaged in by legitimate physicians: advertising, money-back guarantees, statements by the physician that only he could help the patient, and claims of secret or special treatments. As is shown elsewhere in this report, respondents with more education were especially likely to say these things would

Table 42

Percent of Those Following Questionable Weight
Reduction Practices and of All Others Concerned
about Weight, by Selected Demographic Characteristics

	<u>Total Sample</u>	<u>Followers of Questionable Practices</u>	<u>All Other Weight Concerned Respondents</u>
Male	47	46	34
Eighth grade education or less	22	6	16
Income over \$12,000	21	30	25
Age 34 or younger	35	56	33
Age 65 and over	16	4	13
Grew up on a farm	28	15	26
Grew up in a suburb	6	13	7

give them less confidence in the doctor. Yet, while followers of questionable weight control practices had more education than the remaining weight-concerned respondents, these two groups did not differ on the items in question.

On another, somewhat similar, item, respondents were shown a list of things that might appear in medicine advertising or labels and asked what effect they might have on their faith in the medicine: testimonials by a "famous person" and by "ordinary people", a claim of helping many conditions instead of just one, a claim of curing instead of just relieving a problem, the availability of a doctor's diagnosis by mail, and the claim that the medicine is brand new. In this case, even though more educated people generally were less likely to say these things would give them more faith in the medicine, the followers of questionable weight reduction practices were, if anything, more impressed than the other weight-concerned respondents. For example, testimonials by ordinary people would give 48 percent of the former group, and 36 percent of the latter group, more confidence in the medicine. The percentages for the claim of cure instead of just relief were 45 percent and 28 percent respectively. Other differences were smaller.

Thus, despite their education, the followers of questionable weight reduction practices seem to be people who are more susceptible generally to claims and persuasion than are weight-concerned people who avoided the questionable practices.

When forced to choose between two statements, "Good health is a natural thing" and "A person has to work at it constantly to have good health", 70 percent of the followers of questionable practices and 60 percent of the remaining weight-concerned respondents chose the second.

In an item that is described in detail earlier in this report, 15 percent of the followers of questionable practices and

9 percent of the other weight-concerned respondents said that if they had a health problem they would try a medicine that a friend with the same problem said had helped him, even if their doctor said it was worthless. Similarly, 52 percent of the former group and only 35 percent of the latter said they would go on using a medicine that seemed to make them feel better even if their doctor said it was worthless but harmless.

Respondents were presented with a list of five ailments and told to assume they had found a medicine that controlled the problem as long as they continued the medication. They were asked how long they would wait, under these conditions, before seeing a doctor. On two of the ailments -- headache and acid stomach -- there was no difference in response, but on the other three -- sore throat, cough and skin rash -- the followers of questionable practices showed some greater tendency to self-medication. The percentages of the followers of questionable practices who would wait three days or less were five to nine points below those for the other weight-concerned respondents.

There is evidence, therefore, that a tendency to self-medication and to trust one's own evaluation of a medicine over that of a doctor is more true of followers of questionable weight control practices than of other weight-concerned respondents.

The responses of the groups being compared to the series of statements covering weight reduction practices are shown in Table 43. The responses are different for only two statements: a smaller percentage of the followers of questionable practices agreed that the only way to lose weight is to eat less food than the body uses, and a higher percentage judged as true the proposition that sweating will produce meaningful weight loss. (The latter finding was due entirely to those people whose specific questionable practice was "sweat inducing".) It appears that following questionable practices in this area is not highly related to a specific belief system.

Table 43

Percent Agreeing with Statements about Weight Reduction,
by Weight Reduction Practices Category

	<u>Followers of Questionable Practices</u>	<u>All Other Weight Concerned Respondents</u>
People can reduce their weight substantially by massage	18	17
People can reduce their weight substantially by a lot of sweating	58	39
People can reduce their weight substantially by taking special products available without a prescription to control their appetite	37	38
People who want to reduce should eat more fats and less sugar and starches than they usually eat	19	17
People can reduce their weight substantially by staying on their regular food and using artificial sweeteners instead of sugar, or drinking only diet soft drinks	40	40
The only way to reduce weight substantially is to eat less food than the body will use up	77	85
People who want to lose weight should keep up with the latest diets published in magazines	10	9
Diets wouldn't be published unless they had been tested and proven to work	25	28

Correlates of Specific Questionable Practices

The analysis just preceding grouped together several questionable practices. It would be possible, of course, that some of the differences observed and reported were due to some, but not all, of the questionable practices. It would also be possible that differences among the questionable practices might have obscured some relationships.

To investigate these possibilities an additional analysis was undertaken, and reports of those who tried to lose weight by sweating, and users of appetite depressants not recommended by a medical doctor or osteopath, were examined separately. In addition, users of massagers and effortless exercisers were examined; the questionable practice category included only those who had purchased these devices, but they were too few for separate analysis. Other groups that were added into the questionable practice category could not be analyzed separately because their numbers were too small.

Some selected demographic characteristics of the four groups are shown in Table 44.

A comparison of Table 44 with Table 42 makes it clear that it is the "sweat inducing" group alone that accounts for the high proportion of males in the questionable practices category. In fact, males are underrepresented in the other groups.

The higher income and education in the questionable practices category is characteristic of all the groups examined except the users of appetite depressants not recommended by a medical doctor or osteopath. That group was about the same as the weight-concerned respondents who followed no questionable

Table 44

Percent of Those Following Various Weight Reduction Practices,
by Selected Demographic Characteristics

	<u>Non- Prescription Appetite Depressant</u>	<u>Massager</u>	<u>Effortless Exerciser</u>	<u>Sweat Inducement</u>
Male	19	22	26	65
Eighth grade education or less	13	9	7	3
Income over \$12,000	13	35	31	42
Age 34 or younger	48	39	49	64
Age 65 or older	5	6	6	2
Grew up on a farm	20	17	17	12
Grew up in a suburb	14	12	12	16
Resides on a farm	6	10	8	4
Resides in a suburb	15	19	36	17

practices with regard to education, and it included fewer people with high incomes. The users of non-prescription appetite depressants are, therefore, the single exception to the generalization that questionable weight control practices are associated with higher socioeconomic status.

The relationship involving farm and suburban origins that was discussed from Table 42 applies to all four groups examined. In addition, the use of an "effortless exerciser" is seen in Table 44 to be especially characteristic of people currently residing in a suburban area (18 percent of these weight-concerned respondents who followed no questionable practices resided in a suburb).

The other differences that were discussed in the preceding section, which compared the total group of followers of questionable practices with the other weight-concerned respondents, generally were found to apply to all four of the specific groups under investigation here. That is, the analysis provides no reason to believe that such things as self-medication, susceptibility to advertising claims, and the other issues discussed, apply only to some of the subgroups making up the questionable weight practices category. Neither did the analysis reveal any additional important differences in these "background" areas.

Some differences were obtained on the statements covering beliefs about weight control practices, and are demonstrated in Table 45.

A comparison of Tables 43 and 45 suggests that faulty beliefs have little to do with most of the practices that were investigated. The users of sweat inducers do tend

Table 45

Percent Agreeing with Statements about Weight Reduction,
by Specific Weight Reduction Practices

	<u>Users of Non- Prescription Appetite Depressants</u>	<u>Users of Massagers</u>	<u>Users of Effortless Exercisers</u>	<u>Users of Sweat Inducers</u>
1. People can reduce their weight substantially by massage	16	11	7	16
2. People can reduce their weight substantially by a lot of sweating	33	34	44	80
3. People can reduce their weight substantially by taking special products available without a prescription to control their appetite	37	21	30	35
4. People who want to reduce should eat more fats and less sugar and starches than they usually eat	10	18	17	22
5. People can reduce their weight substantially by staying on their regular food and using artificial sweeteners instead of sugar, or drinking only diet soft drinks	41	31	32	46
6. The only way to reduce weight substantially is to eat less food than the body will use up	93	92	92	68
7. People who want to lose weight should keep up with the latest diets published in magazines	6	5	10	16
8. Diets wouldn't be published unless they had been tested and proven to work	20	23	20	31

to have more faulty beliefs than the weight-concerned respondents who followed no questionable practices, especially on the statement involving sweating. But those in the other categories tend to have sounder beliefs than the non-questionable weight-concerned respondents, and do not even stand out on the statements that bear directly upon their questionable practice. It appears, therefore, that questionable practices in this area are not to be explained by any special commitment to specific faulty beliefs about weight reduction methods. It seems, rather, to involve a kind of general susceptibility to claims and persuasion, a general tendency to self-medication, and an income that can afford to "dabble" with various practices.

Chapter Five: BOWEL REGULARITY

Laxatives, cathartics and other peristaltic stimulants are required to bear label warnings to this effect:

Warning: Do not use when abdominal pain, nausea, or vomiting are present. Frequent or prolonged use of this preparation may result in dependence on laxatives.*

The need to avoid use of laxatives, etc., when contraindicated (as in appendicitis) or to prevent dependence (a serious health problem) is medically well established. As will be seen, many persons have fears, beliefs and opinions which support the excessive use of laxative products. This, of course, is not to deny that some individuals do need to stimulate elimination.

The concept that body wastes are so toxic that clock-like regularity must be induced survives today from early 19th century medicine which for a time regarded "purgings" as standard treatment in virtually all ailments.

Beliefs about Bowel Regularity

The respondents were asked to judge the truth of two statements about bowel movements. The statements, and the percentages who judged them to be true, are shown in Tables 46 and 47.

*Code of Federal Regulations - Title 21 - Food and Drugs, Sec. 131.5.

Table 46

Percent Agreeing with Statements about
Bowel Movements, by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Older</u>
People should have a bowel movement every day, for good health	67	74	62	66	66	68	69	68
People should do something regularly to help with bowel movements*	31	35	27	27	27	29	35	42

*The second statement was asked only of those respondents who judged the first one to be true, but the percentages in the tables are for the total number of persons in each category. Thus, the percentages for the second statement are based upon the assumption that judging the first statement as false necessarily implies that the second statement is false.

Table 47

Percent Agreeing with Statements about Bowel
Movements, by Education and Income

	<u>Total</u>	<u>Less Than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
People should have a bowel movement every day for good health	67	77	65	56	73	70	65	64
People should do something regularly to help with bowel movements*	31	42	28	19	42	36	28	24

*The second statement was asked only of those respondents who judged the first one to be true, but the percentages in the tables are for the total number of persons in each category. Thus, the percentages for the second statement are based upon the assumption that judging the first statement false necessarily implies that the second statement is false.

Two-thirds of the total sample believed that a bowel movement every day was necessary for health, and nearly a third believed that regular help with bowel movements is appropriate.

People with lesser education and people with lower incomes are particularly likely to believe in the necessity of daily bowel movements, and in the appropriateness of doing something regularly to insure this. The beliefs are somewhat more common among men than among women.

Interestingly, age has little to do with the belief that daily bowel movements are necessary for good health, but older people are more likely than younger ones to believe in the desirability of regular inducing of bowel movements. Apparently, while the more fundamental misconception (the first statement) is no more common among the elderly, those older people who do subscribe to it are particularly likely to approve of taking action to implement it.

Inducing Bowel Movements

Table 48 shows the percentages of people who reported ever doing anything to induce bowel movements. Those who follow this practice are more likely to be women, to be older, to have little education, and to have low incomes. Those who reported ever doing anything to induce bowel movements were asked what it was they did, and the most common practice is the use of laxatives: 76 percent of those who said they ever did anything reported that laxatives were their usual procedure. Special foods were given as the usual practice by 22 percent, 5 percent cited enemas, 4 percent cited suppositories, and 3 percent

Table 48

Percent of Various Demographic Groups
Who "Ever Do Anything
to Help with Bowel Movements"

<u>Total Sample</u>	30
<u>Sex</u>	
Men	22
Women	38
<u>Age</u>	
Under 30	21
30-39	24
40-49	30
50-64	36
65 and over	47
<u>Education</u>	
Less than high school	37
High school	26
More than high school	25
<u>Family Income</u>	
Under \$3,000	45
\$3,000-\$6,000	34
\$7,000-\$11,999	26
\$12,000 and over	23

cited some other practice. (These percentages sum to more than 100% because some people cited more than one practice.) The number of people who reported using laxatives represented 23 percent of the total sample.

Table 49 shows the frequency of doing something to help with bowel movements. Of those who ever do anything, 17 percent reported doing it every day or nearly every day; these represent 5 percent of the total sample. Another 20 percent of those who ever do anything, representing 6 percent of the total sample, estimated their frequency at once or twice a week. It appears that frequent action to induce bowel movements is not at all uncommon among the American public.

Older people are not only more likely to be doing something to induce bowel movements (shown in Table 48), they also do so more often. Of those 65 or older who ever do anything, 30 percent do it every day or nearly every day, while only 10 percent of those people under 30 who ever do something to help with bowel movements reported doing so every day or nearly every day.

Summarizing the relationship between age and frequent reliance upon something to help with bowel movements, in the total sample 5 percent reported doing something every day or nearly every day, while 14 percent of the total number aged 65 or over reported doing so.

While sex, education, and income were related to ever doing anything to help with bowel movements, they were not related meaningfully to the frequency of doing so.

Table 49

Frequency of Doing Something
to Induce Bowel Movements,
by Percent of Total Sample, and
Percent of Those Who Ever Do Anything

	<u>Total Sample</u>	<u>Those Who Ever Do Anything</u>
Every day	4	12
Nearly every day	2	5
Once or twice a week	6	20
Once or twice a month	7	23
Less than once a month	12	40

Sources of Influence

Of those people who reported ever doing anything to help with bowel movements, 39 percent indicated they were proceeding on the advice of a medical doctor. Other health practitioners were cited by a mere handful of respondents, and 57 percent said no one who gives a health service had advised them. Older people were more likely than younger ones to report a medical doctor's advice (48 percent of those 65 or over, as compared with about one-third of those in the younger age brackets who ever do anything about elimination).

Respondents were shown a list of possible sources of influence upon them and were asked which ones had, in fact, influenced them. The responses are shown in Table 50.

Word-of-mouth communication seems to be the biggest source of influence, with broadcast advertising leading the other categories. The tendency for more older people to deny all these influences may be related to their greater reporting of medical advice, as indicated above. Relationships with other demographics are less substantial than those involving age.

Over-Reliance upon Bowel Movement Aids

Medical opinion regards routine and frequent self-medication to induce bowel movements as dangerous, and an attempt was made to isolate this questionable practice in this study. Of the total sample, 2 percent reported

Table 50

Percent of Those Who Ever Do Anything
to Help with Bowel Movements,
Who Cited Various Influences, by Age

	<u>Total</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
Relatives	18	42	22	13	11	11
Friends	7	9	4	4	7	10
TV or radio commercials	7	11	6	6	9	4
Store displays	3	2	6	2	3	3
Medical columns	3	2	4	1	2	4
Newspaper or magazine ads	3	3	4	1	3	2
Books	2	2	3	2	+	1
Lectures	1	+	-	-	1	-
Mail ads	+	-	-	-	+	-
Salesmen	-	-	-	-	-	-
None of the above	66	46	60	74	71	72

+ Means less than 1%

that they did something every day or nearly every day to help with bowel movements, and that they were not doing so on the advice of a medical doctor or osteopath. This index is crude, of course: it probably includes some people who merely make it a daily practice to consume some food thought to be laxative, and on the other hand, it excludes some people whose frequency of doing something was not quite high enough to consider it "nearly every day". However, the estimate that somewhere around 2 percent of the American population makes excessive use of bowel movement aids is not reasonably accurate.

Table 51 shows the demographic characteristics that tend to differentiate the people in question from the total sample. Those who "over-rely" tend to be older, and to have less education and lower incomes. They very often grew up on a farm (but are no more likely than the total sample to be living on a farm now, which may indicate that the frequency of farm origins is simply an effect of their greater age). They are more likely to live in the Pacific states than is the total sample. Other demographic characteristics that were examined showed smaller differences.

Table 52 shows some of the attitudinal statements that differentiated those who "over-rely" on bowel movement aids from the total sample. While many of the differences in the table are not very great, they seem meaningful in their context. Those who "over-rely" put more emphasis than the total sample on food and diet as a health cause. Their greater impatience about waiting for a medicine to work can plausibly be related to their impatience about missing a bowel movement. The remaining statements can be interpreted as indicating more distrust or resentment of the medical profession among such persons.

Table 51

Percent of the Total Sample and of Questionable Users
of Bowel Movement Aids*, by Selected Demographic Characteristics

	<u>Total Sample</u>	<u>Those Who "Over-Rely" on Movement Aids</u>
Seventh grade education or less	11	21
College education or more	11	15
Income under \$3,000	14	30
Income over \$15,000	12	5
Age 70 or over	9	26
Age 60 or over	22	46
Age 50 or over	37	64
Grew up on a farm	28	40
Grew up in a large city	23	18
Residing in Pacific region	12	22

*People who do something to help with bowel movements every day or nearly every day, not on the advice of a medical doctor or osteopath.

Table 52

Percent of the Total Sample and of
Questionable Users of Bowel Movement Aids*
Who Agree with Selected Attitudinal Statements

	<u>Total</u> <u>Sample</u>	<u>Those Who</u> <u>"Over-Rely"</u> <u>On Bowel</u> <u>Movement Aids</u>
For most people who have bad health, a major reason is they don't eat right	75	84
If a medicine doesn't help you right away, it probably isn't going to do any good at all	30	38
Most doctors put helping their patients above everything else	78	73
A lot of doctors are only interested in making money	62	69
There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	63	70
The medical profession concentrates too much on science and not enough on people	45	65
Despite all the scientific advances, doctors used to help their patients more than they do now	39	58
Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	22	30
I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	66	81

*People who do something to help with bowel movements every day or nearly every day, not on the advice of a medical doctor or osteopath.

That the distrust is general, rather than specific, is evidenced by their greater tendency to criticize doctors on both sides of an issue: doctors ignore good old-fashioned remedies, and are against new ways; doctors concentrate too much on science instead of people, and a skillful doctor is more desirable than one with a good manner with patients.

Interestingly, the resentment of the medical profession is not directly reflected behaviorally: 29 percent of those who "over-rely" had seen a doctor within two weeks of being interviewed, as compared with 17 percent of the total sample. Again, this difference could be due simply to the greater age of the questionable users.

One area that did not show any real difference between those who "over-rely" and the total sample is of particular interest. When asked how long they would go on treating a sore throat, a cough, an acid stomach, a headache, and a skin rash on their own, before seeing a doctor, the two groups are not distinguishable. This finding could mean that people who are regularly inducing bowel movements without a physician's advice do not regard this as "treatment", and do not regard laxatives as "medicine". They may conceptualize it more as "hygiene", in the same way as shaving, tooth brushing, or bathing, than as a matter that should concern a physician. There is additional evidence for this interpretation in the fact that those who "over-rely" were more critical than the total sample of self-treatment and "drugstore" remedies. It appears that what they themselves are doing is not viewed as treatment.

Finally, the findings shown in Table 53 may provide some additional insight into the psychology of questionable heavy use of bowel movement aids. The respondents were presented with two pairs of statements, and within each pair, asked to choose the one that seemed more true. The statements and responses are shown in Table 53. The attitudes demonstrated here seem consistent with the willingness of the questionable users to intervene in a body function rather than rely upon natural processes. (As will be seen elsewhere in this report, the tendency to conceptualize good health as not being a natural occurrence but as resulting from constant deliberate effort seems to underlie much confused thinking about health issues.)

Table 53

Percent of the Total Sample and of
Questionable Users of Bowel Movement Aids*
Who Chose Statements as "More True"

	<u>Total Sample</u>	<u>Those Who "Over-Rely" On Bowel Movement Aids</u>
Good health is a natural thing	40	26
A person has to work at it constantly to have good health	58	74
Good or bad health primarily results from the body we are born with	14	9
How we take care of ourselves is more important than the body we are born with	83	90

*People who do something to help with bowel movements every day or nearly every day, not on the advice of a medical doctor or osteopath.

Chapter Six: SELF-DIAGNOSIS

Diagnosis by Self or a Non-physician

Self-diagnosis of health conditions can be a very questionable health practice. However, it is a practice that everyone engages in, to some extent, and almost necessarily so. Headaches, sunburn, runny nose and minor injuries are examples of obvious conditions which may call for self-treatment or first aid. It would be impractical and a waste of scarce medical manpower to expect physicians to deal with every cough, twinge, ache, or sore. Deciding whether, and when, to see a physician is, in a sense, self-diagnosis.

Self-diagnosis of serious or chronic conditions is another matter. If a layman diagnoses his aches as arthritis, or a shortness of breath as asthma, for example, he runs some inappropriate risks. What he believes to be asthma could be emphysema, or lung cancer, and the same is true for other self-diagnoses of persistent problems.

Furthermore, even when the self-diagnosis is correct there is much to be lost if a physician is not seen, since the therapeutic resources available to a physician far surpass any treatment a layman might devise.

Occurrence of Self-Diagnosis

Respondents were asked if they had ever had any of the following ailments: asthma, allergies, heart trouble,

high blood pressure, diabetes, hemorrhoids, or arthritis/rheumatism/similar ailments. Those who said they had were then shown a list of "people who give a health service" and asked which, if any, of them said the respondent had the ailment. The results are shown in Table 54.

Practically everyone who said he had heart trouble, high blood pressure, or diabetes reported that the condition had been diagnosed by a physician (medical doctor or osteopath), which is not surprising in view of the widespread awareness of the seriousness of these conditions. On the other hand, significant numbers of those claiming to have had asthma, allergies, hemorrhoids, and arthritis or rheumatism evidently were relying on self-diagnosis.

Characteristics of Self-Diagnosers

All respondents who said they had had one of the ailments discussed above, but did not say it had been diagnosed by a medical doctor or osteopath, were classified as self-diagnosers. About 12 percent of the total sample was so classified, combining across the ailments.

The analysis performed does not permit an exact determination of the number of self-diagnosers reporting each ailment. However, it appears that about one-half of those classified as self-diagnosers had self-diagnosed arthritis, rheumatism, or a similar ailment, and allergies and hemorrhoids accounted for about one-fourth each. Asthma and high blood pressure were somewhat around one-twentieth each, and heart trouble and diabetes were down around 1 percent each. (The proportions sum to more than unity because a respondent could qualify on more than one of the ailments.)

Table 54

Percent of Self-Reported Sufferers of Ailments
Citing Various Sources of the Diagnosis

	<u>Asthma</u>	<u>Allergies</u>	<u>Heart Trouble</u>	<u>High Blood Pressure</u>	<u>Diabetes</u>	<u>Hemorrhoids</u>	<u>Arthritis/ Rheumatism</u>
	%	%	%	%	%	%	%
Chiropractor	1	1	+	1	2	+	5
Hemeopath	-	+	-	-	-	-	-
Medical Doctor	87	83	97	96	95	75	79
Naturopath	+	+	-	+	-	+	-
Nurse	+	+	-	1	-	1	1
Osteopath	3	1	3	3	2	2	4
Pharmacist	+	1	1	1	-	+	+
Other	-	1	+	1	-	-	1
Self-diagnosis	10	15	1	1	2	21	16

+ Less than 1 percent

Perhaps the largest demographic difference distinguishing the self-diagnosers from the total sample is age. The self-diagnosers tended to be somewhat older: 28 percent age 60 or over, versus 22 percent for the total sample; 20 percent versus 15 percent of age 65 or over; 13 percent versus 9 percent at age 70 or over. At the other extreme, only 9 percent of the self-diagnosers were under 25, versus 16 percent of the total sample, and 24 percent, versus 35 percent of the total sample, were under 35. This association is hardly surprising, since younger people must have fewer ailments to diagnose.

Somewhat more of the self-diagnosers had low incomes: 19 percent, versus 14 percent of the total sample, with incomes under \$3,000; 33 percent, versus 28 percent of the total sample, with incomes under \$5,000. (This finding, of course, may be related to the age difference.)

The difference in education was very slight: 25 percent of the self-diagnosers, versus 22 percent of the total sample, with an eighth grade education or less.

There was virtually no difference between the self-diagnosers and the total sample with regard to the male-female proportion.

While 27 percent of the total sample grew up in the Northeastern region of the country, 21 percent of the self-diagnosers did so. The difference was redressed by slightly more of the self-diagnosers growing up in the other three regions (North Central, South and West).

Thirty-five percent of the self-diagnosers reported having grown up on a farm, versus 28 percent of the total sample; 19 percent and 23 percent, respectively, grew up in a large city. While only 7 percent of the total sample was residing on a farm at the time of interview, 10 percent of the self-diagnosers were farm dwellers. Forty-one percent of the total sample and 34 percent of the self-diagnosers, were living in a large city.

The self-diagnosers appeared virtually the same as the total sample with regard to their own evaluation of their health, and worry about it.

Surprisingly, perhaps, there was little difference between the self-diagnosers and the total sample in the length of time that had passed since a doctor was last seen. Twenty-three percent of the self-diagnosers and 29 percent of the total sample, had seen a doctor within the past month (which is where the largest difference occurred). Both percentages seem high, but they are what the respondents reported.

It is also worthy of note that the self-diagnosers were not distinguishable from the total sample as to the impression made on them by some questionable medicine advertising strategies.

Similarly, there was no difference with regard to being impressed by the claims and practices sometimes used by unethical or fraudulent "physicians", such as advertising and offering money-back guarantees.

Attitudes toward the "medical establishment" did not

distinguish the self-diagnosers: they were no more likely than the total sample to agree with statements critical of doctors on the medical profession.

Differences were noted in areas that are perhaps directly related to the self-diagnosis tendency. Nineteen percent of the self-diagnosers and 12 percent of the total sample said they would try a medicine that a friend said had helped him, even if their doctor said it was worthless. Fifty-one percent and 36 percent, respectively, said they would continue to use a medicine that had seemed to help them, even if a doctor later said it could not possibly help. Thus, there seems to be a tendency for self-diagnosers to trust their own judgment where it conflicts with that of a physician.

Not surprisingly, self-diagnosis appears to be related to a general tendency to self-medication. When presented with the ailments sore throat, cough, acid stomach, headaches, and skin rash (few of which have any direct relationship to the ailments used in the self-diagnosis classification), and asked how long they would wait before seeing a doctor if they had found a medication that controlled the problem with continued and repeated use, the percentages saying they would see a doctor in three days or less were 5 to 9 points lower for self-diagnosers than for the total sample. While the difference is not striking, it does seem large enough to be meaningful, and to suggest a relationship between the tendency toward self-diagnosis and a general tendency toward self-treatment.

Chapter Seven: SELF-MEDICATION FOR COMMON AILMENTS

Self-Medication Practices

All respondents were shown a list of health ailments for which non-prescription medicines are common and are actively promoted. The respondents were asked, for each of the ailments, whether they ever use medicine "On your own, not medicine that a doctor advised or prescribed for you". The ailments, and the percentages reporting ever engaging in self-medication, are shown in Table 55.

It seems possible that some of the percentages in Table 55 are understated. For example, nearly half of the respondents denied, in effect, that they had ever used over-the-counter sore throat lozenges before seeing a doctor, or cold pills or nasal spray for a head cold. Impressions from other sources suggest that the use of these products prior to seeing a physician is probably more common than Table 55 indicates. It seems likely that some respondents, in an effort to cast themselves in a favorable light, went too far in denying self-medication, which they know is frowned upon by authorities as a principle.

Thus, Table 55 may well underestimate the incidence of self-medication for the ailments in question. However, there is less reason to question any differences that emerge between groups of respondents. That is, there is no very convincing reason to suspect that people with one set of demographic characteristics are more likely than those with another set of characteristics to make a point of denying self-medication. Therefore, the relationship of demographic differences to the incidence of self-medication can be meaningfully examined.

Table 55

Percent Reporting Ever Using Self-Medication
for Various Ailments, by Age

	<u>Total Sample</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
Sore throat	54	67	57	54	44	43
Coughs	56	64	63	53	49	44
Sinus trouble	18	20	23	20	13	10
Head colds	54	65	60	54	46	38
Hay fever	8	12	12	8	5	4
Skin problems	10	17	9	8	6	5
Helping sleep	6	4	7	6	8	6
Upset or acid stomach	46	52	51	47	40	37
None of these	16	11	11	17	21	25

Differences according to sex, education, and income were neither large nor consistent. With age, however, there is a relationship, as Table 55 indicates. For almost every symptom covered, self-medication was more commonly reported by younger respondents than by older ones. Older people either have fewer of these problems (which seems unlikely) or they more often suffer them without any treatment, or they rely more upon medical advice or prescriptions. Perhaps the greater experience that older people have gained makes them more inclined to seek the effective treatment a physician can provide.

If older people do rely more upon physicians' services for the problems investigated, it is not a simple matter of their seeing a doctor much more often. Another questionnaire item showed that there is little difference related to age in the reported time elapsed since a physician was last seen. For example, of those aged 65 and older, 65 percent reported they had seen a physician within the past six months; the lowest percentage in this respect, 53 percent, was recorded for those aged 40-49.

In a study of health practices, the incidence of any self-medication for the common ailments investigated is less important than the duration of the self-medication, since brief self-treatment of the ailments in question would be regarded as legitimate by practically all authorities.

The respondents who reported any self-medication were asked how long they "Usually go on using medicine on your own" for the problem and the results are shown in Table 56. When the percentages are calculated on the

Table 56

Percent of Self-Medicators Reporting Various Periods of Time As Typical for Their Self-Medication

	<u>Sore Throat</u>	<u>Coughs</u>	<u>Sinus Trouble</u>	<u>Head Colds</u>	<u>Hay Fever</u>	<u>Skin Problems</u>	<u>Sleep</u>	<u>Upset Or Acid Stomach</u>
1-3 days	67	53	51	50	35	28	54	78
4 days-1 week	27	36	26	40	28	27	20	13
8 days-2 weeks	3	7	8	6	9	11	8	2
15 days-1 month	1	2	4	2	8	10	5	2
32 days-1 year	+	1	5	1	12	12	4	1
More than 1 year	1	+	3	+	5	8	3	2
Don't know	1	1	2	1	4	5	7	1

+ Means less than 1 percent

total sample (not shown in the table), including those persons who denied any self-medication at all, they are smaller, of course. For example, the percentage of the total sample that reported typical self-medication longer than two weeks ranged between 1 and 3 percent, depending upon the ailment.

Again, there is reason to question the meaningfulness of the absolute values of the percentages, since the ability of many people to remember with accuracy how long they use a medicine may be doubtful. While memory lapses or "guesses" may be partially random, and to that extent they introduce no systematic bias, they may be affected by the desire to "look good" and to deny excessive self-medication. In short, the percentages given could be underestimates of the extent of self-medication. Certainly, it seems unlikely that they are overestimates.

In addition to the question on the "usual" period of self-medication, respondents who reported any self-medication in each of the areas were also asked to report "The longest period of time you ever used medicine... without advice from a doctor". The results are shown in Table 57.

For many respondents, the "longest periods ever", as shown in Table 57, are somewhat longer than the "usual" periods that were shown in Table 56. However, most of the shifting occurred at the shorter time intervals; the percentages above the two-week point in Table 57 are only slightly higher than those in Table 56.

Table 57

Percent of Self-Medicators Reporting Various Periods of Time
As Their Longest Ever for Self-Medication

	<u>Sore Throat</u>	<u>Coughs</u>	<u>Sinus Trouble</u>	<u>Head Colds</u>	<u>Hay Fever</u>	<u>Skin Problems</u>	<u>Sleep</u>	<u>Upset Or Acid Stomach</u>
1-3 days	50	40	40	37	27	16	45	67
4 days-1 week	39	42	31	46	27	33	22	19
8 days-2 weeks	7	12	11	11	13	13	10	4
15 days-1 month	2	4	6	4	9	11	7	4
32 days-1 year	1	1	5	1	14	12	6	3
More than 1 year	+	+	5	+	6	11	4	3
Don't know	1	1	2	1	4	4	6	1

+ Means less than 1 percent

Self-Medicator Classification

Almost any form of self-medication is a questionable practice if it is maintained over a long period of time. When an ailment persists, a physician should be seen, even if self-medication has brought the problem under some control, since a persistent symptom may very well signify a serious disease or disorder for which medical attention is essential. Even if serious disease is not proven to be present, to continue to suffer from some problem without bringing to bear the more potent medications and treatments available from a physician is unwise.

Typically, non-prescription drugs ("home remedies") are formulated and recommended in their labeling as first aid for minor ills. Users are cautioned that if distress is not relieved or recurs frequently, they should consult a physician. In some 75 label warnings on such drugs required by FDA regulations, there are 45 specific references to circumstances when a physician should be consulted. Many warn against prolonged use.

The analysis to follow is concerned with the characteristics of people whose self-medication practices are potentially harmful. Label warnings usually recommend use of self-medication for only a few days, prior to seeing a physician for a problem that proves persistent. However, the aim in the material to follow was not so much to locate all persons whose practices were questionable as to obtain a group for analysis who were unarguably following fallacious practices. Since the "cutting point" is somewhat arbitrary, it was set high, rather than low, and those people who reported typical periods of self-medication for any of the ailments of greater than two weeks were singled out for attention.

Twelve percent of the total sample was so classified. The great majority qualified on only one of the ailments.

The estimate that 12 percent of the adult population, or about 16 million people, self-treat one or more of the ailments investigated for two weeks or longer is reasonably accurate. While it was suggested earlier that the percentages who reported any self-medication seemed lower than would be expected, it seems likely that most respondents who erroneously denied any self-medication would, if they had answered the question correctly, have fallen below the two-week interval. Genuine memory lapses should introduce random errors that are self-cancelling. It is possible, of course, that some people did not want to admit periods of self-medication longer than two weeks, and so biased their responses downward. To the extent that this occurred, the figure of 12 percent is an underestimate.

Certainly there is every reason to conclude that prolonged self-medication is a serious problem in the health practices of the population, especially when it is remembered that two weeks is a very long time, and exceeds all recommendations for sound health practices.

Characteristics of Questionable Self-Medicators

The possible unreliability in the incidence estimates for self-medication that has been discussed is not an issue in the analyses to follow. While some people may have minimized their self-medication, any differences that emerge between those who admitted to self-medication

for periods greater than two weeks and the total sample are genuine. The characteristics of people in the questionable self-medicator group should be largely unaffected by the suspected response bias, and there is no plausible basis on which significant differences between them and the total sample could result from any tendency to minimize self-medication.

It was shown earlier, in Table 55, that younger people were more likely than older people to report any self-medication in the areas covered. This difference persists in the comparison of questionable self-medicators with the total sample as well, as is shown in Table 58. Older persons occur among the questionable self-medicators in a lower proportion than in the total sample.

No other demographic difference was as large. In fact, only one other demographic characteristic is worthy of note. Questionable self-medicators were slightly more likely than the total sample to have grown up in the Southern states (41 percent versus 36 percent) and Western states (11 percent versus 8 percent).

As part of the "attitudinal" material in the questionnaire, all respondents were questioned on their orientation toward self-medication on some of the same ailments as those discussed above: sore throat, cough, acid stomach, headaches and skin rash. In this case, however, the focus was not upon actual practices, but upon a hypothetical situation: "Suppose you had _____ and you found some medicine that controlled it, as long as you kept taking the medicine. How long would you wait before you asked a doctor about it?" The results are shown in Table 59.

Table 58

Percent of Questionable Self-Medicators, and
of the Total Sample, in Various Age Categories*

	<u>Total Sample</u>	<u>Questionable Self-Medicators</u>
Under 25	16	22
Under 30	26	36
Under 35	35	46
60 and over	9	8
65 and over	15	12
70 and over	22	16

*The age categories are cumulative. Those "under 30", for example, include those "under 25".

Table 59

Percent of Questionable Self-Medicators, and of The
Total Sample, Who Would See a Doctor Within Specified
Periods After Self-Treatment

	<u>Total Sample</u> %	<u>Questionable Self-Medicators</u> %
Sore throat		
3 days or less	46	27
2 weeks or less	90	80
Cough		
3 days or less	41	25
2 weeks or less	89	90
Acid stomach		
3 days or less	49	31
2 weeks or less	85	72
Headaches		
3 days or less	55	39
2 weeks or less	87	81
Skin rash		
3 days or less	52	34
2 weeks or less	88	78

Most of the total sample (85 percent or more) reported they would discontinue self-treatment and see a doctor within two weeks, even if the self-treatment was successful in controlling the symptoms. While somewhat fewer of the questionable self-medicators reported the same thing, the difference between the two groups is not very large when it is remembered that these are the respondents who reported elsewhere that they typically did self-medicate for more than two weeks for some problem or other. If those who, in fact, have engaged in prolonged self-medication are little more likely than people in general to incline that way in a hypothetical situation, it appears that even they are not entirely sold on the propriety of their own practices.

However, at the interval of "three days or less", the difference in Table 59 is somewhat larger, and does seem to indicate a significantly greater generalized tendency to self-treatment on the part of the questionable self-medicators.

Table 60 compares the reaction of questionable self-medicators and the total sample to "Some things that are sometimes included in medicine advertising or labels".

As the table shows, somewhat more of the questionable self-medicators were favorably impressed by several of the claims. The difference is not so large, however, as to establish acceptance of advertising claims as a major factor in explaining questionable self-medication.

When asked if they would try a medicine that a friend with a similar problem said helped him, but their doctor

Table 60

Percent of Questionable Self-Medicators, and of
the Total Sample, Reporting Various Claims
Would Give them "More Faith" in a Medicine

	<u>Total Sample</u>	<u>Questionable Self- Medicators</u>
The medicine is made by a well-known company	68	74
The medicine is supposed to help many conditions or diseases, not just one	19	23
Some famous person testifies that he was helped by the medicine	23	27
Many ordinary people testify that they were helped by the medicine	41	47
A doctor is quoted as saying the medicine is good	58	58
The medicine not only relieves a problem, it <u>cures</u> it permanently	33	42
You can get a doctor's diagnosis by mail	5	6
The medicine is brand new	11	11

said was worthless, 12 percent of the total sample and 15 percent of the questionable self-medicators said they would. Similarly, when asked if they would continue using a medicine that had seemed to help them if their doctor said it was worthless, but harmless, 36 percent of the total sample and 41 percent of the questionable self-medicators said they would. While these differences are in the direction that might be predicted, the differences are not very large. People in general (the total sample) seem to have a considerable tendency to reject a physician's judgment when it conflicts with their own or that of a friend, and those known to have actually engaged in prolonged self-medication have no greater tendency to do so.

In another somewhat related item, that is perhaps a more critical test of the tendency to reject orthodox medical opinion, respondents were presented with this question: "Suppose somebody comes up with a brand new medicine for cancer. Most scientists and doctors say it is worthless--based on their analysis of and experience with it, there is no way it can cure cancer. But a few doctors use it, and they have patients who say it actually cured their cancer and saved their lives". When asked "Who is more likely right", 24 percent of the total sample and 25 percent of the questionable self-medicators sided with "The people who say it cured them". Clearly, a substantial number of people in general question orthodox authority in this critical area, and those known to have engaged in prolonged self-medication seem no more likely to do so.

Table 61 shows the percentages who agree with some selected opinion statements. (The statements from the questionnaire that were omitted from this table are those that showed no difference and have a content not logically related to self-medication.)

Table 61

Percent of Questionable Self-Medicators, and of The
Total Sample, Agreeing with Selected Opinion Statements

	<u>Total Sample</u> %	<u>Questionable Self-Medicators</u> %
Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them	38	47
Most of the things that people buy in drug stores to treat themselves are practically worthless	47	42
If a medicine doesn't help you right away, it probably isn't going to do any good at all	30	25
It is nearly impossible to know in advance whether or not a medicine will help you because what works for one person won't work for another	90	91
The government doesn't have any business deciding what kinds of medicines are legal	17	15
Most doctors put helping their patients above everything else	78	73
A lot of doctors are only interested in making money	61	62
There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	62	62
The medical profession concentrates too much on science and not enough on people	45	44
Despite all the scientific advances, doctors used to help their patients more than they do now	39	38
Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	22	26
I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	66	63

While Table 61 does show some differences in the direction that might have been predicted, for the most part the self-medicators are not very distinguishable by their opinions in these areas. Of particular interest is the finding that their attitudes toward physicians seem to be about the same as those of the total sample.

In fact, reviewing the findings that have been considered, the self-medicators under study here do not appear to be people who are very clearly set apart from the total sample. In other words, the analysis fails to find any correlates of their behavior that help very much in understanding or explaining it. If self-medication is not deeply rooted in some distinguishing backgrounds or beliefs, it may be that nearly everyone is a potential abuser of self-medication, and that the major distinguishing characteristic of those who have actually done it is that they found themselves in health situations that encouraged it.

Chapter Eight: SELF-MEDICATION FOR SERIOUS AILMENTS

Self-Medication Practices

In the preceding section of this report, self-medication for such common ailments or symptoms as coughs and sore throats was examined. The critical feature for those ailments was the length of time over which the self-medication was maintained, since brief periods of self-medication for these ailments would be considered acceptable.

In this section of the report some other instances of self-medication will be examined. These instances involve either more serious ailments than those in the preceding section, or they involve a more serious misuse of self-medication: the expectation of a cure rather than just symptomatic relief.

Table 62 shows the ailments that were investigated and the percentages of the sample who said they had ever had these ailments. The table is not, of course, a completely accurate representation of the actual incidence of these problems in the population, since it relies solely upon the respondents' self-reports. As will be shown, some people relied upon their own self-diagnosis in reporting they had these problems, and a physician's diagnosis might very well be otherwise. On the other hand, there are undoubtedly some people who reported the absence of a problem who would be found to have it if they were examined thoroughly by a physician.

These qualifications do not render Table 62 any less valuable. The information it reports is the percentages of people who believe they have the problems, and, whether or not the belief is correct, these are the people who make up the potential for such practices as self-medication.

Table 62

Percent Reporting Ever Having Had Certain Ailments,
by Sex, Age, and Education

	<u>Total</u> <u>Sample</u>	<u>Men</u>	<u>Women</u>	<u>Under</u> <u>30</u>	<u>30-</u> <u>39</u>	<u>40-</u> <u>49</u>	<u>50-</u> <u>64</u>	<u>65</u> <u>and</u> <u>Over</u>	<u>Less</u> <u>than</u> <u>H.S.</u>	<u>High</u> <u>School</u>	<u>Col-</u> <u>lege</u>
Asthma	6	6	6	7	6	5	5	6	7	4	7
Allergies	19	14	23	22	21	19	17	12	14	18	27
Heart trouble	8	8	8	4	3	5	10	22	12	5	5
High blood pressure	17	13	19	6	7	13	26	37	22	13	12
Diabetes	3	3	3	1	3	2	5	7	4	3	3
Hemorrhoids	17	14	20	10	19	21	20	21	18	17	18
None of these	53	59	49	65	57	55	47	37	52	57	51

The relationship with age that is shown in the table is not unexpected, and the relationship with sex is not striking or surprising. Much of the relationship with education could result from the fact that younger people, who tend to have more education, tend to suffer less frequently from many health problems.

Table 63 shows the source of the diagnoses of the ailments as reported. The incidence of self-diagnosis or diagnosis by anyone other than a physician is low for heart trouble, diabetes, and high blood pressure. For hemorrhoids, asthma, and allergies it is much higher. In fact, about 4 percent of the total sample had self-diagnosed hemorrhoids, 3 percent had self-diagnosed allergies, and .5 percent had self-diagnosed asthma. Self-diagnosis of any of these conditions is a serious error.

Table 64 shows the percentages of those who reported the ailments who had medicine "prescribed, recommended or sold" to them by certain "health service persons". (Respondents were shown a list of these "health service persons".) The percentages of the total sample who received medication for these ailments from anyone other than a medical doctor are small. Even the percentages for osteopaths, who are the second most often cited persons in the table, are well under 1 percent of the total sample. However, any medication dispersed by unqualified persons is potentially serious.

The respondents were asked, after the question that is summarized in Table 64, if they ever used any medicine "Not prescribed or recommended by a health service person". The results are shown in Table 65. (Tables 64 and 65 are different because some people used no medication, and other people used both medicine obtained from a health service

Table 63

Percent of Self-Reported Sufferers Reporting
Various Sources for the Diagnosis

	<u>Asthma</u>	<u>Aller- gies</u>	<u>Heart Trou- ble</u>	<u>High Blood Pres- sure</u>	<u>Dia- betes</u>	<u>Hemor- rhoids</u>
Chiropractor	1	1	+	1	2	1
Homeopath	-	+	-	-	-	-
Medical doctor	87	83	97	96	95	75
Naturopath	+	+	-	+	-	+
Nurse	1	+	-	1	-	1
Osteopath	3	1	3	3	2	2
Pharmacist	1	1	1	1	-	1
Other	-	1	+	1	-	-
No one who gives a health service	10	15	1	1	2	21

+ Means less than one percent

Table 64

Percent of Sufferers Receiving Medicine from
Various Health Service Persons

	<u>Asthma</u>	<u>Aller- gies</u>	<u>Heart Trou- ble</u>	<u>High Blood Pres- sure</u>	<u>Dia- betes</u>	<u>Hemor- rhoids</u>
Chiropractor	1	1	+	+	-	1
Homeopath	-	1	+	-	-	-
Medical Doctor	84	85	86	88	83	68
Naturopath	1	+	-	+	-	-
Nurse	1	-	-	+	-	+
Osteopath	3	1	3	3	2	2
Pharmacist	14	14	5	11	13	10
Other	-	+	+	+	-	+
No one who gives a health service	10	11	11	9	13	25

+ Means less than one percent

Table 65

Percent of Sufferers, and of the
Total Sample, Using Medicine Not Recommended
or Prescribed by a Health Service Person

	<u>Total Sample</u>	<u>Sufferers</u>
Asthma	1	22
Allergies	5	28
Heart trouble	+	1
High blood pressure	+	1
Diabetes	+	2
Hemorrhoids	6	32

+ Means less than one percent

person and medicine obtained on their own. Thus, for example, some of those in the last line of Table 64 had used no medicine at all, and some had used medicine that was not recommended by someone offering a health service.)

All self-reported sufferers from the ailments under consideration were asked if they had ever used medicine that was supposed to "Clear up the cause of the ailment, or cure it completely" (as opposed to "Only make you feel better for a little while"). The percentages who said they had are shown in Table 66.

In actuality, of course, most authorities are at least very doubtful about the possibility of curing most of these conditions with medication. The next question asked--the source of the "cure"--was intended to narrow the focus even more, upon those persons who used a medicine that they believed was a cure which was not obtained through a physician. However, the number of persons involved was so small for some of the ailments that a detailed presentation of the results would be very unreliable. Therefore, Table 67 shows only those ailments for which the base was large enough to make the results meaningful.

Classification of the Practices

Some of the self-medication practices can be considered as questionable in themselves, meaning that they would tend to be regarded as inappropriate by qualified authority. In this category can be placed any use of medicine for heart trouble, high blood pressure, or diabetes that was not recommended or prescribed by a medical doctor or osteopath. For asthma, allergies, and hemorrhoids, however, non-prescription medicine that may offer some symptomatic relief is available, so for these ailments the definition of a questionable practice specifies the use of medicine not recommended by a

Table 66

Percent of Sufferers, and of the Total Sample,
Who Said They Had Used a Medicine
Supposed to Cure Their Ailment

	<u>Total Sample</u>	<u>Sufferers</u>
Asthma	1	20
Allergies	3	17
Heart trouble	1	9
High blood pressure	2	11
Diabetes	+	4
Hemorrhoids	3	17

+ Means less than one percent

Table 67

Percent of Users of Medicine Believed to be
a Cure Citing Various Health Service
Persons as Sources

	<u>Allergies</u>	<u>High Blood Pressure</u>	<u>Hemor- rhoids</u>
Medical Doctor	75	95	50
Naturopath	-	-	-
Osteopath	-	4	3
Pharmacist	3	-	9
Other	1	2	-
No one who gives a health service	21	2	41

medical doctor or osteopath that the respondent believed was supposed to cure the ailment. The proportions of the total sample that were classified in this manner are shown in Table 68.

The number of people in each of the categories, as shown in the table, is quite small. Generalization of these incidence rates directly from the sample to the United States population would produce estimates with a high degree of unreliability. Also, it should be remembered that some of the respondents classified in Table 68 may not actually suffer from the conditions in question, since self-diagnosers were not removed from the classification. They did, however, use the medicine in question, which is the issue under investigation here.

Characteristics of Questionable Self-Medicators

Characteristics of the questionable self-medicators would normally have been analyzed by comparing each of the groups classified in the preceding section with those respondents who had the same ailment but did not report the questionable self-medication. However, the small size of some of the groups introduced difficulties.

The problem could be overcome if the groups in the preceding section could be combined into a single group, cutting across the various ailments, large enough for reliable analysis.

However, combining the groups would mean they are being treated as simply different manifestations of the same fundamental phenomenon. Conceptually, it does not seem reasonable to assume this kind of correspondence between self-medication for heart trouble and for allergies, for example.

Table 68

Percent of Total Sample
Classified in Various Categories

Heart medicine not recommended by a physician	1.3
High blood pressure medicine not recommended by a physician	3.2
Diabetes medicine not recommended by a physician	0.7
Asthma "cure" not recommended by a physician	0.5
Allergy "cure" not recommended by a physician	0.7
Hemorrhoid "cure" not recommended by a physician	1.2
Any of the above	6.6

One condition is much more often life-threatening than the other, one is presumably more related to age than the other, there is considerably more promotion of non-prescription products for one condition than the other, etc.

Furthermore, an empirical examination of the results did not support combining the various groups. If it could have been demonstrated that, despite the unreliability of small numbers, members of the groups were similar to one another in attitudes and demographic characteristics, and had similar patterns of characteristics, it might have argued for combining them. However, such was not, in fact, the case. The results showed that where one group had more of a given characteristic than non-self-medicators, another group had less of it. When another characteristic was examined, the two groups might be the same, while some third group was different. In short, no pattern consistent among the various groups was evident.

Since the groups cannot be combined, and are too small for systematic analysis singly, a detailed presentation of the characteristics of questionable self-medicators would be more misleading than worthwhile.

However, a few results did emerge with sufficient consistency to be reported. Some demographic comparisons are shown in Table 69, where the questionable self-medicators of these ailments are compared with the sufferers of the same ailment who did not engage in questionable self-medication. It must be remembered that the individual percentages in the table are untrustworthy. Only where a pattern emerges can a conclusion be established with some reliability.

First, it appears that questionable self-medication in these areas is more typical of men than of women, since it

Table 69

Percent of Questionable Self-Medicators and Non-
Self-Medicating Sufferers of the Same Ailments
Having Selected Demographic Characteristics

	<u>Male</u>	<u>Under 30</u>	<u>65 and Over</u>	<u>Under \$5,000</u>	<u>\$12,000 and Over</u>	<u>Less than H.S.</u>	<u>College Grad or More</u>
<u>Asthma</u>							
Questionable	63	54	27	7	16	27	27
Others	43	27	14	34	21	49	15
<u>Allergies</u>							
Questionable	58	46	8	14	25	33	29
Others	34	30	10	21	30	30	17
<u>Hemorrhoids</u>							
Questionable	56	22	22	36	9	43	3
Others	37	15	18	27	23	42	11
<u>Heart trouble</u>							
Questionable	58	16	35	41	22	50	12
Others	45	12	43	46	12	63	4
<u>High blood pressure</u>							
Questionable	43	17	35	47	16	44	11
Others	37	7	34	47	16	58	6
<u>Diabetes</u>							
Questionable	41	8	25	48	14	30	10
Others	45	7	35	32	18	58	10

emerges in every comparison except one in the table. For example, 63 percent of the questionable self-medicators for asthma were male, as compared to 43 percent of the other asthma sufferers.

Second, while the age pattern is not entirely clear, it seems unlikely that susceptibility to this practice is related to advanced age. In only one comparison are people aged 65 and over meaningfully more common among the questionable self-medicators than their counterparts, in two comparisons they are less common, and in the remainder there is no difference. Furthermore, not even the one comparison showing a relationship with old age is trustworthy: when the "cutting point" is changed from 65 to 60, this difference vanishes (and a difference emerges on a different ailment). Furthermore, in every comparison in Table 69 except one, it is very young people who are more inclined to questionable self-medication.

The income pattern is even less consistent, and the only conclusion that seems reasonable is that no relationship with income has been demonstrated.

With education, however, a pattern may exist. In four comparisons the questionable self-medicators included fewer people with little education than the counterparts, with no difference in the other two comparisons. Furthermore, in four comparisons the questionable self-medicators included more people with higher education than the counterparts (although one comparison showed a reversal of this trend). It seems reasonable to suggest that susceptibility in this area may be related to increased education.

Nothing else that was examined produced a pattern of differences consistent enough to support a conclusion about

the distinguishing characteristics of questionable self-medicators. Of particular interest in this regard was the series of questions about the inclination to self-medicate for sore throat, cough, acid stomach, headaches, and skin rash.

Not even here, when two forms of self-medication were being related to one another, was there any acceptable indication that the questionable self-medicators examined in this chapter differed consistently from the non-self-medicating sufferers of the same ailments. In other words, there was no consistent tendency for those who had engaged in questionable self-medication for asthma, allergies, hemorrhoids, heart trouble, high blood pressure, or diabetes to appear more inclined, overall, than the non-self-medicating sufferers of the same ailments toward self-medication for sore throat, cough, acid stomach, headache, and skin rash.

Chapter Nine: ARTHRITIS-RELATED PRACTICES

This study included a considerable concentration upon arthritis, rheumatism, and related diseases, enough so that practices in this area are reported here as a separate section. There are two reasons for this concentration.

First, these diseases, in their more common forms, afflict the elderly more than younger people, and this study has a special interest in the health care and practices of older people.

Second, arthritis type-ailments are known to be a fertile ground for fallacious health practices, involving both "innocent" misconceptions and deliberate, misleading or even fraudulent products and services. There are several aspects of the disease that might account for this prevalence of fallacy. It is a common ailment, affecting many people. It can cause pain and discomfort to the point of being disabling, so its sufferers may sometimes feel literally driven to grasp at any straw that promises help. At the same time, it is not a fatal disease, so there is not as much strain upon the conscience of those who misrepresent their products or services as there might otherwise be. It is a chronic disease that, in most of its forms, is never cured or entirely vanquished, so some sufferers may feel that orthodox medical treatment has too little to offer. Its primary symptom is pain, which is known to be quite susceptible to the "power of suggestion". Finally, the symptoms often undergo many spontaneous temporary remissions, which could easily be credited to whatever "treatment" was being tried at the time.

Whatever the reason, there is considerable testimony that arthritis is a likely area for fallacious practices, some of which are reported below.

The Prevalence and Diagnosis of Arthritis

All respondents were asked, "Have you ever had arthritis, or rheumatism, or any similar ailment?" Twenty percent said they had had arthritis, 5 percent said rheumatism, 4 percent said some other similar disease, and 75 percent said they had had none of the diseases. Thus, one-fourth of the sample indicated they had had one or more of the diseases in this area.

The relationship with age is quite marked: 5 percent of those under 30 said they had any of the diseases, 13 percent of those 30-39, 22 percent of those 40-49, 43 percent of those 50-64, and 51 percent of those 65 and older.

Twenty-one percent of the men and 28 percent of the women said they had had any of the diseases. The difference is not attributable to any tendency for women to live longer, and thus have more time to contract arthritis: within every age category, women were more likely than men to report the ailments; at age 65 and over 39 percent of the men and 59 percent of the women said they had had the disease.

People with less education and lower income were more likely to report the disease, but this finding could

be due to the age effect and the tendency for old people to have had less education and, if beyond retirement age, to have lower incomes.

The next question was the source of the diagnosis of the ailment. The results are shown in Table 70. About four-fifths, or slightly more, of the self-reported sufferers reported that a medical doctor or osteopath had told them they had the ailment. (If only these people were considered to be actual sufferers from the ailments, the prevalence rate in the total sample would diminish from 25 percent to about 20 percent.)

Men were somewhat more likely than women to be relying upon self-diagnosis.

Those who are in the youngest age category (under 30) and those in the upper age categories were least likely to be relying on self-diagnosis. As one possible explanation for this age relationship, it may be that many people in the middle years--30 to 60--accept some stiffness and even occasional pain as a "natural part of growing old", never see a doctor as long as it is mild, and tell themselves it "must be arthritis". Young people would not accept such symptoms as being natural, and might therefore be more inclined to see a doctor for a diagnosis. Old people might also be more inclined to see a doctor, either because they see doctors more often anyway, or because their pains and stiffness would likely be more severe.

Table 70

Percent of Arthritis/Rheumatism Sufferers Reporting
Various Sources of the Diagnosis, by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
Chiropractor	5	5	5	3	2	1	6	6
Medical doctor	79	76	80	89	59	72	81	83
Nurse	1	1	1	-	-	1	1	+
Osteopath	4	5	4	-	8	3	4	5
Pharmacist	+	1	-	-	-	-	1	+
Other	1	1	2	-	-	-	1	3
No one who gives a health service	16	20	14	11	31	25	15	11

+ Means less than 1 percent

No real relationship between the source of the diagnosis and income was apparent. There was a relationship with education, but not a regular one: 16 percent of those with less than a high school education, 22 percent of high school graduates, and 11 percent of college graduates reported their condition had not been diagnosed by any health practitioner.

Sources of Advice and Treatment

All self-reported sufferers of the diseases in question were asked what kinds of health service persons they had gone to for advice and treatment. The results are shown in Table 71.

Differences according to the demographic variables were not very great. The same tendency for those in the low-middle age categories to be less likely to be using physicians as in Table 70 is present, but to a lesser degree. Older sufferers, and those with less education, were more likely to use chiropractors (there were no differences in this respect according to income).

Table 72 shows, for the three most commonly used practitioners, the number of visits to them that the sufferers reported. Users of chiropractors used them with more frequency than users of osteopaths and medical doctors.

Patients of each of the practitioners were asked whether they obtained any relief from the practitioner. For chiropractors, 68 percent said yes, for medical doctors the percentage was also 68, and for osteopaths it was 78 percent. If chiropractors are less competent to

Table 71
Percent of Arthritis/Rheumatism Sufferers Reporting
Various Sources of Advice and Treatment, by Age and Education

	<u>Total</u>	<u>Under 30</u>	<u>30-39</u>	<u>40-49</u>	<u>50-64</u>	<u>65 and Over</u>	<u>Less than High School</u>	<u>High School</u>	<u>College</u>
Chiropractor	9	2	7	4	8	14	10	8	5
Medical doctor	77	76	67	74	81	79	77	73	82
Naturopath	+	-	-	-	+	-	+	-	-
Nurse	1	-	-	4	1	-	+	3	+
Osteopath	6	3	11	6	4	6	6	5	6
Pharmacist	+	-	-	1	+	+	+	1	-
Other	3	2	-	1	4	3	3	3	1
No one	15	19	21	17	14	13	15	16	14

+ Means less than 1 percent

Table 72

Percent of Arthritis/Rheumatism Sufferers Who Had Used
Various Practitioners Reporting Various Frequencies of Use

	<u>Chiropractor</u>	<u>Medical Doctor</u>	<u>Osteopath</u>
Once	16	25	21
Twice	5	14	14
3-4 times	9	17	24
5-9 times	16	14	10
10-24 times	17	16	22
25 or more times	37	14	10

treat arthritis and rheumatism, as most authorities would maintain, it is not reflected in more dissatisfaction among their clients. This finding, of course, says nothing about the real efficacy of chiropractic treatment in these cases: the placebo effect, or "power of suggestion" is known to be strong in the area of pain relief, and the spontaneous remission of arthritis symptoms is known to be common. At any rate, simple direct testimony from lay patients does not establish the effectiveness of a treatment.

Arthritis/Rheumatism "Cures"

The self-reported sufferers of arthritis, rheumatism, or "any similar ailment" were asked the following question: "We're interested in the medicine you have used for your (AILMENT). Some medicine is only supposed to help with pain for a little while. Have you used any medicine that was supposed to do more, to clear up the cause of your (AILMENT) or cure it completely?" Sixteen percent of the sufferers answered "yes" to the question.

Later in the questionnaire the sufferers were asked: "Is there anything you tried that we haven't covered that was supposed to cure your (AILMENT), to clear it up completely?" Eight percent said "yes".

The responses to these two questions overlapped only slightly, so that about 22 percent of the sufferers answered "yes" to one or both of the questions. In other words, about 22 percent of the sufferers reported having used something they believed was supposed to cure

their arthritis. Obviously, many people have never absorbed the message that arthritis is not a curable condition.

Differences according to the demographic variables examined were not very large. Furthermore, the small differences that did exist did not follow the same pattern in the two questions, so it is difficult to conclude that using something believed to be a cure for arthritis is related to sex, age, education or income.

The two different questions, as quoted above, were intended to distinguish between medicines and other treatments. The first question was intended to cover medicines, while the second question was intended to cover other, non-medicinal "cures". However, the distinctions were too subtle for some respondents, who included medicines in their response to the second question. Therefore, any attempt to analyze non-medicinal "cures" would include considerable confusion and error.

Virtually everyone who answered the first question affirmatively, however, did name a medicinal product as the item used. (A very few people named such things as X-ray therapy.) Therefore, there is less reason to question the appropriateness of analyses in this area.

Of those who answered the first question affirmatively, 76 percent said all the medicine in question was "Recommended or prescribed by someone who gives a health service", 16 percent said none was so recommended and prescribed, and 7 percent cited some medicine in one category and some in the other.

Those who said some or all of the medicine came from someone who gives a health service were asked who the health practitioner was: 91 percent said a medical doctor, 5 percent an osteopath, 3 percent a nurse, 2 percent a chiropractor, 1 percent a pharmacist, and 2 percent some other practitioner.

Obviously, a clear majority of the people who thought they had used an arthritis/rheumatism "cure" had received the medicine through professional sources. In fact, about 69 percent of those who thought they had used a "cure" were talking about medicine recommended or prescribed by a medical doctor. (The nature of the analysis does not permit an exact determination of this percentage, but the figure of 69 percent could not be wrong by more than a very few percentage points.)

All those who reported having used a medicinal "cure", whether or not from a health practitioner, were asked what the medicine was. Thirty-five percent mentioned an unknown or unspecified prescription or medicine from a physician, 26 percent cited cortisone, 11 percent mentioned aspirin, Bufferin, Anacin, or Excedrin, 13 percent mentioned other analgesics, 8 percent some sort of ointment or salve, 4 percent some sort of home remedy or preparation, and 28 percent gave responses that could not be coded. That so many responses were uncodeable raises questions about the precision of the other percentages. The uncodeable responses were either uncommon or unfamiliar medicines, or the names were forgotten or garbled by respondents. With more information some of them would presumably have been coded in one or another of the categories, thus changing the percentages for those categories. Regardless of this difficulty, these responses do serve to support the conclusion that a great many people who are confused about "cures" for arthritis/

rheumatism are actually following the medication schedule of a physician. Belief in arthritis "cures", then, is not restricted to those who are following an unorthodox path.

Those who had used a supposed arthritis "cure" obtained through someone who gives a health service were asked if any of that medicine worked, and 79 percent said "yes". Those who had used medicine bought on their own were asked if any of it really cured them, and 10 percent said "yes". It seems very unlikely that all of the discrepancy here is due to a simple difference in the impact of medicines from the two sources. Respondent confusion is a more likely explanation. The two questions were not worded exactly the same, and respondents probably had different things in mind when they answered them.

In fact, it seems very likely that a great many people simply do not successfully distinguish a cure for a condition from relief of its symptoms. When they have a health problem, "getting better" is as far as their thought processes go. For many people, anything coming from a doctor is seen as an attempt to "cure" them. Much of the material from the depth interviews would tend to support this characterization of the way many people think about medicine.

Some Specific Treatment Practices

Self-reported sufferers from arthritis/rheumatism were shown a list of practices and asked if they had ever done them. The practices and the percentages reporting they had followed them are shown in Table 73.

Table 73

Percent of Self-reported Arthritis/Rheumatism
Sufferers Who Reported Following Various Practices, By Age

	<u>Total</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
Changed eating habits or used special foods	9	2	3	5	12	11
Used something to lubricate joints	13	12	11	18	11	13
Used a massager or vibrator	10	6	8	14	9	11
Used any other kind of machine or equipment	7	7	6	7	7	6
Wore anything, such as special clothing, bracelets, or other jewelry	3	2	4	2	3	4
None of these	70	79	76	67	69	68

According to informed opinion, the first two items in the list are fallacious practices that do not offer any genuine relief for arthritis/rheumatism. The next two items, dealing with machines and equipment, fall in an area where fallacious practices frequently occur, though some "machines or equipment" are legitimate: physicians' hospital hydrotherapy, for example. The last item deals with a practice that is fallacious if it involves something other than clothing worn for warmth or simple comfort.

Those who said they used some "other machine or equipment" were asked what it was and the responses were coded as follows: heating pad or heat lamp--48 percent, diathermy--13 percent, Whirlpool bath--12 percent, exercising machine--10 percent, health studio or gym--4 percent, and something other than these--18 percent.

Those who said they wore something were asked what it was, and those responses were coded as follows: special clothing--58 percent, copper wire, bracelet or jewelry--24 percent, brass wire, bracelet, or jewelry--6 percent, and something other than these--13 percent.

Only one meaningful relationship with age seems apparent: older sufferers were more likely than younger ones to have tried changes in their diet.

Table 74 shows the same responses according to education and income. The only strong relationship involving education comes with the use of something to lubricate

Table 74

Percent of Self-reported Arthritis/Rheumatism Sufferers Who Reported
Following Various Practices, by Education and Income

	<u>Total</u>	<u>Less than High School</u>	<u>High School</u>	<u>College</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
Changed eating habits or used special foods	9	10	6	11	6	12	8	11
Used something to "lubricate joints"	13	16	11	6	14	17	7	10
Used a massager or vibrator	10	9	12	11	8	11	11	14
Used any other kind of machine or equipment	7	6	6	9	3	8	7	10
Wore anything, such as special clothing, brace- lets, or other jewelry	3	4	3	2	3	3	3	3
None of these	70	68	70	71	73	66	72	66

the joints*: those with less education were more likely to report this practice. In this case, the relationship with income, while parallel, was not as strong, which might mean that the amount of education is a more fundamental factor in this particular practice.

On the other hand, when machines or equipment are involved, as in the third and fourth items in the list, the relationship with income seems stronger than that with education: upper income people were more likely to report these activities than lower income people. Obviously, the use of machines or devices can be a significant expense, so it may not be surprising to find the relationship with income, nor to find that that relationship is stronger than the one involving income in these instances.

All followers of each of the practices were asked whether "you really believed it would help you" or "you just thought it was worth a try". Following that, they were asked if the product did help them. The results from these two questions are shown in Table 75.

*While the survey did not attempt to code specific substances and products, the depth interviewing and other sources of information indicate that some people believe that oily salves or ointments, or even kerosene, "lubricate the joints".

Table 75

Percent of Followers of Various Arthritis/Rheumatism
Treatment Practices Citing Benefits Expected
and Evaluation of Results

	<u>Changed Diet</u>	<u>Joint Lubricant</u>	<u>Massager or Vibrator</u>	<u>Other Equip- ment</u>	<u>Some- thing Worn</u>
Really believed it would help	67	47	44	67	58
Just thought it was worth a try	33	53	56	33	42
Said it did help	77	75	67	88	74
Said it did not help	7	17	27	9	22
Don't know; maybe	16	8	6	3	4

Depending upon the practice, from one-third to slightly over one-half of the followers reporting doing so more in the spirit of its being worth a try than out of any prior conviction in its efficacy. However, large majorities reported that the practice did, in fact, help them.

The finding that many people thought these practices helped them is in no way a demonstration of the value of the practices. The well-known "placebo effect"--the tendency for people who only think they have received a treatment to feel relief--could easily account for these results, especially since the primary symptom of arthritis, to the sufferer, is pain and discomfort, which is notoriously susceptible to psychic influence. The spontaneous remission of symptoms so typical of arthritis also confuses the issue, since many people undoubtedly ascribe relief to whatever "treatment" they were following when the remission occurred.

The followers of the treatment practices were shown a list of possible influences and were asked which, if any, had anything to do with their practices. The items in the list and the responses are shown in Table 76.

Classification of Arthritis Treatment Practices

The following groups of respondents were singled out for further analysis:

1. Those who had used something they believed was supposed to cure their arthritis/rheumatism that was not recommended by a physician (medical doctor

Table 76

Percent of Followers of Various Arthritis/Rheumatism
Practices Citing Various Influences

	<u>Changed Diet</u>	<u>Joint Lubricant</u>	<u>Massager or Vibrator</u>	<u>Other Equip- ment</u>	<u>Some- thing Worn</u>
Newspaper or magazine advertisements	2	5	9	-	2
TV or radio commercials	1	33	3	-	-
Mail advertising	-	2	2	-	2
Medical columns in newspapers or magazines	5	+	3	-	-
Magazine articles	5	1	3	-	-
Books	5	-	1	-	-
Lectures	-	-	2	-	-
Store displays	-	-	2	-	2
Door-to-door salesmen	-	-	1	1	-
Salesman who called on telephone	-	-	-	-	-
Salesmen at fairs	-	-	-	-	-
Friends	5	23	12	12	30
Relatives	9	19	12	13	16
None of these above	78	36	61	78	49

+ Means less than 1 percent

or osteopath). Four percent of all those reporting they had arthritis/rheumatism met this specification.

2. Those who treated their arthritis/rheumatism with a changed diet or special foods--9 percent of the sufferers.
3. Those who tried "something that was supposed to lubricate your joints"--13 percent of the sufferers.
4. Those who used a massager or vibrator--10 percent of the sufferers.
5. Those who used some other machine or equipment--7 percent of the sufferers.
6. Those who wore copper or brass items to treat their arthritis/rheumatism. Only about 1 percent of the sufferers met this specification--the weighted number of persons was 24: probably no more than about 10 actual respondents.

There was some tendency for these groups to overlap, but it was not very great: 754 respondents accounted for 896 questionable practices that were coded.

Characteristics of Followers of the Practices

The respondents in each of the groups were compared with those arthritis/rheumatism sufferers who did not fall into any of the groups. In other words, the followers of each of the questionable practices were compared with those who had not followed any of the questionable practices considered.

"Cures" from non-physician sources

The specification for this practice included the provision that the supposed "cure" was not something used at the recommendation of a medical doctor or osteopath. In actuality, of course, any use of something believed to cure these diseases represents a faulty belief, regardless of the source.

In fact, the responses of those who said they had used something supposed to cure their ailment, without further reference to the source, were examined, but were found to differ in no real way from those who followed no questionable practices. Thus, the issue of how to deal with these respondents is empirically unimportant: they are undistinguishable from arthritis/rheumatism sufferers in general.

Those whose supposed cure came from some source other than a physician were somewhat distinguishable from those who followed no known questionable practice, however.

The non-physician "cure" users were older: 46 percent were aged 65 or over, as compared with 29 percent of those who used no questionable practices (hereafter called the "other sufferers"). More of them had little education: 51 percent, versus 38 percent of the other sufferers, had an eighth grade education or less; none had finished college, as opposed to 5 percent of the other sufferers. The income difference was similar: 48 percent of the non-physician "cure" users and 41 percent of the other sufferers reported incomes below \$5,000, and another 25 percent and 17 percent, respectively, reported incomes between \$5,000 and \$6,999.

The non-physician "cure" users were somewhat more urban: 58 percent, versus 39 percent of the other sufferers lived in a large city (population 50,000 or more). However, this difference is partially redressed by the fact that 13 percent of the other sufferers and only 3 percent of non-physician "cure" users lived in a suburb of a large city. No other demographic differences seem meaningful.

The non-physician "cure" users evaluated their health as being better than did the other sufferers: 61 percent and 41 percent, respectively, said their health was "much better" or "a little better" than most people their age. However, they reported more worry about their health: 19 percent, versus 11 percent of the other sufferers, said they worry about their health "a great deal of the time" or "quite often"; 19 percent, versus 8 percent, said they worry "a lot more" or "a little more" than most people their age.

While a few differences were obtained among the questionnaire items dealing with attitudes toward the medical

profession, medicine advertising, claims by "doctors", and the like, they can rather plausibly be considered minor or even chance fluctuations, in view of their small number and the fact that some of them seemed contradictory. For example, the non-physician "cure" users were more likely than the other sufferers to agree that "Despite all the scientific advances, doctors used to help their patients more than they do now" (59 percent versus 39 percent), but they were less likely to agree that "The medical profession concentrates too much on science and not enough on people" (36 percent versus 39 percent).

However, on one behavioral item the non-physician "cure" users revealed that they may be more critical of physicians: 33 percent of them, versus 24 percent, said they had ever changed doctors because they were dissatisfied.

The "personality test", described extensively in the appendix, also revealed some differences, as is shown in Table 77 at the end of this chapter. The non-physician "cure" users were lower than the other sufferers on the scale of Belief in Intervention by God; they were higher on the Pessimism scale and, to a lesser degree, the Anomia, Purposelessness, and Fatalistic Thinking scales. (These scales are discussed in detail in the Appendix.) Thus, compared to the other sufferers the non-physician "cure" users may tend to be people who see the world as an unfriendly place, with each person on his own, getting no help from other people, having things turn out badly, and not being able to do much in the face of Fate. It may be that it is a kind of cynicism about the way the world works that leads some of those people into "unorthodox" paths.

Changed diet or special foods

Those who tried to treat their arthritis/rheumatism by changing what they ate or using special foods were older than the other sufferers: 36 percent, versus 29 percent, age 65 or older; 7 percent, versus 23 percent, under age 45. Despite this age difference, their education tended to be somewhat greater: 30 percent, versus 38 percent, with an eighth grade education or less; 9 percent, versus 5 percent, college graduates. No other demographic differences were very impressive.

The "diet changers" reported worrying about their health more than the other sufferers: 22 percent, versus 11 percent, said they worry "a great deal of the time" or "quite often"; 15 percent, versus 9 percent, said they worry "a lot more" or "a little more" than most people their age. Yet, they do not evaluate their health as poorer; in fact, 47 percent of the "diet changers" and 41 percent of the other sufferers said their health was "much better" or "a little better" than most people their age.

More of the "diet changers" reported they had ever changed doctors because they were dissatisfied: 32 percent, versus 24 percent of the other sufferers.

The "diet changers" were more impressed than the other sufferers with certain practices that are usually associated with unethical "doctors". The results are shown in Table 78 at the end of this chapter: larger percentages of the "diet changers" said they would have their confidence increased if they saw an advertisement for the doctor, if he offered a money-back guarantee, if he claimed to have a secret treatment, and if he displayed a typical "diploma mill" certificate.

As is shown in Table 79, the "diet changers" were more impressed than the other sufferers on only one of the advertising claims or techniques that were investigated: a testimonial from a famous person.

The "diet changers" seem less inclined than the other sufferers to general self-medication: when asked how long they would go on using medication that was controlling a sore throat, cough, acid stomach, headaches, and skin rash, before seeing a doctor, the percentages of "diet changers" who said they would see a doctor in three days or less was from six to fifteen percentage points higher than the other sufferers. (Data are presented for the three-day interval because it is typical of many label warnings on the non-prescription products, and because it is at this point that differences between followers of questionable practices and others tended to be greatest.)

Arthritis/rheumatism victims who are "diet changers" tended to be more critical of doctors and the medical profession: 72 percent, versus 80 percent of the other sufferers agreed that "Most doctors put helping their patients above everything else"; 78 percent, versus 61 percent, agreed that "A lot of doctors are only interested in making money"; 80 percent, versus 67 percent, agreed that "There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to"; 71 percent, versus 49 percent, agreed that "The medical profession concentrates too much on science and not enough on people"; 56 percent, versus 39 percent, agreed that "Despite all the scientific advances, doctors used to help their patients more than they do now."

The "diet changers" seem to be more impatient for results

than the other sufferers when they are undergoing treatment: 41 percent, versus 27 percent, agreed that "If a medicine doesn't help you right away, it probably isn't going to do any good at all."

"Joint lubricants"

Those who used "something supposed to lubricate your joints" (see the earlier footnote) were not different in age from the other sufferers. The primary demographic differences were a higher percentage of women--67 percent for "joint lubricators", 59 percent for the other sufferers --and a lower level of education--70 percent, versus 53 percent, with less than a high school education. The income difference paralleled that for education: 74 percent of the "joint lubricators" and 58 percent of the other sufferers had incomes below \$7,000. A regional difference was apparent: 53 percent, versus 39 percent of the other sufferers grew up in the South.

The "joint lubricators" reported more worry about their health: 20 percent, versus 16 percent of the other sufferers said they worry "a great deal of the time" or "quite often"; 16 percent, versus 8 percent, said they worry "a lot more" or "a little more" than most people their age. Yet, the way the two groups evaluated how good their health actually is was not really different.

As Table 78 shows, the "joint lubricators" seemed to be more taken in by two of the practices that are associated with unethical "doctors": advertising, and displaying a "diploma mill" certificate.

On only one of the strategies in medicine advertising that were investigated and shown in Table 79 was there a difference: more "joint lubricators" than other sufferers reported their faith in a medicine would be increased by a testimonial from some famous person.

The "joint lubricators" tended to be more critical of the methods of medical science than the other sufferers: 82 percent, versus 67 percent, agreed that "There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to"; 63 percent, versus 49 percent, agreed that "The medical profession concentrates too much on science and not enough on people"; 55 percent, versus 39 percent, agreed that "Despite all the scientific advances, doctors used to help their patients more than they do now." There was little difference, however, in personal criticism of doctors; for example, about the same percentage of each group agreed that "A lot of doctors are only interested in making money."

The "joint lubricators" seem to be more impatient for results than the other sufferers: 40 percent and 27 percent, respectively, agreed that "If a medicine doesn't help you right away, it probably isn't going to do any good at all."

Massagers or vibrators

Very few demographic differences were obtained between massager users and the other sufferers. The massager users did include somewhat fewer people with very little education: 20 percent and 38 percent, respectively, had an eighth grade education or less. The difference

is obtained only at this low level, however; the percentages who graduated from high school are nearly identical. A similar pattern occurred for income: 19 percent of the massager users and 27 percent of the other sufferers reported incomes below \$3,000, but shifting to an examination of those with incomes below \$7,000 shows percentages of 53 percent and 58 percent, respectively --a less meaningful difference.

The massager users worried more about their health: 19 percent, as compared to 11 percent of the other sufferers said they worry "a great deal of the time" or "quite often"; 11 percent and 8 percent, respectively, said they worry "a lot more" or "a little more" than most people their age. The evaluation of the state of their health, however, was about the same for the two groups.

For two of the items shown in Table 78 there were meaningful differences: if a "doctor" offered a money-back guarantee, and if he displayed a "diploma mill" certificate, more massager users than other sufferers would be favorably impressed.

In Table 79, two of the items show differences: medicine advertising or labels that include a testimonial from a famous person, and a quote from a doctor that the medicine is good, would increase the faith in the medicine of more massager users than other sufferers.

The massager users showed a greater tendency than the other sufferers to trust their own judgment over that

of a physician. When asked if they would use a medicine that seemed to help a friend, even if their doctor said it was worthless, 22 percent of the massager users and 12 percent of the other sufferers said they would. Similarly, when asked if they would go on using a medicine that had seemed to help them, if later told by a doctor it was worthless but harmless, 43 percent of the massager users and 35 percent of the other sufferers said they would.

The massager users revealed that they are more impatient for results than the other sufferers: 41 percent and 27 percent, respectively, agreed that "If a medicine doesn't help you right away, it probably isn't going to do any good at all."

While more massager users than other sufferers agreed that "A lot of doctors are only interested in making money" (74 percent versus 61 percent), there was no meaningful difference on the other items covering attitudes toward the medical profession.

Other machines and equipment

Those who used machines or equipment other than a massager or vibrator are a special case. The data did not permit a separation according to whether the machine or equipment was something used or recommended by a physician, and in general the category may be too diverse to represent a questionable treatment practice.

The analysis tends to support the doubt that this

classification isolated a questionable treatment practice. For example, Table 79 shows that while most of the other groups examined were more susceptible than the other sufferers to one or two of the medicine advertising strategies, the equipment users were less taken in than the other sufferers on several of the items.

Similarly, Table 78 shows a tendency for most of the groups to be impressed by some unethical practices of "doctors", while the equipment users were less impressed than the other sufferers by several of these.

In the same way, a tendency to be critical of the medical profession was true of most of the classification groups examined, but the equipment users were less critical than the other sufferers on several of these.

In Table 77, and on many of the other items that were examined, the ways in which the equipment users differed from the other sufferers was not at all the same pattern as emerged from the other classification groups.

In short, there is so much reason to doubt that the equipment users did, in fact, always engage in a questionable treatment practice that there seems to be no value in a detailed presentation of the analysis in this case.

Brass or copper jewelry

The brass and copper jewelry users also present an

analytic difficulty. In this case there is no doubt about the questionable nature of this ancient practice*, but the severely limited number of respondents is a problem. As was indicated earlier, the weighted sample so classified numbered only 24, which represents about 10 individuals.

Percentages derived from such a small group are necessarily very unreliable. However, two considerations argue against foregoing an analysis. First, this practice is of particular interest, since it has been specifically and decisively condemned by physicians, but it appears to be growing. Second, while the number of respondents is very small, their differences from the other sufferers is so often very large that some confidence seems justified--especially since the differences tend to be in the same direction as those obtained with the other classification groups.

However, in the results to be presented below, it must be understood that it is only the nature of the difference between the jewelry/gadget users and the other sufferers that can be accepted, and even there generalization must be very cautious and tentative. The size of

*Belief that body contact with dissimilar metals has therapeutic value originated with early developments in the science of electricity. Examples include Perkins' "metallic tractors" of the 18th century, and the use of copper and zinc heel plates beginning in the past century.

the differences, since they depend upon the absolute value of the percentages, cannot be accepted, even conditionally, with so few respondents.

The jewelry/gadget users included more women than the other sufferers: 75 percent versus 59 percent, respectively. They were older: 54 percent were age 65 or older, as compared with 29 percent of the other sufferers. Their education was lower: none of them had gone beyond high school, as compared with 20 percent of the other sufferers who had done so. Fifty-five percent of the jewelry users and only 27 percent of the other sufferers reported incomes under \$3,000.

Fewer of the jewelry users lived in cities: 25 percent, versus 55 percent of the other sufferers, lived in cities of population 10,000 or more. However, this difference is reduced if suburbs of large cities are added in: 25 percent of the jewelry users and 13 percent of the other sufferers lived in suburbs. (The lack of any difference when origin, rather than current residence, is examined casts some doubt on these findings.)

More jewelry users grew up in the North Central region of the country: 42 percent, versus 24 percent of the other sufferers. (See appended questionnaire, item 218, for a definition of this region.)

The jewelry users evaluated their health as being better than the other sufferers: 63 percent and 41 percent, respectively, said their health was "much better" or "a little better" than most people their age. Yet, they reported worrying about their health more: 29 percent, versus 11 percent of the other sufferers said

they worry "a great deal of the time" or "quite often"; 17 percent and 8 percent said they worry "a lot more" or "a little more" than other people their age.

Forty-six percent of the jewelry users, and only 24 percent of the other sufferers reported they had ever changed doctors because of dissatisfaction.

Table 78 shows that on three of the items, more of the jewelry users than the other sufferers were impressed by unethical practices of "doctors" but the difference is reversed on another of the items in the table, which underlines the caution with which these results must be viewed.

Table 79 shows that testimonials in medicine advertising seemed to impress more jewelry users than other sufferers.

Thirty-three percent of the jewelry users, as compared to only 12 percent of the other sufferers said they would try a medicine that a friend with the same problem said had helped him, even if a doctor said the medicine was worthless. Similarly, 42 percent, versus 35 percent of the other sufferers said they would go on using a medicine that had seemed to help them, even after a doctor told them it was worthless, but harmless.

The jewelry users seemed to be more critical of the medical profession than the other sufferers. The largest difference was with the statement "A lot of doctors are only interested in making money": 92 percent of the jewelry users and 61 percent of the other sufferers

agreed with the statement. Differences on the other items that criticize the medical profession (quoted above in the analyses of the other classification groups) were smaller.

Table 77 shows that the jewelry users scored higher than the other sufferers on the scales for Anomia and Insecurity. (The other differences do not seem large enough to focus upon, even tentatively, with so few respondents involved.) It may be, therefore, that the jewelry users tend toward the same dim view of the world as some of the other classification groups.

Table 77

Percent with Average Item Scores in the Agreement and Disagreement Range for Six "Personality" traits, by Arthritis/Rheumatism Treatment Classification

	Users of:						
	<u>Non-Phys- ician "Cures"</u>	<u>Changed Diet</u>	<u>Joint Lubri- cants</u>	<u>Mas- sager or Vibra- tor</u>	<u>Other Equip- ment</u>	<u>Copper or Brass Jewelry</u>	<u>None of These</u>
<u>Purposelessness</u>							
High score range	65	64	58	61	60	62	57
Low score range	3	1	5	6	2	-	6
<u>Anomia</u>							
High score range	34	28	23	28	8	62	23
Low score range	23	21	18	17	22	-	28
<u>Fatalistic Thinking</u>							
High score range	38	24	35	27	14	29	30
Low score range	16	22	14	17	26	10	19
<u>Belief in Intervention by God</u>							
High score range	64	71	78	76	67	76	75
Low score range	20	7	6	5	4	24	4
<u>Pessimism</u>							
High score range	22	13	13	11	2	24	7
Low score range	21	33	33	48	51	43	39
<u>Insecurity</u>							
High score range	7	4	7	10	7	33	7
Low score range	51	41	40	40	39	38	43

Table 78

Percent Saying Various Practices by a Doctor Would Give Them "More Confidence," by Arthritis/Rheumatism Treatment Classification

	Users of:						
	<u>Non-Physician "Cures"</u>	<u>Changed Diet</u>	<u>Joint Lubricants</u>	<u>Mas-sager or Vibra-tor</u>	<u>Other Equip-ment</u>	<u>Copper or Brass Jewelry</u>	<u>None of These</u>
You saw an advertisement for him in a newspaper	1	11	8	4	1	8	2
He promised or guaranteed to help you or give your money back	15	21	9	18	2	25	10
He told you that he could help you, but no one else could	5	7	9	7	2	-	7
You learned he had some secret or special treatments that no one else had	17	14	9	6	2	33	7
He had a diploma on the wall that said "Doctor of Health Scientology"	6	16	18	15	15	4	6

Table 79

Percent Saying Various Advertising or Label Claims Would
Give Them "More Faith" in a Medicine

	Users of:						
	<u>Non-Phys- ician "Cures"</u>	<u>Changed Diet</u>	<u>Joint Lubri- cants</u>	<u>Mas- sager or Vibra- tor</u>	<u>Other Equip- ment</u>	<u>Copper or Brass Jewelry</u>	<u>None of These</u>
The medicine is supposed to help many conditions or diseases, not just one	3	10	15	13	4	21	17
Some famous person testifies that he was helped by the medicine	15	41	27	23	12	33	14
Many ordinary people testify that they were helped by the medicine	36	42	43	42	28	63	41
A doctor is quoted as saying the medicine is good	53	63	57	75	59	58	57
The medicine not only relieves a condition, it cures it permanently	37	30	35	37	40	25	31
You can get a doctor's diagnosis by mail	-	2	6	3	2	4	4
The medicine is brand new	-	17	9	17	10	-	13

Chapter Ten: CANCER-RELATED PRACTICES

Although cancer is a major cause of death in the United States, and is a major field for exploitation of unproven or fraudulent treatment, it is difficult to obtain facts about cancer victims from such a study as this. Since a household survey necessarily excludes hospitalized persons (and those who have died, of course), the number of cancer victims available for interview is limited.

The Incidence and Diagnosis of Cancer

Two percent of the total sample said they had ever had cancer. The incidence was related to age, increasing from 1 percent of those under 30 to 5 percent of those 65 and older. Sex, education, and income did not reveal meaningful differences.

Another 4½ percent reported that they had something to do with "arranging for the treatment or making decisions" in the case of a relative with cancer. (The relatives were most often mother, father, husband, or wife.)

Thus, a total of about 6 percent of the sample reported having been involved with a cancer case.

The sources of diagnosis are shown in Table 80. Obviously, the number of people who reported cancer that had not been diagnosed by a physician is very small--at most, under 2 percent of all those reporting having been involved with cancer. No worthwhile differences according to sex, age, education or income were apparent.

Table 80

Percent Reporting Various Sources of Diagnosis of
Cancer, Among Those Who Reported
Having Been Involved in a Case

Chiropractor	1
Homeopath	-
Medical doctor	98
Naturopath	1
Nurse	2
Osteopath	2
Pharmacist	-
Other person who gives a health service	+
No one who gives a health service	+

+ Means less than 1 percent

The Treatment of Cancer

All those who reported having been involved with cancer were asked what kinds of health-service persons were used for advice or treatment. The results are shown in Table 81. Again, the number who did not cite a physician is very small. In fact, it was actually one respondent (unweighted) each who had gone to a homeopath, a pharmacist, and some other person giving a health service. The respondent who cited a homeopath reported two visits, and also reported that his treatment had been helpful. The respondent who cited "some other person" reported one visit, and also reported the treatment was helpful. One of these respondents had less than a high school education, and the other had graduated from college.

No meaningful demographic relationships could be expected with such near unanimity among the respondents.

One percent of those involved with cancer reported that medicine was used that was bought without a recommendation or prescription from someone offering a health service. Actually, only two respondents (unweighted) gave this response, and only one of them said the medicine was "supposed to do more than help with pain for a little while, it was supposed to clear up the cause of the cancer or cure it". This respondent said that "TV or radio commercials" had something to do with the use of the medicine, that he "really believed" in the medicine (as opposed to "just hoping it would help"), and he also reported that it did cure the cancer.

Six percent of those involved with cancer reported that

Table 81

Percent Reporting Various Sources of Advice or Treatment
for Cancer, Among Those Who Reported Having
Been Involved in a Case

Chiropractor	-
Homeopath	1
Medical doctor	98
Naturopath	-
Nurse	5
Osteopath	2
Pharmacist	1
Other person who gives a health service +	

+ Means less than 1 percent

there was a "change in eating habits or use of special food that was supposed to cure the cancer". (This probably represents about 15 unweighted respondents.) Five percent of those who reported a diet change (one unweighted respondent) said that "magazine articles" had something to do with it; the remainder said that none of the items in the list of non-medical sources that was shown them had anything to do with the practice. Sixty percent of those reporting this practice said it had helped.

Two percent of those involved with cancer said there was use of a machine that "was not part of the treatment of one of the health service persons" used. (This probably represents four actual, unweighted, respondents.) Of these, 73 percent said that it helped the cancer.

One percent of those involved with cancer said that there was something done that was "not covered" in the questions summarized above. This was actually two unweighted respondents, one of whom said it was radioactive therapy that was used.

Classification of Cancer Treatment Practices

Statistical analysis of those involved in questionable cancer treatment practices is obviously not feasible. Assuming the most liberal definitions of a questionable practice, and assuming no overlap among the various practices, no more than about 25 actual, unweighted respondents would be available for analysis. Even this number would mix persons who had the cancer themselves with those who were reporting on a relative, and it

would mix such conceptually dissimilar practices as using a non-physician practitioner and a change in eating habits. Further, it would almost certainly include some people whose practice was not actually questionable, such as changing one's diet because of a stomach cancer.

It comes as no surprise that too few cases of questionable practices in the cancer area were turned up for analysis. The only cancer victims that can be interviewed in a household survey are those who have recovered from the disease; omitted are those people who have died, of course, and also omitted are those who are currently hospitalized or invalidated with the disease.

Opinions about Controversial Cancer "Cures"

In a simulation of the kind of "cancer cure" controversies that have sometimes arisen, respondents were asked:

We would like your opinion about something that sometimes happens. Suppose somebody comes up with a brand new medicine for cancer. Most scientists and doctors say it is worthless -- based on their analysis of and experience with it, there is no way it can cure cancer. But a few doctors use it, and they have patients who say it actually cured their cancer and saved their lives.

- a. Who is most likely right:
The ones who say it is worthless, or
The people who say it cured them?
- b. Do you think the sale of the medicine should be stopped by law?

A bare majority -- 58 percent -- of the sample sided with the experts against the claimed cure, 24 percent sided with the people who said they were cured, and 18 percent said they did not know.

Responses did not vary to any meaningful extent according to sex or age. Those with more education were most likely to side with the experts against the "cure" -- 51 percent of those with less than a high school education did so, as compared to 58 percent of those whose education stopped with high school graduation, and 68 percent of those with education beyond high school. (The pattern for income is quite similar, almost certainly as a result of the more fundamental education difference.)

Only 45 percent of the sample said the sale of the medicine should be stopped by law, 37 percent said it should not, and 17 percent said they did not know. Men were more likely than women to oppose a ban (42 percent versus 33 percent) and young people were more likely to oppose a ban than older ones (48 percent of those under 30, 38 percent of those 30 to 39, 35 percent of those 40-49, 33 percent of those 50 to 64, and 28 percent of those 65 and older). While there was some tendency for those with higher education to be more in favor of a ban, the differences were not marked.

It appears that a very large portion of the public is not convinced by expert testimony against a claimed cancer cure, as long as there is anyone to insist that, despite "theoretical" arguments, it did, in fact, cure them. The depth interviews provided a clue for interpreting this finding: many people believe that individual differences in response to medicine are so great that something can work for one person that would not work for anyone else, and in the absence of any reason that the experts can understand. They appear not to be aware of the danger of reliance on unproven remedies, particularly for cancer.

Chapter Eleven: HEALTH PRACTITIONERS USED

Incidence

Respondents who reported various ailments--arthritis, asthma, heart trouble, etc.--were asked what "people who give a health service" they had consulted for advice and treatment. Much of this data has been reported in preceding chapters.

Near the end of the interview, all respondents were asked, for ailments not covered elsewhere (arthritis, rheumatism, cancer, asthma, allergies, heart trouble, high blood pressure, diabetes, hemorrhoids), what kinds of health practitioners they had consulted. Chiropractors, homeopaths, naturopaths, and osteopaths were covered specifically.

These responses were combined with those from the earlier questions to produce what should be a complete accounting of the use of these practitioners. The results are shown in Tables 82 and 83.*

*To check the possibility that respondents would become confused by the names and erroneously claim to have gone to one of these practitioners, the name "vitropath" was made up and included in all the questions. However, no one claimed to have gone to a vitropath, which strengthens confidence in the results obtained.

Table 82

Percent Reporting Ever Having Used Various Practitioners
for Any Condition, by Sex and Age

	<u>Total</u>	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 65</u>	<u>65 and Over</u>
Chiropractor	21	25	18	10	17	23	31	29
Homeopath	+	+	1	+	+	+	1	2
Naturopath	1	1	1	+	+	1	1	1
Osteopath	12	12	12	6	13	14	16	14
Other person who is not a Medical Doctor	3	3	2	2	1	3	3	3

+ Means less than one percent

Table 83

Percent Reporting Ever Having Used Various Practitioners
for Any Condition, by Education and Income

	<u>Total</u>	<u>Less than H.S.</u>	<u>High School</u>	<u>Col- lege</u>	<u>Under \$3,000</u>	<u>\$3,000- \$6,999</u>	<u>\$7,000- \$11,999</u>	<u>\$12,000 and Over</u>
Chiropractor	21	23	23	20	19	19	24	22
Homeopath	+	+	+	1	1	1	+	1
Naturopath	1	1	+	1	+	1	1	1
Osteopath	12	11	12	15	13	10	10	19
Other person who is not a Medical Doctor	3	3	2	3	4	2	3	3

+ Means less than one percent

The relationship with age shown in Table 82 should not be interpreted as indicating that older people are more likely than younger ones to seek out practitioners other than M.D.'s. Older people, simply by having lived longer, have had more time to develop health problems and more time to encounter any sort of practitioner, so they have undoubtedly seen more medical doctors as well.

No real relationship with education or income is apparent, as shown in Table 83, and that is a finding worthy of note.

The assessment of the value of chiropractic treatment is seen by some people as depending upon the condition being treated. Each respondent who said, in response to the question that was quoted at the beginning of this chapter, that he had ever gone to a chiropractor was asked what health conditions were involved. The responses were coded, and the results are shown in Table 84.

Table 84

Percent of Those Reporting Having Used
a Chiropractor for Conditions "Not Elsewhere Covered"
Who Reported Various Health Conditions
as the Reason

Back and neck	79
Other muscular sprain, spasm, stiffness; other joint problem	15
Headache	3
Other non-skeletal or non-muscular conditions	6
To relax nerves or tension	3
All other conditions	4

The percentages shown in the table do not purport to cover all the uses of a chiropractor, since the question specifically asked about cases "we haven't covered elsewhere". However, this discrepancy is not very large. Twenty percent of the sample said they had used a chiropractor in response to the question quoted, and when the "cases covered elsewhere" were added in, it was 21 percent. Obviously, either not many people used chiropractors for those "cases covered elsewhere" (as was, in fact, shown in some of the earlier chapters of this report), or most of those who did use chiropractors for those cases not covered elsewhere also used them for the reasons in Table 8A.

Classification of Practitioner Usage

The following groups of respondents were singled out for further analysis:

1. Those who reported anywhere in the questionnaire that they had gone to a homeopath. Just under one-half of one percent of the total weighted sample was so classified--probably no more than 15 or 20 actual un-weighted respondents. Obviously, percentages derived from breaking such a group down further cannot be highly reliable, so the analysis and interpretation with this group must be cautious.

2. Those who reported anywhere in the questionnaire that they had gone to a naturopath. With only just over one-half of one percent of the total weighted sample, this group is only very slightly larger than the homeopath users, and the same cautions apply.
3. Those who reported anywhere in the questionnaire that they had gone to a chiropractor for any problem: about 21 percent of the total sample.
4. Those chiropractor patients whose use was restricted to problems of the back or neck, or other muscular or joint problems: about 74 percent of all chiropractor users, 16 percent of the total sample.
5. Those chiropractor patients whose use was not restricted to the problems noted above: about 26 percent of all chiropractor users, 6 percent of the total sample.
6. A combination of those categories listed as 1, 2, and 5 above. However, this category was much less useful than had been hoped, because the very small numbers of respondents in categories 1 and 2 mean that this category is not meaningfully different from category 5.

Characteristics of Users of Health Practitioners

Homeopath and naturopath users

Just under one-half of one percent of the sample reported ever having gone to a homeopath, and just over one-half of one percent reported ever having gone to a naturopath. The number of respondents available for further tabulation in each case is so small, as to affect the reliability of the tabulations.

The small size of the groups is the main reason for combining them. The training and orientation of homeopaths and naturopaths is so different that they cannot be assumed to attract similar people. Thus, although they are presented together in this section for convenience, they must be viewed separately. In view of the small numbers in each group, the findings resulting from their examination must be regarded as limited.

Table 85 shows the demographic characteristics on which the homeopath and naturopath users differed from the total sample. A large age difference is apparent in both cases: homeopath and naturopath users are considerably older than the total sample. This difference is so important that it should be taken into account when examining other characteristics. Otherwise, when the homeopath or naturopath users are found to differ from the total sample on some characteristic, it may be simply because they are older, and have nothing to do with whatever factors incline them toward homeopaths or naturopaths.

The median age of both the homeopath and naturopath users is within the bracket 50 to 64. Comparing the homeopath and the naturopath users not only to the total sample, but also to that portion of the total sample that is aged 50 to 64, provides a control for age in the comparisons. The control may not be perfect, but if the homeopath or the naturopath users differ from the total sample aged 50 to 64, the chances are great that the difference is not due to age patterns alone.

Thus, Table 85 shows that the homeopath and naturopath users are both more likely to be female than the total sample. Since the table also shows the same difference occurs when the comparison is with those in the total sample aged 50 to 64, the sex difference is almost certainly not due merely to age patterns.

The evidence on education and income does not appear conclusive. A large number of homeopath users reported education beyond high school, but the number reporting at the other extreme was not very different from the comparison groups. With income, the homeopath users reported both more low incomes and more high incomes than the comparison groups. The naturopath users were not very different for any of the comparisons. A negative conclusion, at least, does seem tenable: there is no evidence that use of homeopaths or naturopaths is related to low income or education.

Table 85

Percent of Homeopath and Naturopath Users,
by Selected Demographic Characteristics

	<u>Total</u> <u>Sample</u>	<u>Total</u> <u>Sample</u> <u>Aged 50-64</u>	<u>Homeopath</u> <u>Users</u>	<u>Naturopath</u> <u>Users</u>
Age 34 or younger	35	-	14	2
Age 65 or older	15	-	46	30
Male	47	48	18	37
Eighth grade education or less	22	36	26	28
Education beyond high school	27	18	42	30
Income under \$5,000	28	28	42	27
Income \$12,000 and over	21	19	30	17

The users of homeopaths and naturopaths reported having better health than the comparison groups: 34 and 32 percent, respectively, said their health was "much better than most people their age", as compared to 22 percent of the total sample and 26 percent of the total sample aged 50 to 64. The naturopath users also reported less worrying about their health: two percent said they worry "a lot" or "a little" more than other people their age, as compared to 7 percent of the total sample aged 50 to 64. Both groups seem to be choosier about their doctors: 28 percent of the homeopath users and 43 percent of the naturopath users reported they had ever changed doctors because of dissatisfaction, as compared to 20 percent of the total sample and 18 percent of the total sample aged 50 to 64.

Table 86 shows the responses of homeopath and naturopath users to the question dealing with practices of "doctors". The homeopath users were, if anything, less susceptible to these doubtful practices and claims than were the comparison groups, and the pattern for naturopath users is not very consistent.

The participants were asked if they had ever gone to anyone who had done some of these things. The only differences worthy of note were for the naturopath users. While just under one percent of the total sample, and one-half percent or less of the total sample aged 50 to 64, said they had ever gone to anyone with a secret or special treatment, or to anyone who said he, but only he, could help them, 15 percent of the naturopath users reported the former, and 12 percent the latter.

Table 86

Percent of Homeopath and Naturopath Users
Reporting Various Practices by a "Doctor"
Would Give Them "More Confidence"

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Homeopath Users</u>	<u>Naturopath Users</u>
You saw an advertisement for him in a newspaper	14	6	-	-
He promised or guaranteed to help you or give you money back	12	14	-	20
He told you that he could help you, but no one else could	6	8	4	13
You learned he had some secret or special treatments that no one else had	9	11	-	-
He had a diploma on the way that said "Doctor of Health Scientology"	9	9	12	13

Table 87

Percent of Homeopath and Naturopath Users
Reporting Various Medicine Advertising or
Labelling Claims Would Give Them "More Faith"

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Homeopath Users</u>	<u>Naturopath Users</u>
Supposed to help many conditions or diseases, not just one	19	17	30	17
Some famous person testifies he was helped	23	24	22	43
Many ordinary people testify they were helped	41	38	48	52
A doctor is quoted saying medicine is good	58	57	66	53
Not only relieves problem, cures it permanently	33	29	36	25
Doctor's diagnosis by mail available	5	4	6	12
Brand new	11	11	2	2

Table 87 shows the responses to the question on medicine advertising or labelling. The differences are not highly consistent, but there does seem to be a tendency for both the homeopath and the naturopath users to be more impressed than the total sample with these practices and claims.

When asked if they would try a medicine recommended by a friend as having helped him but called worthless by a doctor, and whether they would go on using a medicine they thought had been helping them but were told later by a doctor was worthless, neither homeopath nor naturopath users were very different from the total sample. In the "cancer cure" controversy (see Appendix, Question 206) however, there were differences. While 24 percent of both the total sample and the total sample aged 50 to 64 sided against authority and with the patients who claimed they had been cured, fewer homeopath users (14 percent) and more naturopath users (37 percent) did so.

When asked to choose between the propositions that good health is a "natural thing" and that a person must "work at it constantly" to have good health, 40 percent of the total sample and of the total sample aged 50 to 64 said it seemed more true to think of it as natural, as compared to only 13 percent of the naturopath users.

Table 88 shows the percentages who agreed, either "very much" or "a little" with a series of opinion statements. Several of the statements deal with physicians and the medical profession. There does not appear to be much of a tendency for either homeopath or naturopath users to be especially critical of doctors or the profession, when all of these items are examined. Perhaps the two most interesting differences in the table deal with water fluoridation and the influence of diet on health. The homeopath users, especially, are much more opposed to water fluoridation than the total sample. Both groups judged diet as a much more important cause of bad health than the total sample.

Table 88

Percent of Homeopath and Naturopath Users
Agreeing with Opinion Items

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Homeopath Users</u>	<u>Naturopath Users</u>
For most people who have had health, a major reason is they don't eat right	74	75	90	93
Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them	38	35	30	30
Most doctors put helping their patients above everything else	78	83	80	82
A lot of doctors are only interested in making money	61	60	70	65
If a medicine doesn't help you right away, it probably isn't going to do any good at all	30	34	22	32
There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	62	68	68	93
Most of the things that people buy in drugstores to treat themselves are practically worthless	47	53	42	25
The medical profession concentrates too much on science and not enough on people	45	51	58	55
Despite all the scientific advances, doctors used to help their patients more than they do now	39	45	38	32
Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	22	25	6	22

(Continued)

Table 88 (continued)

Percent of Homeopath and Naturopath Users
Agreeing with Opinion Items

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Homeopath Users</u>	<u>Naturopath Users</u>
The government doesn't have any business deciding what kinds of medicines are legal	17	20	16	13
Community water supplies should be fluoridated	78	74	34	63
The law should require that children must be vaccinated or inoculated against contagious diseases	95	95	94	83
It is nearly impossible to know in advance whether or not a medicine will help you because what works for one person won't work for another	90	92	84	100
I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	66	70	44	57

Table 89

Percent of Homeopath and Naturopath Users
with Average Item Scores in the High
and Low Range for Six "Personality Traits"

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Homeopath Users</u>	<u>Naturopath Users</u>
<u>Purposelessness</u>				
High score range	60	54	64	70
Low score range	4	6	-	-
<u>Anomia</u>				
High score range	19	18	30	39
Low score range	30	28	46	21
<u>Fatalistic Thinking</u>				
High score range	23	25	12	44
Low score range	27	23	40	18
<u>Belief in Intervention by God</u>				
High score range	69	68	54	77
Low score range	6	4	4	-
<u>Pessimism</u>				
High score range	5	5	6	4
Low score range	39	37	43	56
<u>Insecurity</u>				
High score range	5	5	2	9
Low score range	45	40	50	60

The results of the "personality test" are shown in Table 89. (The items in the "test" and the derivation of the percentages shown in the table are listed and explained in the Appendix. Briefly, the higher the percentage shown in the "high score range" and the lower the percentage in the "low score range", the more the trait is characteristic of the group.)

The naturopath users are more clearly discriminated by their "personality scores" than the homeopath users. When compared with the total sample, or the total sample aged 50 to 64, the naturopath users seemed to be higher on Purposelessness and Fatalistic Thinking, but somewhat lower on Pessimism. This pattern suggests a personality that sees the individual as rather helpless as the world acts upon him, but still tries to remain cheerful and optimistic in the face of adversity. The largest difference in the case of the homeopath users was for Fatalistic Thinking, where they were lower than the total sample, instead of higher, as was the case for naturopath users.

Chiropractor users

Among chiropractor patients, those whose use was restricted to problems of the back or neck, or other muscular or joint problems, were compared with those whose use was not so restricted. The major differences that were apparent were in the area of demographic characteristics: the two groups of chiropractor users were very similar in the areas of attitudes and beliefs that have been used to distinguish other groups in this report.

The demographic comparisons are shown in Table 90. Those who used chiropractors for conditions other than back, neck, joint, or muscular problems, when compared with chiropractor users whose use was so restricted, were older, less likely to be male, and had less education and lower incomes.

Table 90

Percent of Chiropractor Users, by Classification,
with Selected Demographic Characteristics

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Chiropractor Users</u>		
			<u>All Users</u>	<u>Back, Neck, Joint, or Muscular Problems Only</u>	<u>Other Conditions</u>
Age 34 or younger	35	-	19	20	13
Age 65 or older	15	-	21	17	32
Male	47	48	56	62	40
Eighth grade education or less	22	36	22	21	29
Education beyond high school	27	18	26	28	20
Income under \$5,000	28	28	24	20	36
Income \$12,000 and over	21	19	22	23	19

The total group of chiropractor users was older than the total sample, and included somewhat more males, but was not different with regard to education and income. The total of chiropractor users had more education, and slightly higher incomes, than the portion of the total sample aged 50 to 64, which is an appropriate comparison group since the median age of the chiropractor users fell in this category.

Summarizing, chiropractor patients tend to be older people, and that is especially true of those who went to chiropractors for reasons other than joint or muscle problems of the back or elsewhere. The total group of users has a high proportion of males, and that is due to the high incidence of males among those using chiropractors for joint or muscle problems: those using chiropractors for other conditions actually had a low incidence of males. The chiropractor users had about the same education and income as the total sample, and more than the total sample aged 50 to 64. Those using chiropractors for conditions other than joint or muscle problems had lower education than the total sample, but still had more than the 50 to 64 year olds; they had lower incomes than both comparison groups.

Apart from the characteristics in Table 90, differences related to chiropractor usage were few. Those who had ever gone to chiropractors were more likely to have ever changed doctors because of dissatisfaction: 26 percent, versus 20 percent of the total sample and 18 percent of the total sample aged 50-64. There was no difference in this respect between the users of chiropractors for joint and muscle problems only, and the users for other conditions.

When asked if they would try a medicine that a friend said had helped him, but that their doctor said was worthless, 16 percent of the chiropractor users said they would, as compared to 12 percent of the total sample and 11 percent of the total sample aged 50 to 64. When asked if they would continue using a medicine that they thought had helped them, after a doctor said it was harmless but useless, 44 percent of the chiropractor users, as compared to 36 percent of the total sample and 28 percent of the total sample aged 50 to 64, said they would. For one of these questions it was those who used chiropractors for joint or muscle problems only who were especially likely to disregard the doctor's opinion, while for the other question it was those who used chiropractors for other conditions who did so, and in neither case was the difference very great, so there is no meaningful relationship between these items and the reasons for using a chiropractor.

The only other differences worthy of note are shown in Table 91. Chiropractor users, and especially those who were treated for something other than joint or muscle problems, were more likely to report having gone to a health practitioner who had made claims or engaged in practices that the medical profession at large considers unethical.

There was no difference among the groups shown in Table 91 on the parallel question, asked of everyone, of what effect these practices would have on their confidence in a "doctor". That is, the groups did not seem to differ on their awareness of the questionable nature of these practices, but, as shown in Table 91, more chiropractor users had actually gone to practitioners who followed them.

None of the other items examined, including the "personality scales" meaningfully distinguished chiropractor patients from the total sample.

Table 91

**Percent of Chiropractor Users, by Classification,
Who Had Ever Gone to a Health Practitioner
Who Followed Specified Practices**

	<u>Total Sample</u>	<u>Total Sample Aged 50-64</u>	<u>Chiropractor Users</u>		
			<u>All Users</u>	<u>Back, Neck, Joint, or Muscular Problems Only</u>	<u>Other Conditions</u>
Anyone with a secret or special treatment	0.8	0.5	2.3	1.8	3.8
Anyone who advertised his services	1.3	0.8	2.4	2.0	3.6
Anyone who said he, but only he, could help	0.6	0.3	1.3	1.1	1.8
Anyone who promised or guaranteed to help, or refund money	0.3	0.2	0.6	0.8	0.2

Chapter Twelve: HEARING PROBLEMS AND PRACTICES

Incidence

Fourteen percent of the total sample answered affirmatively the question: "Has your hearing ever been a problem for you?" Seventeen percent of the men and 12 percent of the women so answered, and there is a relationship with age that would be expected: under 30--9 percent, 30 to 39--10 percent, 40 to 49--13 percent, 50 to 64--16 percent, 65 and older--27 percent. Those with little education and very low incomes were more likely to say they had experienced hearing trouble; this finding is easily accounted for by the age difference.

Medicine for Hearing

Of those who reported their hearing had been a problem, 15 percent reported having bought medicine for their hearing. It was non-prescription medicine in the case of 29 percent of these, or 4 percent of those with hearing problems. (All of these respondents reported the medicine was not simply for wax removal. Thus, about one-half of one percent of the total sample had bought non-prescription medicine supposed to improve their hearing. No reliable or meaningful relationships with age, education, or income were apparent.

Of those who bought the non-prescription medicine, three-fourths "really believed it would help", as opposed to one-fourth who "just thought it was worth a try".

Hearing Aids

Thirteen percent of those with hearing problems said they had bought a hearing aid. Of these, 55 percent said they had bought an aid recommended by a medical doctor, and 53 percent said they had bought one not recommended by a medical doctor (a few people, therefore, had bought aids from both sources). No determination of the specific nature of the non-medical sources was undertaken.

Eighty-two percent of the respondents who had bought hearing aids recommended by a medical doctor said they helped their hearing, as compared to 94 percent of those who bought hearing aids not recommended by a medical doctor; 49 percent of those purchasing through a doctor said they were satisfied with the comfort, as compared to 86 percent of those not purchasing through a doctor.

While this testimony might suggest a high degree of satisfaction with hearing aids purchased through non-medical sources, there is other evidence, perhaps more objective, to the contrary. Over half of those who purchased through a doctor had bought only one hearing aid; 83 percent had bought only one or two. In contrast, only 29 percent of the other purchasers had bought as few as two. The latter percentage is not highly reliable, due to the small number of respondents, but a large difference between the two groups was seen to be reasonably established.

Classification of Practices

Two groups were to be singled out for further analysis.

Those who had bought a non-prescription medicine supposed to improve their hearing were about one-half of one percent of the total sample, and those who had bought a hearing aid not recommended by a medical doctor were about one percent of the total sample.

Characteristics of Followers of Hearing Improvement Practices

Non-prescription medicine

The number of respondents who had used a non-prescription medicine supposed to improve their hearing was quite small, and tabulations based on this group cannot be highly reliable.

Nevertheless, the pattern of characteristics of this group is interesting enough to warrant presentation, if it is remembered that individual statistics are not reliable enough for quotation or direct generalization to the population.

First, the non-prescription hearing medicine users did not appear to differ very much from the total sample on age, which means that, among people who claim to have hearing problems, they are relatively young.

They had less education than the total sample--

55 percent versus 41 percent with less than a high school education, 14 percent versus 27 percent with education beyond high school.

Incomes were also low. Forty-three percent of the non-prescription hearing medicine users, versus 28 percent of the total sample, had incomes below \$5,000; 14 percent versus 21 percent had incomes of \$12,000 and over.

Fifty-seven percent of the non-prescription hearing medicine users, versus 47 percent of the total sample were male.

While the non-prescription hearing medicine users did not differ from the total sample in their evaluation of their health, they reported a great deal more worry about it. Thirty-five percent of them said they worry "a great deal" or "quite often", as compared to 10 percent of the total sample. Fourteen percent said they worry "a lot more" than other people their age, as compared to 3 percent of the total sample.

Ninety-five percent of the non-prescription hearing medicine buyers claimed to have seen a doctor within the past month, as compared to 29 percent of the total sample. Thirty-one percent of the buyers said they had ever changed doctors because of dissatisfaction, as compared to 20 percent of the total sample.

The non-prescription hearing medicine users appear to

have a greater tendency to trust laymen's judgments over those of physicians. When asked if they would try a medicine that a friend said helped him, but a doctor said was worthless, 21 percent, versus 12 percent of the total sample, said they would. When asked if they would go on using a medicine that they thought had helped them, but a doctor said was worthless, 41 percent, versus 36 percent of the total sample, said they would. When presented with a hypothetical situation in which a "brand new medicine for cancer" was condemned by most scientists and doctors as worthless, but the patients of the few doctors who used it claimed it saved their lives, 57 percent, versus 24 percent of the total sample, said they would believe the people who said the medicine cured them.

The non-prescription hearing medicine users seemed to have a more generalized tendency to self-medication. They were presented with five common ailments--sore throat, coughs, acid stomach, headaches, and skin rash--and asked how long they would continue using, without seeing a doctor, a medicine that controlled the condition as long as they kept taking it. For the first three ailments a smaller proportion of the users than of the total sample said they would see a doctor in three days or less. From 13 to 22 percentage points separated the two groups on these ailments.

The findings above could indicate that the non-prescription hearing medicine users were generally less reliant upon physicians. This view is partially supported by the results shown in Table 92. There seems to be some tendency for the users to be more critical of doctors and the medical profession,

Table 92

Percent of Non-Prescription Hearing Medicine Users
Agreeing with Statements about Doctors

	<u>Total Sample</u>	<u>Non-Prescription Hearing Medicine Users</u>
Most doctors put helping their patients above everything else	78	41
A lot of doctors are only interested in making money	61	64
There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	62	100
The medical profession concentrates too much on science and not enough on people	45	76
Despite all the scientific advances, doctors used to help their patients more than they do now	39	29
Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	22	31

although one of the statements (the second one) shows no difference, and the difference is reversed on one of the statements (the next to last).

Two other opinion statements dealt with non-prescription medicines. However, the non-prescription hearing medicine users were less likely than the total sample to agree that advertisements for medicine and health "must be true, or they wouldn't be allowed to say them" (12 percent versus 38 percent); and there was no meaningful difference on the proposition that most drug store remedies "are practically worthless" (43 percent versus 47 percent).

In another context, however, the non-prescription hearing medicine buyers did reveal a susceptibility to certain medicine advertising and labelling claims. They were presented with a list of such claims and were asked whether they would give them more faith in the medicine. The results are shown in Table 93.

The "personality scales" also showed differences between the non-prescription hearing medicine buyers and the total sample. These results are shown in Table 94.

The non-prescription hearing medicine users scored higher than the total sample on nearly all the scales, which would indicate a tendency to see the world as a threatening place, where one should be prepared for the worst to happen, and where the individual has little control over his fate.

Table 93

Percentage of Non-Prescription Hearing Medicine Users
Saying Medicine Claims would Give Them "More Faith"

	<u>Total Sample</u>	<u>Non-Prescription Hearing Medicine Users</u>
Supposed to help many conditions or diseases, not just one	19	21
Famous person testifies he was helped	23	62
Many ordinary people testify they were helped	41	62
A doctor is quoted as saying the medicine is good	58	86
Not only relieves a condition, cures it permanently	33	55
Doctor's diagnosis by mail available	5	-
Medicine is brand new	11	21

Table 94

Percent of Non-Prescription Hearing Medicine Buyers
in the High and Low Score Ranges
for the "Personality Scales"

	<u>Total Sample</u>	<u>Non-Prescription Hearing Medicine Users</u>
<u>Purposelessness</u>		
High score range	60	71
Low score range	4	-
<u>Anomia</u>		
High score range	19	41
Low score range	30	24
<u>Fatalistic thinking</u>		
High score range	23	48
Low score range	27	14
<u>Belief in intervention by God</u>		
High score range	69	60
Low score range	6	-
<u>Pessimism</u>		
High score range	5	14
Low score range	39	19
<u>Insecurity</u>		
High score range	5	5
Low score range	45	21

Hearing Aids

Those who had purchased hearing aids not recommended by a medical doctor were compared with those whose hearing aid purchases had all been with the recommendation of a medical doctor.

Again, the number of people who had purchased hearing aids without a medical doctor's recommendation was very small. While 53 percent of all hearing aid purchasers had bought without a physician's recommendation, that constitutes only about one percent or less of the total sample. (In fact, some respondents were inadvertently omitted from the group assembled for further analysis, so the special tabulations for this group included even fewer respondents than the percent of the total sample that had bought such hearing aids. The error almost certainly did not materially affect the results, however.) Because of the small number, interpretations must be cautious, and conclusions are not as firmly established as would be desirable in other circumstances.

The non-M.D. purchasers were considerably younger than the M.D. only purchasers: 14 percent versus 2 percent were under 35; 26 percent versus 60 percent were 65 or older. There was no difference in education, despite the age difference. However, the non-M.D. purchasers had higher incomes, which could be due to age: 37 percent, versus 62 percent of the M.D. purchasers, had incomes under \$5,000; 9 percent versus 3 percent, had incomes of \$12,000 or more. Seventy-four percent of the non-M.D. purchasers, versus 54 percent of the M.D. purchasers, were male.

The non-M.D. purchasers revealed, in several ways, a tendency to question the judgment of physicians. More of them than the M.D. purchasers had changed doctors because of dissatisfaction at some time (49 percent versus 22 percent). More of them said they would try a medicine recommended by a friend even if a doctor said it was worthless (11 percent, as compared to none of the M.D. purchasers), and more of them said they would go on using a medicine that had seemed to help them even if a doctor said it was worthless (43 percent versus 25 percent).

A generalized tendency to self-medication seems to be typical of the non-M.D. purchasers. When asked how long they would continue using, without seeing a doctor, a medication that was controlling some common ailments--sore throat, cough, stomach, headaches, skin rash--the percentage of non-M.D. purchasers who said they would see a doctor within three days ranged from 26 to 38 percent, as compared to 53 to 64 percent for the M.D. purchasers.

Fourteen percent of the non-M.D. purchasers said they had seen a doctor within the past month, as compared to 44 percent of the M.D. purchasers.

Any negative orientation toward reliance upon physicians has not generalized to generally negative attitudes toward the profession, however. In the series of attitude statements about doctors (shown earlier in Table 92) the non-M.D. purchasers were not strongly or consistently more critical than the M.D. purchasers.

Chapter Thirteen: "AIDS" TO QUITTING SMOKING

Incidence

Six percent of the total sample said they had bought, without a prescription, something "that was advertised to help you quit smoking or cut down smoking". However, only 80 percent of these people said it was something other than "ordinary candy or gum", so it appears that just under five percent of the total sample had bought a "special product for quitting smoking". Most authorities question the value of such products, and they are regarded as unproven, at best.

Purchase of these products was more likely among higher income people. Only one percent of those with incomes under \$3,000 reported it, as compared to three percent of those with incomes from \$3,000 to \$6,999, six percent of those with incomes of \$7,000 to \$11,999, and six percent of those with incomes of \$12,000 or more. The relationship with education was not as strong, which might mean that income is the more fundamental variable.

When shown a list of possible influences upon them, 53 percent of the users of a special product said TV or radio commercials had something to do with their purchase of it; 24 percent cited newspaper or magazine advertisements; and 15 percent cited store displays. "Friends" were cited by 12 percent, magazine articles by 7 percent, "relatives" by 5 percent, and medical columns by 4 percent.

Eighty-eight percent of the buyers of the products said they "just thought it was worth a try" (as opposed to "really believing it would help"). Fifteen percent said that it did help them. Male users reported a higher rate of satisfaction (18 percent) than female users (9 percent).

Characteristics of Users of Aids to Quitting Smoking

The users of special products supposed to help in quitting smoking were somewhat distinguishable from the total sample on certain demographic characteristics, as is shown in Table 95. Those persons who bought these products tend to have higher education and income than the total population, and more of them are males than in the total population.

With the exception of these demographic differences, the users of these products were practically indistinguishable from the total sample. On all of the questionnaire items that were used in other chapters of this report to characterize the special groups of interest, the responses of this group were nearly identical to those of the total sample. Even on those items that dealt with drugstore remedies and non-prescription medicine advertising and claims, the differences were no more than the small fluctuations that are readily attributed to chance.

Table 95

Percent of the Users of Products
Supposed to Help in Quitting Smoking,
by Selected Demographic Characteristics

	<u>Total Sample</u>	<u>Users of Products Supposed to Help in Quitting Smoking</u>
Male	63	47
Under age 34	35	35
Age 65 and over	5	15
Eighth grade education or less	9	22
College education or more	19	11
Income under \$5,000	14	42
Income \$12,000 or more	48	36

Chapter Fourteen: GENERAL HEALTH-RELATED BEHAVIOR, ATTITUDES, AND OPINIONS OF THE POPULATION

In other chapters of this report specific health practices in a number of different areas were singled out, and the general health-related behavior, attitudes, and opinions of the persons following these practices were examined. The questionnaire items used in these analyses were developed in the expectation that they would be related to the health practices studied. The preceding chapters have presented many such relationships.

In this chapter, the responses of the total sample to the behavior, attitude, and opinion items themselves will be examined. Many of these items represent obviously questionable or fallacious beliefs and orientations to health and health-related issues. Others have now been shown empirically to be associated with certain practices that are questionable. Thus, an examination of the beliefs and orientations of the general public in these areas is quite appropriate.

Perception of Own Health

All respondents were asked to compare their health with that of "most people their age", and the results are shown in Table 96. Clearly, many more people rate their health as better than average than rate it poorer. Men were somewhat more positive than women, and older respondents were considerably more positive than younger ones. The latter finding is particularly interesting.

Table 96

Percent Saying Health Is Better, Same, or Worse
Than Others Their Age, by Sex and Age

	<u>Total Sample</u>	<u>Sex</u>		<u>Age</u>				
		<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
Little better	22	24	21	14	19	21	26	38
Much better	23	25	20	22	20	25	21	26
About the same	48	46	50	60	55	48	42	28
Little worse	5	4	7	4	5	4	7	6
Much worse	2	2	2	1	+	2	3	2
Don't know	+	+	+	+	-	+	1	1

+ Means less than one percent.

It may be that the longer a person lives, with increasing awareness of mortality among his peers, the more he is inclined to congratulate himself for his good health.

Responses to this item were not strongly or meaningfully related to education: those with less than a high school education and those with a college education or more both judged their health more favorably than those with a high school education only, and the differences were not very great. The largest difference was between the 51 percent of those with a college education or more who said their health was either much better or a little better and the 40 percent of the high school graduates who so reported. Income differences were similarly unrevealing.

Worry About Health

The respondents were asked how much they worry about their health, and the results are shown in Table 97. The great majority reported little worry about their health. Men reported less worry than women. Although the difference was not very great, lower income people tended to report more worry than those with higher incomes, perhaps because the financial problems with sickness are a source of concern.

Education was slightly related to this question, but it seems likely, in view of the small size of the relationship, that it is due to the correlation of education with income.

Table 97

Percent Reporting Varying Amounts of Worry about Health by Sex and Income

	Sex			Income			
	Total Sample	Men	Women	Under \$3000	\$3000 \$6999	\$7000 \$11,999	\$12,000 and more
Great deal of the time	4	3	4	6	5	2	2
Quite often	6	4	8	9	6	5	7
Once in awhile	30	27	33	28	31	30	33
Hardly ever	60	66	55	57	58	63	58

Age seems unrelated to the question, perhaps surprisingly. Ten percent of both the respondents under 30, and the respondents 65 or over reported worrying a great deal of the time or quite often; 58 percent of the respondents under 30 and 62 percent of the respondents 65 or over reported worrying hardly ever. Thus, contrary to what might have been expected, older age does not seem to bring increasing worry about health.

In a related question, respondents were asked if they worry about health more, or less, than other people their age. This question was used because it was thought that the preceding one might be strongly affected by age; and it is interesting, therefore, that it was with this question that an age relationship emerged. The results are shown in Table 98.

Again, only a small minority of the total sample admitted to worrying more than other people their age. Older people were even more likely than younger ones to claim they worry less than others their age. The difference between men and women was about the same as for the preceding question. Relationships with education and income were slight and not very meaningful.

It is popularly believed that it is "hypochondriacs" who are most likely, in their fears and anxieties, to follow questionable or fallacious health practices and treatments. If a hypochondriac is defined as one who worries about his health a great deal and exaggerates the poor state of his health, this study only partially supports the popular notion. For many of the questionable practices covered in this study, at least, the preceding chapters showed that concern about health was often

Table 98

**Percent Saying They Worry about Health More, or Less
Than Other People Their Age, by Age**

	<u>Total Sample</u>	<u>Age</u>				
		<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
A lot more	3	3	2	2	2	3
A little more	6	10	7	4	5	3
About the same	36	46	39	34	32	23
A little less	21	19	23	23	21	22
A lot less	33	21	28	37	39	47
Don't know	1	+	+	1	1	2

+ Means less than one percent.

associated with the practices. At the same time, however, the followers of many of the practices evaluated their health as being better than most people their age. Thus, the most frequent relationship established here suggests that people who rate their health as good, but report much concern about it, are the most likely to engage in many of the questionable practices investigated.

The combination of being concerned or preoccupied with one's health while still believing it is better than average may be a natural one for "dabbling" with various practices. Without the concern there would be no motivation to dabble, but if a concerned person genuinely believes his health is very poor he may put himself in the hands of a physician rather than "shop around" among health treatments.

Use of Physicians

As is shown in Table 99, 11 percent of the total sample said they had seen a doctor within the week prior to the interview. When the interval is expanded to one month or less, 28 percent claimed to have seen a doctor. At the other extreme, 21 percent said more than a year had passed since they had seen a doctor. (These statistics are for non-hospitalized persons, of course, since the sample excluded hospitals and institutions.)

Women tended to have seen a doctor more recently than men. The age differences seem relatively slight. Older people were somewhat more likely to have seen a doctor within the past month, but at the other extreme, older

Table 99

Percent Citing Various Intervals Since
a Doctor Was Seen, by Sex and Age

	<u>Total Sample</u>	<u>Sex</u>		<u>Age</u>				
		<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
1 week or less	11	8	13	13	8	9	11	12
8 days to 2 weeks	6	5	7	5	6	5	6	18
15 days to 1 month	12	9	15	11	10	9	13	17
32 days to 6 months	31	29	32	33	32	30	29	28
Over 6 months to 1 year	20	23	17	21	22	21	19	15
Over 1 year to 5 years	17	21	13	15	19	21	16	13
Over 5 years	5	6	4	2	3	5	7	7

people were most likely to say that over five years had passed since they had seen a doctor.

Perhaps surprisingly, responses to this question were little related to income. The largest difference in this comparison was between the 7 percent of those with incomes under \$3,000 and the 3 percent of those with incomes of \$12,000 or more who reported not having seen a doctor for over five years. At the other extreme, 32 percent and 25 percent, respectively, said they had seen a doctor within a month. Thus, there was little overall difference.

Because it was assumed that a tendency to be critical of physicians, or hard to please, might be related to some of the practices that were investigated in this study, respondents were asked if they had ever changed doctors because they were "dissatisfied". Twenty percent of the total sample said they had done so. Women were more likely to report this than men: 24 percent versus 15 percent. Age differences were not very great: 23 percent of those under 30 and 18 percent of those 65 and over reported having changed doctors from dissatisfaction. The differences by education and income are even smaller.

Sixty-three percent of those who said they had ever changed doctors because of dissatisfaction reported having done so only once. Three percent (about one-half percent of the total sample) reported having done so five or more times.

Criteria for Confidence in a Doctor

The respondents were asked the effect of a number of things on their confidence in a doctor they were considering, shown in Table 100. Two of the items in the list are, of course, reasonable ways of forming an opinion about a physician--a recommendation from another doctor, and a recommendation from a friend. The other items are considered unethical practices by most medical doctors, and have been called "hallmarks of a quack" by various authorities.

While the majority of the sample seemed to be suspicious of the unethical practices, a sizable minority in each case either did not know or reported their confidence would be increased by the practice. Displaying "diploma mill" certificates and offering a money-back guarantee seemed to impress the most people.

As Table 100 shows, all of the unethical practices were rather strongly related to education, with those in the lower education category more susceptible to these practices.

For four of the items in the table an additional question was asked: whether the respondent had ever gone to anyone who used the practice. Slightly over one percent said they had gone to someone who advertised his services, nearly one percent said they had gone to someone who claimed to have a secret or special treatment, about one-half percent said they had gone to someone who claimed he was the only one who could help them,

Table 100

Percent Reporting Various Effects on Their Confidence
from Things Learned about a "Doctor", by Education

	Total Sample	Education		
		Less Than High School	High School	College
<u>Your old doctor recommended him</u>				
More confidence	89	88	90	92
Less confidence	5	5	6	4
Don't know	6	8	4	4
<u>You saw an advertisement for him in a newspaper</u>				
More confidence	4	7	3	2
Less confidence	86	81	87	91
Don't know	10	13	10	7
<u>He promised or guaranteed to help you or give your money back</u>				
More confidence	12	18	10	6
Less confidence	81	72	83	90
Don't know	7	10	7	3
<u>A good friend recommended him</u>				
More confidence	79	74	82	83
Less confidence	14	17	11	12
Don't know	7	9	7	5

(Continued)

Table 100 (continued)

Percent Reporting Various Effects on Their Confidence
from Things Learned about a "Doctor", by Education

	<u>Total Sample</u>	<u>Education</u>		
		<u>Less Than High School</u>	<u>High School</u>	<u>College</u>
<u>He told you that he could help you, but no one else could</u>				
More confidence	6	10	4	2
Less confidence	87	78	90	96
Don't know	7	12	6	2
<u>You learned that he had some secret or special treatments that no one else had</u>				
More confidence	9	14	6	3
Less confidence	84	74	89	94
Don't know	8	12	5	3
<u>He had a diploma on the wall that said "Doctor of Health Scientology"</u>				
More confidence	9	13	8	5
Less confidence	71	62	73	83
Don't know	19	25	19	12

and less than one-half percent said they had gone to someone who offered a money-back guarantee. With such small numbers, relationships with other variables could scarcely emerge, and they did not. Even small percentages can be meaningful, of course: one-half percent of the sample represents over half a million people.

The items covered in Table 100 were singled out for additional attention. Responses to the five unethical practices were scored, giving one point for each item on which the respondent said "more confidence", two points for each item answered "don't know", and three points for each item answered "less confidence". Thus, the lower his score, the more susceptible the respondent to these practices. Those with a score of seven or lower were singled out for analysis.

About one-fifth of the sample was classified in the susceptible group for analysis. (The size of this group is not meaningful, of course, since it was established with an arbitrary cutting point on a set of continuous scores.)

The "susceptibles" in this area had considerably less education than the total sample. Forty-one percent of them, versus 22 percent of the total sample, had an eighth grade education or less; 11 percent, versus 27 percent, had gone beyond high school.

There was also a marked income difference. Forty-seven percent of the "susceptibles", versus 28 percent of the total sample, had incomes under \$5,000; 11 percent, versus 21 percent, had incomes of \$12,000 or over.

There was an age difference, but it was not striking, and it seems unlikely that age patterns alone explain the relationship with education. Twenty-two percent of the "susceptibles" and 15 percent of the total sample were age 65 or over, but this was the largest age difference: there was no real difference between the percentages who were young. There was no meaningful sex difference.

Forty-six percent of the "susceptibles", versus 36 percent grew up in the South, and 3 percent versus one percent grew up in Puerto Rico; smaller proportions of the "susceptibles" than the total sample grew up in the other regions. Thirty-eight percent of the "susceptibles", versus 28 percent of the total sample, grew up on a farm; there was no difference in current residence on this rural-urban dimension, however. Twenty-six percent of the "susceptibles", versus 14 percent of the total sample, were black. All of these differences seem consistent with the education difference discovered.

The only other meaningful differences, apart from the demographic characteristics, occurred on items that seem logically related to the way in which the "susceptibles" were defined. That is, these people are not only susceptible to unethical practices by "doctors", as they were defined, they also seem especially susceptible to medicine advertising and labelling claims. For each of the questionable claims in the list that was presented to respondents (see the appended questionnaire, Q.202, or Table 101, for the claims), a higher percentage of "susceptibles" than the total sample said their faith in the medicine would be affected positively. The differences in percentages ranged from six points,

for the claim of a doctor's diagnosis by mail, to nineteen points, for the claim of a permanent cure instead of just symptomatic relief. Similarly, 51 percent of the "susceptibles" and 38 percent of the total sample agreed with the statement that "Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them".

Effect of Medicine Advertising and Labelling

Table 101 presents the percentages of respondents who said that certain advertising or labelling claims would increase or reduce their faith in the medicine. The first item in the list is, of course, a reasonable basis on which to have some confidence in a product, but the other items are all claims that are of doubtful validity or are of no objective value in judging the worth of a medicine from its label or an advertisement.

The responses reveal a significant degree of susceptibility to these practices. Quotes from "a doctor" and testimonials from "ordinary people" seem particularly likely to influence many people favorably toward the medicine.

At least two of the items represent claims and practices that could be considered fraudulent--the claim of a permanent cure, and the offering of a doctor's diagnosis by mail. In neither case did a majority of the respondents say that their faith in the medicine would be reduced.

Table 101

Percent Saying Faith in a Medicine Would Be
Increased or Reduced by Certain Claims,
by Age and Education

	Total Sample	Age					Education		
		Under 30	30- 39	40- 49	50- 64	65 and Over	Less Than High School	High School	College
<u>The medicine is made by a well-known company</u>									
Great deal more faith	27	26	30	27	28	27	30	26	26
Little more faith	41	49	43	41	35	33	33	45	48
No influence	31	24	26	30	36	38	35	28	26
Reduce faith	1	+	1	2	1	2	2	1	1
<u>The medicine is supposed to help many conditions or diseases, not just one</u>									
Great deal more faith	5	6	5	3	4	5	7	3	3
Little more faith	15	19	15	13	13	12	17	15	11
No influence	53	46	52	56	55	57	53	55	49
Reduce faith	28	29	28	28	28	25	23	26	37
<u>Some famous person testifies that he was helped by the medicine</u>									
Great deal more faith	4	3	5	3	6	5	9	2	1
Little more faith	18	20	16	21	17	17	23	19	11
No influence	68	68	69	67	68	72	63	70	74
Reduce faith	9	10	10	9	9	6	6	8	14

+ Means less than one percent.

(Continued)

251

Table 101 (continued)

Percent Saying Faith in a Medicine Would Be
Increased or Reduced by Certain Claims,
by Age and Education

	Total Sample	Age					Education		
		Under 30	30- 39	40- 49	50- 64	65 and Over	Less Than High School	High School	College
<u>Many ordinary people testify that they were helped by the medicine</u>									
Great deal more faith	8	8	10	6	8	6	11	7	3
Little more faith	34	42	32	33	30	28	35	35	31
No influence	54	46	53	55	56	61	50	53	59
Reduce faith	5	5	5	6	5	4	4	5	8
<u>A doctor is quoted as saying the medicine is good</u>									
Great deal more faith	19	17	20	20	19	22	25	19	12
Little more faith	38	45	36	36	38	34	38	41	37
No influence	39	36	41	42	40	40	35	39	47
Reduce faith	3	2	3	3	3	3	2	2	5
<u>The medicine not only re- lieves a condition, it cures it permanently</u>									
Great deal more faith	13	18	16	10	12	8	16	13	9
Little more faith	20	29	19	16	17	16	21	19	20
No influence	48	35	45	53	53	57	47	57	44
Reduce faith	19	18	21	20	18	17	16	17	26

(Continued)

Table 101 (continued)

Percent Saying Faith in a Medicine Would Be
Increased or Reduced by Certain Claims,
by Age and Education

	Total Sample	Age					Education		
		Under 30	30- 39	40- 49	50- 64	65 and Over	Less Than High School	High School	College
<u>You can get a doctor's diagnosis by mail</u>									
Great deal more faith	1	2	1	2	+	2	2	2	1
Little more faith	4	5	3	2	3	3	5	3	2
No influence	48	42	46	47	53	52	53	49	38
Reduce faith	47	51	49	48	43	44	41	46	59
<u>The medicine is brand new</u>									
Great deal more faith	1	1	2	2	1	1	3	1	+
Little more faith	10	10	10	10	10	9	11	11	6
No influence	69	69	69	66	70	71	67	70	71
Reduce faith	20	20	19	22	19	18	19	18	23

+ Means less than one percent.

For some of the items there is a tendency, not very great, for fewer older people than younger ones to be positively impressed.

Differences according to education are consistent and large enough to be meaningful. For every item (except the first one) those with less education appear to be more susceptible.

Differences between men and women were very slight. Differences by income paralleled those for education.

Those who seemed especially susceptible to the medicine claims in Table 101 were singled out for further investigation. All items, except the first one, were scored: a great deal more faith, four points, a little more faith, three points, no influence, two points, reduce faith, one point. Those with a score of 21 or higher were selected as "susceptibles". They numbered about six percent of the total sample. Of course, this proportion means little in itself, since the cutting score of 21 was set arbitrarily.

Those who were especially susceptible to the medicine claims, as defined above, were of about the same ages as the total sample. They had less education: 30 percent of them, versus 22 percent of the total sample, had an eighth grade education or less; 9 percent versus 27 percent, had gone beyond high school.

Twenty-two percent of the "susceptibles", versus 14

percent of the total sample, had incomes under \$3,000; 5 percent, versus 12 percent, had incomes of \$15,000 or more.

Forty-five percent of the "susceptibles", versus 36 percent of the total sample, grew up in the South; 3 percent and 1 percent, respectively, grew up in Puerto Rico. Forty-four percent of the "susceptibles", versus 28 percent of the total sample, grew up on a farm; 15 percent and 7 percent, respectively, lived on a farm at the time of interview. Twenty-six percent of the "susceptibles", versus 14 percent of the total sample, were black.

The susceptibility of the persons under examination was not restricted to medicine claims. For the five unethical practices of "doctors" that were shown earlier in Table 100, many more of the medicine "susceptibles" said their confidence in the doctor would be increased than did the total sample; the differences were on the order of three or four to one.

When asked if they would try a medicine that a friend recommended but that a doctor said was worthless, 26 percent of the "susceptibles" and 12 percent of the total sample said they would. When the issue was continuing to use a medicine that had seemed to help but that a doctor said was worthless, 47 percent and 36 percent, respectively, said they would. When asked whom they would believe in the case of a claimed cancer cure that was denounced by "most scientists and doctors", 52 percent of the "susceptibles" and 24 percent of the total sample said they would believe the people who claimed

they had been cured of cancer. Thus, on all three of these items the "susceptibles" seemed more likely than the total sample to uphold their own experience or that of laymen over the judgment of physicians.

Not surprisingly, 65 percent of the "susceptibles", as compared to 38 percent of the total sample, agreed that "Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them". Still, nearly as many "susceptibles" as members of the total sample (43 percent versus 47 percent) agreed that "Most of the things that people buy in drugstores to treat themselves are practically worthless".

The tendency toward susceptibility to medicine advertising claims seems to be associated with a tendency toward impatience: 44 percent of the "susceptibles", versus 30 percent of the total sample, agreed that "If a medicine doesn't help you right away, it probably isn't going to do any good at all".

The "susceptibles" had some tendency to be more critical of physicians than the total sample: the percentage agreeing with several such statements was typically about 10 points higher than the percentage for the total sample. (These statements are shown in Table 109.)

Finally, scores on three of the "personality scales" seemed to differentiate the "susceptibles" from the total sample. They scored higher on Anomia (30 percent versus 18 percent in high score range; 16 percent versus 29 percent

in low score range) and Fatalism (38 percent versus 22 percent in high score range; 10 percent versus 25 percent in low score range).

Personal Experience Versus Physicians' Judgment

The questionnaire included three hypothetical situations in which respondents were asked to weigh the judgments of physicians against direct experience by themselves or other laymen. (For the full text of these questions, see the questionnaire in the Appendix.) The results are shown in Table 102.

Over one-third of the sample reported that if they had tried a medicine and it seemed to be helping them, they would go on using it despite a doctor's advice that it was worthless, but harmless. Twelve percent said they would try a medicine that a friend with the same problem said had helped him, even if their doctor said it was worthless. For both of these questions men were more likely than women, and younger people more likely than older people, to overrule the physicians' judgment.

In a "cancer cure" controversy, where the judgment of "most scientists and doctors" is that the "cure" is worthless, but the patients of "a few doctors" who used it testify it saved their lives, practically one-fourth of the sample would trust the testimony of the patients over the expert judgment. In this case, the responses were little related to sex and age. (These responses undoubtedly reflect an orientation toward expert pronouncements and lay testimony that has broader application than just to "cancer cures".)

Table 102

Percent Responding as Shown to Hypothetical Situations,
by Sex and Age

	<u>Total Sample</u>	<u>Sex</u>		<u>Age</u>				
		<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 44</u>	<u>50- 64</u>	<u>65 and Over</u>
<u>Use medicine rec-</u>								
<u>ommended by a friend</u>								
<u>if physician said it</u>								
<u>was worthless?</u>								
Yes	12	15	9	15	13	9	11	8
No	81	78	84	77	78	85	82	86
Maybe	7	8	7	8	9	7	6	6
<u>Go on using medicine</u>								
<u>that seemed to help</u>								
<u>if physician said</u>								
<u>it was worthless?</u>								
Go on	36	41	31	44	40	36	28	28
Stop	57	51	61	49	52	57	63	64
Don't know	8	8	7	7	7	7	10	8
<u>Who is right in a</u>								
<u>"cancer cure" contro-</u>								
<u>versy? Those who say:</u>								
It is worthless	58	57	58	61	56	55	58	59
It cured them	24	26	22	26	24	27	24	18
Don't know	18	17	19	14	20	18	18	24

Table 103 shows the same responses according to education and income. Those with less education were more likely to overrule the experts in the "cancer cure" controversy, but they were also more likely to stop using a medicine that a doctor told them was worthless. The same pattern held when income was examined.

In a follow-up to the "cancer cure" question, respondents were asked if they thought the medicine in question should be stopped by law. Only 45 percent said it should, 37 percent said it should not, and 17 percent said they didn't know. Again, men and younger people were most likely to oppose a legal ban. (Men versus women in opposing a ban: 43 percent versus 33 percent. Under 30 versus 65 and older: 48 percent versus 38 percent.) Thus, it appears that public sentiment against legal bans on controversial treatments is quite high.

One reason for this sentiment is the belief that reaction to medication is so idiosyncratic that generalizations from research on treatments are always suspect when applied to any individual. Many people put a high value on "faith" in medicine, too, and do not want to see a treatment denied to anyone who has faith in it. Thus, they overlook the consequences to public health and safety from permitting distribution of ineffective products. These orientations are discussed in the chapter presenting the depth interview results.

The three items reported in Tables 102 and 103 seemed important enough to warrant further investigation. First, those who overruled physicians or authority on any of the three items were combined into a single group. This combination, however, included 78 percent of the total sample, so it appears that this definition is too broad to define "susceptibles" in this area. Since this approach was not useful, the best analysis available in the

Table 103

Percent Responding as Shown to Hypothetical Situations,
by Education and Income

	<u>Total</u> <u>Sample</u>	<u>Education</u>			<u>Income</u>			
		<u>Less Than</u> <u>High School</u>	<u>High</u> <u>School</u>	<u>College</u>	<u>Under</u> <u>\$3,000</u>	<u>\$3,000-</u> <u>\$6,999</u>	<u>\$7,000-</u> <u>\$11,999</u>	<u>\$12,000</u> <u>and Over</u>
<u>Use medicine rec-</u> <u>ommended by a</u> <u>friend if physi-</u> <u>cian said it was</u> <u>worthless?</u>								
Yes	12	13	11	11	11	12	12	10
No	81	80	83	82	80	80	83	84
Maybe	7	8	6	8	8	8	6	6
<u>Go on using medicine</u> <u>that seemed to help</u> <u>if physician said it</u> <u>was worthless?</u>								
Go on	36	32	36	40	29	34	38	41
Stop	57	59	57	52	58	59	56	54
Don't know	8	9	6	8	13	8	7	6
<u>Who is right in a</u> <u>"cancer cure" con-</u> <u>troversy? Those</u> <u>who say:</u>								
It is worthless	58	51	58	68	49	54	61	65
It cured them	24	29	24	17	27	26	24	21
Don't know	18	21	18	15	25	21	16	14

tabulations that were produced is an examination of those who answered the second two items in a "susceptible" direction.

Those who said they would continue using a medicine that they thought was helping, despite a physician's advice that it was worthless (the second item in Table 103), were different from the total sample in only a few ways. Slightly more of them were young (42 percent, versus 37 percent under age 34), and slightly more were males (53 percent, versus 47 percent). They seem somewhat more inclined to self-medication. When asked how long they would continue using medicine that seemed to control a number of "minor ailments", such as sore throat and skin rash, without seeing a doctor, the percentages of the total who said they would see a doctor in three days or less ranged from 41 to 55, depending upon the ailment, while the range for the respondents under examination was from 31 to 48. In all other respects, including the attitude and opinion items, these respondents were very similar to the total sample.

Those who sided with the patients who claimed to be cured in the case of the "cancer cure" controversy (the third item in Table 103) were more distinguishable from the total sample. However, the only demographic difference worthy of note was an education. Twenty-seven percent of the cancer cure "susceptibles", versus 22 percent of the total sample, had an eighth grade education or less; 18 percent and 27 percent, respectively, had gone beyond high school.

The cancer cure "susceptibles" were also more susceptible

to the unethical practices of "doctors", as presented earlier in Table 100. For each of the unethical practices, such as advertising and offering money-back guarantees, from three to seven percentage points more cancer cure "susceptibles" than the total sample said they would have their confidence increased.

Similarly, they were more susceptible to claims made in medicine advertising or labelling. For the doubtful claims that were shown in Table 101, from four to 15 percentage points more cancer cure "susceptibles" than members of the total sample said their faith in the medicine would be increased.

Fifty percent of the cancer cure "susceptibles" agreed with the statement that "Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them", as compared to 38 percent of the total sample.

Seventy-three percent of the cancer cure "susceptibles" and 62 percent of the total sample agreed that "There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to". On other statements critical of the medical profession, however, only six or eight percentage points more cancer cure "susceptibles" than members of the total sample agreed.

In summary, the cancer cure "susceptibles" are perhaps fairly characterized as generally gullible people. On the other hand, those who said they would continue using a medicine that they thought was helpful, even though

it was called worthless by a doctor they mentioned it to, seem to be most characterized as having a general tendency to self-medication.

Self-Medication

The respondents were asked to assume that they had certain ailments and had found a medicine that controlled them with continuous use, and were asked how long they would wait before asking a doctor about it.* The results are shown in Table 104.

For each of the ailments, about one-half of the respondents claimed they would consult a doctor in three days or less. On the other hand, from eight to twelve percent said they would wait longer than two weeks, which is excessive and potentially hazardous self-medication by almost any standard.

Table 105 presents information on this issue according to age and income. The age differences are slight, but do seem to reveal a tendency for more people in the youngest and the oldest age categories to say they would self-medicate for more than two weeks. On the other hand, people in the oldest category also were especially likely to report they would see a doctor in three days or less.

The relationship with income is more regular: people with low incomes seem most likely, and those with high incomes least likely, to self-medicate.

*This is not the same question as self-medication.

Table 104

Percent of the Total Sample Saying They Would Continue
"Effective" Self-Medication for Varying Periods
Before Seeing a Doctor

<u>Would see doctor:</u>	<u>Sore Throat</u>	<u>Cough</u>	<u>Acid Stomach</u>	<u>Headaches</u>	<u>Skin Rash</u>
First	9	9	10	9	11
1-3 days	36	32	40	46	41
4 days - 1 week	34	36	29	27	29
8 days - 2 weeks	10	12	7	6	7
15 days - 1 month	4	5	5	3	4
32 days - 6 months	1	1	2	2	1
More than 6 months	+	+	1	1	+
Would not see doctor	3	3	4	3	3
Don't know	2	2	4	3	4

+ Means less than one percent.

Table 105

Percent Saying They Would Continue
"Effective" Self-Medication for Varying Periods
Before Seeing a Doctor by Age and Income

	Age					Income			
	Under 30	30- 39	40- 49	50- 64	65 and Over	Under \$3,000	\$3,000- \$6,999	\$7,000- \$11,999	\$12,000 and More
<u>Sore throat</u>									
3 days or less	37	47	45	51	53	44	44	47	47
More than 2 weeks	11	8	7	6	9	11	9	8	5
<u>Cough</u>									
3 days or less	35	41	40	46	46	38	40	42	44
More than 2 weeks	11	8	8	8	10	11	9	10	6
<u>Acid stomach</u>									
3 days or less	47	51	47	51	50	43	50	51	50
More than 2 weeks	14	11	10	11	10	12	11	11	10
<u>Headaches</u>									
3 days or less	53	56	57	56	53	48	56	56	57
More than 2 weeks	10	10	9	9	11	12	9	10	7
<u>Skin rash</u>									
3 days or less	46	52	52	55	53	49	52	52	53
More than 2 weeks	10	9	9	7	10	9	9	9	6

The relationship with education paralleled that for income, but was less marked.

Men were slightly more prone to self-medication than women. For every ailment more women than men claimed they would see a doctor first, before any program of self-medication. The difference was four or five percentage points. For two of the ailments more men said they would wait more than two weeks: for sore throat three percentage points more men than women said so, and for skin rash one percentage point more men said so.

The "Naturalness" of Good Health

During the depth interviewing conducted in this study a difference among people in basic orientation toward health was discovered. For some people, good health is a naturally occurring state. Bad health results from something going wrong. In the absence of something specifically wrong, health is good. Therefore, good health is the norm, and bad health is the deviation from the norm.

For other people, good health is not seen as a naturally occurring phenomenon. These people view good health as something beyond the norm. For them, merely having nothing specifically wrong does not mean the presence of good health; good health is a positive state, rather than simply the absence of negatives. In its extreme form, this orientation views good health as a state in which vitality and energy are so high that one never becomes tired or even mentally distressed with anxiety or boredom.

The first position, that good health is the norm and is defined simply as the absence of pathology, seems characteristic of most physicians and the medical profession. A doctor who conducts a thorough examination and finds nothing "wrong" reports that the patient's health is "good".

The other orientation seemed, in the depth interviews, to result in a tendency of many people to try to intervene constantly with their health, to try many treatments and strategies, even in the absence of specific complaints. It appeared that if the drive to achieve some state of good health beyond the norm is strong enough, there may be an uncritical interest in almost any treatment or regimen that suggests itself, especially since the medical profession seems to offer little support for those with this orientation.

In a sense, what is being proposed is a somewhat different understanding of hypochondriasis: it is not that those people are exaggerating their complaints, as the classic hypochondriac does, but rather that they are unwilling to accept as "normal" any problems at all, so that occasional fatigue, depression, or anxiety means to them that their health could be better, and that they do not, therefore, have good health.

At any rate, the issue of the "naturalness" of good health was investigated in the survey. The respondents were presented with two pairs of statements, and were asked to choose within each pair the one that "seems more true". The statements and responses are shown in Table 106.

Table 106

Percent Saying Each Statement, in Pairs, Seems More True

	<u>Total Sample</u>
Good health is a natural thing	40
A person has to work at it constantly to have good health	58
Don't know	2
Good or bad health primarily results from the body we are born with	14
How we take care of ourselves is more important than the body we are born with	83
Don't know	2

The first pair of statements is logically more related to the issue described above; the second pair somewhat broadens the issue.

It appears that a majority of the sample is more inclined to believe that good health requires constant vigilance and attention than that it is a natural thing.

It was found, during the analyses that have been reported, that these responses, particularly those for the first pair of statements, were related to some of the doubtful practices that have been investigated. Thus, there is some confirmation of the hypothesis that differences on this orientation are associated with the tendency to questionable health practices.

Differences in these responses according to demographic characteristics seemed very small and inconsequential, and therefore are not reported.

Health-Related Opinions

The respondents were presented with a number of statements, and asked to state the extent of their agreement with them. Table 107 shows the full responses of the total sample, and Tables 108 and 109 show, by sex, age, education, and income, the percentages of respondents who agreed at all (i.e., the two categories of agreement were combined in these tables).

Table 107

Percent of Total Sample Reporting Degrees of
Agreement with Opinion Statements

	<u>Agree Very Much</u>	<u>Agree a Little</u>	<u>Disagree a Little</u>	<u>Disagree Very Much</u>	<u>Don't Know</u>
1. For most people who have had health, a major reason is they don't eat right.	36	39	19	7	+
2. Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them.	8	30	34	28	1
3. Most doctors put helping their patients above everything else	43	36	16	5	+
4. A lot of doctors are only interested in making money	23	39	25	14	1
5. If a medicine doesn't help you right away, it probably isn't going to do any good at all	11	19	49	21	1
6. There are a lot of old-fashioned remedies around that doctors don't pay enough attention to	24	38	23	14	1
7. Most of the things that people buy in drugstores to treat themselves are practically worthless	18	29	40	12	1
8. The medical profession concentrates too much on science and not enough on people	15	30	35	19	2
9. Despite all the scientific advances, doctors used to help their patients more than they do now	16	22	30	31	1

+ Means less than one percent.

(Continued)

Table 107 (continued)

	<u>Agree</u> <u>Very</u> <u>Much</u>	<u>Agree a</u> <u>Little</u>	<u>Disagree</u> <u>a Little</u>	<u>Disagree</u> <u>Very</u> <u>Much</u>	<u>Don't</u> <u>Know</u>
10. Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	5	17	42	34	2
11. The government doesn't have any business deciding what kinds of medicines are legal	10	7	23	59	1
12. Community water supplies should be fluoridated	46	32	11	8	3
13. The law should require that children must be vaccinated or inoculated against contagious diseases	80	15	3	2	+
14. It is nearly impossible to know in advance whether or not a medicine will help you because what works for one person won't work for another	60	30	7	3	+
15. I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	38	28	21	12	+

+ Means less than one percent.

Table 108

Percent Agreeing with Opinion Statements,
by Sex and Age

	<u>Sex</u>		<u>Age</u>				
	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
1. For most people who have had health, a major reason is they don't eat right.	76	73	76	72	69	75	80
2. Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them	39	37	44	40	34	35	35
3. Most doctors put helping their patients above everything else	76	81	75	78	78	83	78
4. A lot of doctors are only interested in making money	63	59	59	65	63	60	62
5. If a medicine doesn't help you right away, it probably isn't going to do any good at all	33	27	24	26	32	34	37
6. There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	62	62	51	56	65	68	75
7. Most of the things that people buy in drugstores to treat themselves are practically worthless	47	47	38	44	47	53	56
8. The medical profession concentrates too much on science and not enough on people	45	44	36	41	47	51	51
9. Despite all the scientific advances, doctors used to help their patients more than they do now	40	37	33	36	37	45	45

(Continued)

Table 108 (continued)

	<u>Sex</u>		<u>Age</u>				
	<u>Men</u>	<u>Women</u>	<u>Under 30</u>	<u>30- 39</u>	<u>40- 49</u>	<u>50- 64</u>	<u>65 and Over</u>
10. Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	25	19	21	20	19	25	23
11. The government doesn't have any business deciding what kinds of medicines are legal	17	17	15	14	16	20	21
12. Community water supplies should be fluoridated	77	79	83	80	82	74	68
13. The law should require that children must be vaccinated or inoculated against contagious diseases	94	97	96	94	96	95	96
14. It is nearly impossible to know in advance whether or not a medicine will help you because what works for one person won't work for another	89	91	87	88	90	92	95
15. I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	71	61	61	66	62	70	74

Table 109

Percent Agreeing with Opinion Statements,
by Education and Income

	Education			Income			
	Less Than High School	High School	College	Under \$3,000	\$3,000- \$6,999	\$7,000- \$11,999	\$12,000 and More
1. For most people who have bad health, a major reason is they don't eat right.	77	74	71	78	78	73	70
2. Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them	44	37	30	43	40	36	35
3. Most doctors put helping their patients above everything else	82	77	75	79	78	78	78
4. A lot of doctors are only interested in making money	63	61	61	66	62	60	58
5. If a medicine doesn't help you right away, it probably isn't going to do any good at all	39	28	18	36	32	29	23
6. There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	71	60	51	72	66	59	53
7. Most of the things that people buy in drugstores to treat themselves are practically worthless	51	43	46	54	47	43	48
8. The medical profession concentrates too much on science and not enough on people	53	43	34	54	50	43	32

(Continued)

Table 109 (continued)

	Education		Income				
	Less Than High School	High School	College	Under \$3,000	\$3,000-\$6,999	\$7,000-\$11,999	\$12,000 and More
9. Despite all the scientific advances, doctors used to help their patients more than they do now	47	37	29	46	42	37	29
10. Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	28	19	17	30	24	20	16
11. The government doesn't have any business deciding what kinds of medicines are legal	20	17	12	23	19	15	14
12. Community water supplies should be fluoridated	75	78	83	75	77	78	83
13. The law should require that children must be vaccinated or inoculated against contagious diseases	96	96	94	95	96	95	95
14. It is nearly impossible to know in advance whether or not a medicine will help you because what works for one person won't work for another	94	91	83	95	92	89	84
15. I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	69	64	65	69	65	63	72

The first statement was included because both general observation of trends in our society and the depth interviewing conducted suggested that many people may be greatly overestimating the extent of the relationship between health and diet. Certainly the extent of agreement with the statement used supports this interpretation.

Statements 2 and 7 are both concerned with non-prescription medication. The belief that medicine advertisements must be true was most common among those with less education and income. Doubts about the value of most "drug-store treatments" were least common among younger people.

Statements 3, 4, 6, 8, 9 and 10 are all directed at doctors or the medical profession. Statements 3 and 4 nearly contradict one another, and yet the number agreeing with each constituted a majority. Apparently there is a great deal of ambivalence about the motivations of doctors. The other statements deal more with trends in the profession, and the extent of negative opinion, which was especially common among older people and those with little education and low incomes, was striking.

Statements 5 and 14 were included because the depth interviewing suggested that these opinions were related to the tendency to try unorthodox treatments and regimens. People who are very impatient for results obviously seem more likely to try different medicines, perhaps including the unorthodox, and statement 5 did differentiate some of the groups of respondents that were examined.

Statement 14 resulted from the hypothesis, developed in the depth interviewing, that many people have seized upon the medical truth that individual responses to a medication vary, and use it to rationalize anything, no matter how non-rational it is. Will eating carrots, or taking laxatives, or using iron tonic help arthritis? Many of the depth interview respondents believe that it doesn't matter how much rational and clinical evidence there is against it, they can't be sure until they try it themselves, because something that doesn't work for anyone else might work for them. Statement 14, however, did not differentiate very well any of the groups that were examined. Nearly everyone in the sample agreed with it, so there was little chance to differentiate persons on this orientation.

The other statements in the tables covered areas of general interest, and the results presented are self-explanatory.

A special analysis was conducted of those persons who were extremely critical of doctors and the medical profession. Statements 3, 4, 6, 8, 9, and 10 were scored. For all except statement 3, 4 points were given for a response of "agree very much", 3 points for "agree a little", 2 points for "disagree a little", and 1 point for "disagree very much". The scoring was reversed for statement 3. Those who scored 16 or higher were selected for further analysis.

The "physician critics" tended to be older--17 percent of them, as compared to 9 percent of the total sample, were 70 or over; 33 percent versus 22 percent, were 60

or over. Fifty-seven percent of them, versus 47 percent of the total sample, were male. Thirty-one percent, versus 14 percent of the total sample, were black.

The "physician critics" generally had less education and lower incomes. Thirty-four percent, versus 22 percent of the total sample, had an eighth grade education or less. Twenty-eight percent, versus 14 percent, had incomes under \$3,000; 13 percent versus 21 percent, had incomes of \$12,000 or over.

The "physician critics" did not differ meaningfully from the total sample in the time elapsed since a doctor was seen, or on ever having changed doctors because of dissatisfaction. Nor did they differ, on their reported inclination to treat minor ailments with self-medication (items shown in Table 104).

However, they did reveal a tendency to accept their own direct experience or that of other laymen over physicians' judgments. Twenty-five percent of them, versus 12 percent of the total sample, said they would try a medicine that a friend said helped him, despite a doctor's advice that it was worthless. Forty-eight percent, versus 36 percent of the total sample, said they would go on using a medicine they thought was helping them, even after a doctor declared it worthless. Forty-one percent, versus 24 percent of the total sample, sided with the people who claimed to have been cured, in the case of the "cancer cure" condemned by "most scientists and doctors".

The skepticism about doctors evidently extends into other areas. Only 28 percent of the "physician critics" agreed with statement 2 in the preceding tables, that medicine advertising must be true, as compared to 38 percent of the total sample. Sixty-six percent, as compared to 47 percent of the total sample, agreed that with statement 7, that most drugstore treatments are practically worthless.

Perhaps one reason for their criticism of the medical profession is their impatience: 60 percent, versus 30 percent of the total sample, agreed with statement 5, that a medicine that doesn't help right away will probably do no good at all.

The "physician critics" scored higher than the total sample on two of the "personality scales". On Anomia, 34 percent of them, versus 18 percent were in the high score range; 10 percent, versus 29 percent, were in the low score range. On Fatalistic thinking, 35 percent, versus 22 percent of the total sample, were in the high score range; and 18 percent, versus 25 percent, were in the low score range. These scores may indicate that they have a general sense of futility that they are applying to the efforts of medical science.

Chapter Fifteen: OVERLAP OF THE GROUPS INVESTIGATED

According to some popular thinking, there are people who are susceptible to virtually any fraudulent claims and practices. In this view, a relatively few gullible people are victimized over and over by different schemes. There is believed to be a type of person who is susceptible of health fallacies, almost regardless of their content.

That view might perhaps be correct or useful when considering those dramatic cases of outright quackery that are statistically infrequent. But it is not very applicable to those more common questionable practices that were investigated in this study.

Table 110 shows the overlap between pairs of practices, covering most of the broad areas investigated in this study. The table shows the percentage of a group defined by a column who also fell into the group defined by a row. For example, the entry for column C, row G, indicated that 11.9 percent of those who followed some questionable weight reduction practice also engaged in questionable use of a chiropractor, homeopath, or naturopath. The percentages can be compared with those in the first column, which show the proportion of the total sample that fell in each category.

The overlaps among the groups tend to be, on the average, slightly larger than the percentages in the first column, indicating some tendency for people following one questionable practice to also follow another. But the tendency is not very great, and it is reasonable to conclude that people following one specific questionable practice are only slightly more likely than people in general to follow some other practice. In short, there is no evidence of a substantial tendency for a relatively small number of people to account for a relatively large number of fallacious practices.

Table 110

Overlap Between Groups of Health Practice Followers
(Rows are percentages of columns)

	Total Sample	A	B	C	D	E	F	G	H	I	J
A	26.2	100.0	41.6	38.5	29.1	25.3	30.5	26.6	47.6	31.4	36.2
B	4.4	7.1	100.0	9.1	2.8	4.8	5.1	9.6	14.3	11.4	4.3
C	6.1	9.0	12.5	100.0	9.1	9.2	9.2	11.6	14.3	-	6.9
D	12.4	13.8	7.8	18.5	100.0	14.5	16.2	12.3	19.0	17.1	19.6
E	7.5	7.2	8.0	11.2	8.7	100.0	13.4	19.4	9.5	28.6	7.5
F	6.6	7.7	7.6	9.9	8.6	11.8	100.0	9.6	14.3	11.4	11.2
G	6.2	6.3	13.4	11.9	6.2	16.2	9.0	100.0	-	51.4	13.2
H	0.4	0.8	1.3	1.0	0.6	0.5	0.9	-	100.0	5.7	0.9
I	0.3	0.4	0.9	-	0.5	1.3	0.6	2.9	4.8	100.0	-
J	4.6	6.3	4.5	5.2	7.3	4.6	7.8	3.2	9.5	-	100.0

- A Questionable use of nutrition supplements
- B Health food use
- C Questionable weight reduction practices
- D Prolonged self-medication for common ailments
- E Questionable arthritis treatment practices
- F Questionable self-medication for serious ailments
- G Questionable use of chiropractor, homeopath, or naturopath
- H Non-prescription hearing medicine
- I Hearing aid without M.D.'s recommendation
- J "Aids" to quitting smoking

APPENDIX A

THE QUESTIONNAIRE

National Analysts, Inc.
Philadelphia, Pa.

Study #1-711
June, 1969
Budget Bureau No. 85-568020
Approval Expires: September 30, 1969

A STUDY OF HEALTH PRACTICES AND OPINIONS

Time Interview Began: _____ AM _____ PM
Time Interview Ended: _____ AM _____ PM

Segment # _____

D.U. # _____

Respondent's name _____ Tel. # _____

Street address _____

City _____ State _____ Zip code _____

Interviewer's name _____ S.S. # _____

Date _____

INTRODUCTION: Hello. My name is _____. I'm from National Analysts, Inc., a survey research organization. We are making a survey all over the country for the United States Government. I am here because this household was chosen at random from among all the households in this area.

The survey is about health, the things people do for their health, what people know about health products, and how they choose them. Health is important to everyone, and we are doing this research to find out if health education programs can be improved, or if the government should change any of its concerns in the area of health.

All of the interviews we get will be lumped together and analyzed statistically, to represent the nation as a whole. The names of individual people will be seen only by the research staff and will not be given out under any circumstances. Whatever is said in the interviews will be kept in the strictest confidence.

1. I'll start with some questions about food and diet. Some people take vitamin pills, tonics, dietary supplements, and the like, to give them extra vitamins or minerals. Since you have been an adult, have you ever taken:

	Yes	No
Vitamin pills,	1	*
Tonics for the blood,	2	*
Any other similar product, such as yeast tablets, liver extract, mineral capsules, etc.? (SPECIFY)	3	*

(IF NONE OF THE PRODUCTS WERE USED IN Q.1, ASK Q.2, OTHERWISE SKIP TO Q.3.)

2. What do you think they might do for you if you did use them?

(SKIP TO Q.14)

3. When was the last time you used (PRODUCT) ?

(IF NO YEARS LATER THAN 1963, SKIP TO Q.6. OTHERWISE, ASK Q.4 ABOUT YEARS COVERED.)

	RECORD YEAR
Vitamin pills	
Tonics for the blood	
Other (SPECIFIED IN Q.1)	

4. (ASK FOR EACH YEAR BELOW, STARTING WITH YEAR GIVEN IN Q.3) How many months in (YEAR) did you use (PRODUCT)?

	1969	1968	1967	1966	1965	1964
Vitamin pills						
Tonics for the blood						
Other (SPECIFIED IN Q.1)						

(ASK FOR EACH PRODUCT THAT WAS USED IN 1969. IF "NONE," SKIP TO Q.6)

5. Are you taking (PRODUCT) now?

	Yes	No
Vitamin pills	1	2
Tonics for the blood	1	2
Other (SPECIFIED IN Q.1)	1	2

-284-

6. (ASK FOR EACH PRODUCT GIVEN IN Q.1) How often did you usually take (PRODUCT) when you took it?

(CIRCLE ONE #)

	# of Times a:	Day	Week	Month
Vitamin pills		1	2	3
Tonics for the blood		1	2	3
Other (SPECIFIED IN Q.1)		1	2	3

7. What are/were your reasons for using (PRODUCT) ?

Vitamin Pills	Tonics for the blood	Other

8. Did you expect (PRODUCT) to make you feel better?

	Yes	No
Vitamin pills	1	2
Tonics for the blood	1	2
Other (SPECIFIED IN Q.1)	1	2

9. How strongly would you say you believed the (PRODUCT) would help you? Would you say:

	You were convinced you would be helped	You just took them to be safe
Vitamin pills	1	2
Tonics	1	2
Other <i>285</i>	1	2

10. Did the (PRODUCT) do for you what you hoped it would?

	Yes	No	D.K. Maybe
Vitamin pills	1	2	V
Tonics for the blood	1	2	V
Other (SPECIFIED IN Q.1)	1	2	V

11. (SHOW CARD 1) Which, if any, of these people who give a health service advised or told you to take (PRODUCT)? (CIRCLE AS MANY AS APPLY BELOW)

12. (ASK FOR EACH CIRCLED IN Q.11) Did the (PRACTITIONER) first bring up the (PRODUCT) himself, or did you first ask him about it? (ASK FOR EACH PRODUCT USED, AND RECORD RESPONSES BELOW)

(READ WITH RESPONDENT)	Vitamin Pills			Tonics for the Blood			Other (SPECIFIED IN Q.1)		
	Q.11	Q.12		Q.11	Q.12		Q.11	Q.12	
		Pract. first	Resp. first		Pract. first	Resp. first		Pract. first	Resp. first
Chiropractor	1	1	1	1	1	1	1	1	1
Homeopath	2	2	2	2	2	2	2	2	2
Medical doctor	3	3	3	3	3	3	3	3	3
Naturopath	4	4	4	4	4	4	4	4	4
Nurse	5	5	5	5	5	5	5	5	5
Osteopath	6	6	6	6	6	6	6	6	6
Pharmacist	7	7	7	7	7	7	7	7	7
Vitropath	8	8	8	8	8	8	8	8	8
Some other person who gives a health service (SPECIFY:)	9	9	9	9	9	9	9	9	9
(DO NOT READ) No one who gives health service (SKIP TO NEXT PRODUCT OR Q.13)	0			0			0		

-286-

13. (SHOW CARD 2) Which, if any, of the following have had anything to do with your use of (PRODUCT)? (ASK FOR EACH PRODUCT USED, AND CIRCLE AS MANY AS APPLY BELOW)

		Vitamin pills	Tonics for the blood	Other (SPECIFIED IN Q.1)
(READ WITH RESPONDENT)	Newspaper or magazine advertisements	1	1	1
	TV or radio commercials	2	2	2
	Medical columns in newspapers or magazines	3	3	3
	Books	4	4	4
	Lectures	5	5	5
	Magazine articles	6	6	6
	Door-to-door salesmen	7	7	7
	Salesmen at fairs	8	8	8
	Store displays	0	0	0
	Mail advertising	V	V	V
	Salesman who called on telephone	1	1	1
	Friends	2	2	2
	Relatives	3	3	3
(DO NOT READ)	None of the above	0	0	0

(ASK ALL RESPONDENTS)

14. I'll read some reasons people take extra vitamins and minerals and you tell me if you think they are true, or not. (READ THE STATEMENTS AND RECORD THE RESPONSES IN COL. 1 BELOW)

(ASK Q.15 ONLY OF THOSE WHO HAVE USED THESE PRODUCTS - SEE Q.1. OTHERWISE SKIP TO Q.16)
 15. Now I'll read again the things you said were true, and you tell me if each one was a reason why you used vitamins, tonics or minerals. (READ EACH STATEMENT CIRCLED "TRUE" IN Q.14 AND ASK:) Was that a reason why you used vitamins, tonics or minerals? (RECORD RESPONSES IN COL. 2 BELOW)

	Col. 1 Q.14			Col. 2 Q.15	
	True	False	Don't Know	A Reason	Not a Reason
a. To give them/you more pep and energy	1	2	V	1	*
b. To prevent colds	1	2	V	2	*
c. To prevent or treat arthritis	1	2	V	3	*
d. To keep them/you feeling young	1	2	V	4	*
e. To prevent or treat cancer	1	2	V	5	*
f. To make them/you generally more healthy	1	2	V	6	*
g. To stay healthy while reducing	1	2	V	7	*
h. To keep them/you from getting sick	1	2	V	8	*

16. Have you ever eaten food advertised or labeled as "organic" or "natural" food, like health food stores sell?

	Yes	1
(SKIP TO Q.25)	No	2

17. Altogether, have you eaten these special health foods more than five times?

	Yes	1
(SKIP TO Q.25)	No	2

18. When you were eating this special food, at how many meals in a month did you eat it?

of meals per month _____

19. During the past five years, about how many months have you eaten it?

of months _____

20. How long ago was the last time you ate any of this special food?

	Using now	00
	Less than one year ago	01
(RECORD NUMBER)	# of years ago	

21. Why did you start eating this special food?

22. How strongly would you say you believed in the value of this special food? Would you say:

	You strongly believed you would be helped, or	1
	You just thought it was something to try?	2

288-

23. (SHOW CARD 1) Which, if any, of these people who give a health service advised or told you to eat this food? (CIRCLE AS MANY AS APPLY IN COL. 1 BELOW)
24. (ASK FOR EACH NAMED IN Q.23) Did the (PRACTITIONER) first bring up the (PRODUCT) himself, or did you first ask him about it? (CIRCLE THE RESPONSE IN COL. 2 BELOW)

	Col. 1	Col. 2	
	Q.23	Q.24	
		Practitioner first	Respondent first
Chiropractor	1	1	1
Homeopath	2	2	2
Medical doctor	3	3	3
Naturopath	4	4	4
Nurse	5	5	5
Osteopath	6	6	6
Pharmacist	7	7	7
Vitropath	8	8	8
Some other person who gives a health service (SPECIFY:)	9	9	9
(DO NOT READ) No one who gives a health service	0		

(READ IF THIS IS THE FIRST TIME CARD 1 IS SHOWN)

25. (SHOW CARD 2) Which, if any, of the following have had anything to do with your use of this special health food? (CIRCLE AS MANY AS APPLY BELOW)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

26. (SHOW CARD 3) Now I'll read some statements about food, and you tell me if you think each one is true, or not.

	True	False	Don't Know
a. The chemicals added to our manufactured food take away much of its value for health	1	2	V
b. Man-made vitamins are just as good as natural vitamins	1	2	V
c. Much of our food has been so processed and refined that it has lost its value for health	1	2	V
d. Chemical sprays that farmers use make our food a danger to health, even if they are used carefully	1	2	V
e. There is no difference in food value between food grown in poor, worn out soil and food grown in rich soil	1	2	V
f. Many foods lose a lot of their value for health because they are shipped so far and stored so long	1	2	V
g. Food grown with chemical fertilizers is just as healthful as food grown with natural fertilizers	1	2	V

(LEAVE CARD 3 WITH RESPONDENT FOR Q's 27 THROUGH 33, AND ASK EVERYONE)

27. Have you ever eaten any particular food because of your beliefs about these statements?

	Yes	1
(SKIP TO Q.31)	No	2

28. What foods were those?

29. Which of the statements on the card refer to your reasons for using these foods? Just read the letter next to your reasons. (CIRCLE AS MANY AS APPLY)

a.	1
b.	2
c.	3

d.	4
e.	5
f.	6
g.	7

30. Were any of the foods you used labeled "organic" or "natural" foods or bought at a special health food store?

Yes	1
No	2

31. Is there any particular food you have not eaten because of your beliefs about these statements?

	Yes	1
(SKIP TO Q.33)	No	2

32. What foods are those?

33. Which of the statements on the card refer to your reasons for not using these foods? Just read the letters next to your reasons. (CIRCLE AS MANY AS APPLY)

a.	1	d.	4
b.	2	e.	5
c.	3	f.	6
		g.	7

34. I'll read some more statements; tell me if you think each one is true, or not.

	True	False	Don't Know
a. Anyone in this country who eats balanced meals can get enough vitamins in his regular food	1	2	V
b. If people feel tired and run down they probably need more vitamins or minerals	1	2	V
c. Older people need about the same amount of vitamins as young adults	1	2	V
d. People who eat a variety of available foods every day can get all the vitamins and minerals they need	1	2	V
e. Many diseases, even arthritis and cancer, are partly caused by a lack of vitamins and minerals	1	2	V
f. People can protect their health if they take <u>more</u> vitamins than they normally need	1	2	V

35. Now I'll read some statements about reducing, or losing weight; tell me if you think each one is true, or not.

	True	False	Don't Know
a. People can reduce their weight substantially by massage	1	2	V
b. People can reduce their weight substantially by a lot of sweating	1	2	V
c. People can reduce their weight substantially by taking special products available without a prescription to control their appetite	1	2	V
d. People who want to reduce should eat more fats and less sugar and starches than they usually eat	1	2	V
e. People can reduce their weight substantially by staying on their regular food and using artificial sweeteners instead of sugar, or drinking only diet soft drinks	1	2	V
f. The only way to reduce weight substantially is to eat less food than the body will use up	1	2	V
g. People who want to lose weight should keep up with the latest diets published in magazines	1	2	V
h. Diets wouldn't be published unless they had been tested and proven to work	1	2	V

36. Have you ever been concerned with reducing your weight?

(SKIP TO Q.38)	Yes	1
	No	2

37. Have you ever been concerned with keeping from gaining weight?

	Yes	1
(SKIP TO Q.81)	No	2

38. (SHOW CARD 4) Which of these things have you ever done to control your weight?

(ASK Q's 39-42)	Used the liquid diets or things that take the place of a whole meal	1
(ASK Q's 43-48)	Medicine or a special preparation to help control your appetite	2
(ASK Q's 49-55)	Medicine or a special preparation to get rid of weight without your changing what you ate	3
(ASK Q's 56-61)	Mechanical or electrical massager or vibrator	4
(ASK Q's 62-67)	A machine that exercised you without any effort, like an electric bicycle	5
(ASK Q's 68-73)	Anything to make you sweat to lose weight	6
(SKIP TO Q. 74)	None of these things	7

(ASK IF "1" IN Q.38 IS CIRCLED)

39. How does using the liquid diets or meal replacements help to control your weight?

40. When you were using any of these meal replacements, how often was it usually:

Every day or nearly every day,	1
Several times a week,	2
A few times a month, or	3
A few times a year?	4

41. How long ago was the last time you used any of these meal replacements?

Using now	00
Less than one year ago	0V

(RECORD NUMBER) # of years ago

42. How strongly would you say you believed those meal replacements would help you control your weight? Would you say:

You strongly believed they would help, or	1
You just thought they were worth a try?	2

(ASK IF "2" IN Q.38 IS CIRCLED)

43. (SHOW CARD 1) Which, if any, of these people who give a health service recommended the medicine or special preparation to control your appetite? (CIRCLE AS MANY AS APPLY)

(READ IF THIS IS THE FIRST TIME CARD 1 IS SHOWN)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitropath	8
Some other person who gives a health service (SPECIFY:)	9
(DO NOT READ) No one who gives a health service	0

44. (ASK IF RESPONDENT HAS USED ANY APPETITE CONTROL PRODUCT THAT WAS NOT RECOMMENDED BY M.D. OR OSTEOPATH - SEE Q.43) How strongly would you say you believed in the product you bought, without a prescription, to control your appetite? Would you say:

You strongly believed it would help, or	1
You just thought it was worth a try?	2

-293-

45. (SHOW CARD 2) Which, if any, of the following have had anything to do with your use of the medicine or special preparation to control your appetite? (CIRCLE AS MANY AS APPLY BELOW)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

46. How long ago was the last time you used it to control your appetite?

Using now	00
Less than one year ago	0V

(RECORD NUMBER) # of years ago

47. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND CIRCLE CODE IN ONE BOX ONLY)

<u> </u> days	1
<u> </u> # of weeks	2
<u> </u> months, or	3
<u> </u> years	4

48. Does/Did it control your appetite?

Yes	1
No	2
Don't know, maybe	V

49. (ASK IF "3" IN Q.38 IS CIRCLED)
 (SHOW CARD 1) Which, if any, of these people who give a health service recommended the medicine or special preparation to get rid of weight without changing what you ate? (CIRCLE AS MANY AS APPLY)

(READ IF THIS IS THE FIRST TIME CARD 1 IS SHOWN)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitropath	8
Some other person who gives a health service (SPECIFY:)	9
(DO NOT READ) No one who gives a health service	0

50. (SHOW CARD 2) Which, if any, of the following have had anything to do with your use of the medicine or special preparation to get rid of weight without changing what you ate? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

51. (ASK IF RESPONDENT HAS USED ANY PRODUCT THAT WAS NOT RECOMMENDED BY M.D. OR OSTEOPATH - SEE Q.49) How strongly would you say you believed in the product you bought, without a prescription, to help you reduce without changing what you ate? Would you say:

You really believed it would help, or	1
You just thought it was worth a try?	2

52. How long ago was the last time you used medicine or a preparation to reduce without changing what you ate?

Using now	00
Less than one year ago	0V
(RECORD NUMBER)	# of years ago

53. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

of

days	1
weeks	2
months, or	3
years	4

54. Does/Did it cause you to lose more than a few pounds?

Yes	1
No	2
Don't know, maybe	V

(SKIP TO Q.56)

55. Did you later gain back the weight you lost?

Yes	1
No	2

(ASK IF "4" IN Q.38 IS CIRCLED)

56. Did you or anyone in your family buy the massager or vibrator you used to lose weight?

Yes	1
No	2

57. How long ago was the last time you used a massager or vibrator to lose weight?

Using now	00
Less than one year ago	0V
(RECORD NUMBER)	# of years ago

58. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

of

days	1
weeks	2
months, or	3
years	4

59. Does/Did it cause you to lose more than a few pounds?

(SKIP TO Q.61)	Yes	1
	No	2
	Don't know, maybe	V

60. Did you later gain back the weight you lost?

Yes	1
No	2

61. How strongly would you say you believed the massager or vibrator would help you lose weight? Would you say:

You really believed it would help, or	1
You just thought it was worth a try?	2

(ASK IF "5" IN Q.38 IS CIRCLED)

62. Did you or anyone in your family buy the exercising machine that worked without your having to make an effort?

Yes	1
No	2

63. How long ago was the last time you used such an exercising machine?

Using now	00
Less than one year ago	0V

(RECORD NUMBER) # of years ago

64. For how long (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

of

days	1
weeks	2
months, or	3
years	4

65. Does/Did it cause you to lose more than a few pounds?

(SKIP TO Q.67)	Yes	1
	No	2
	Don't know, maybe	V

66. Did you later gain back the weight you lost?

Yes	1
No	2

67. How strongly would you say you believed the effortless exercising machine would help you lose weight? Would you say:

You really believed it would help, or	1
You just thought it was worth a try?	2

(ASK IF '6" IN Q.38 IS CIRCLED)

68. What was it you used to make you sweat to lose weight?

Steam cabinet, steam bath, sauna bath	1
Special clothing	2
Other (SPECIFY:)	3

69. How long ago was the last time you used it to lose weight?

Using now	00
Less than one year ago	0V
(RECORD NUMBER)	# of years ago

70. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND CIRCLE CODE IN ONE BOX ONLY)	# of	days	1
		weeks	2
		months, or	3
		years	4

71. Does/Did it cause you to lose more than a few pounds?

(SKIP TO Q.73)	Yes	1
	No	2
	Don't know, maybe	V

-298-

72. Did you later gain back the weight you lost?

Yes	1
No	2

73. How strongly would you say you believed this way of causing sweating would help you lose weight? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

74. Did you go on a reducing diet anytime during the past three years?

Yes	1
(SKIP TO Q.81.) No	2

75. How many pounds were you trying to lose?

# of pounds	
-------------	--

76. Did you go on a reducing diet more than once in the past three years?

Yes	1
(SKIP TO Q.78) No	2

77. How many times did you go on a diet?

# of times	
------------	--

78. Are you on a reducing diet now?

Yes	1
No	2

79. During these past three years, did a medical doctor advise you to go on a reducing diet?

Yes	1
No	2

80. Did a medical doctor recommend a diet for you to follow?

Yes	1
No	2

81. Now I'll ask some questions about bowel movements. You tell me if you think these statements are true, or not.

(IF "FALSE,"
SKIP TO Q.82)

	True	False	Don't know
a. People should have a bowel movement every day for good health	1	2	V
b. People should do something regularly to help with bowel movements	1	2	V

82. Do you ever do anything to help with bowel movements?

Yes	1
(SKIP TO Q.87) No	2

83. How often do you do this? Would you say:

Every day,	1
Nearly every day	2
Once or twice a week,	3
Once or twice a month, or	4
Less than once a month?	5

84. What is it you usually do to help with bowel movements?

Laxative	1
Enema	2
Suppository	3
Special or certain foods	4
Other (SPECIFY:)	0

85. (SHOW CARD 1) Which, if any, of these people who give a health service advised you to help with bowel movements in the way you do? (CIRCLE AS MANY AS APPLY)

(READ IF THIS IS THE FIRST TIME CARD 1 IS SHOWN)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitropath	8
Some other person who gives a health service (SPECIFY:)	9
(DO NOT READ) No one who gives a health service	0

-300-

86. (SHOW CARD 2) Which, if any, of the following have had anything to do with your practices for regulating bowel movements? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	9
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

87. Now I'll ask some questions about medicine you might use. We're interested now only in medicine you use on your own, not medicine that a doctor advised or prescribed for you. Do you ever use medicine on your own for: (READ THE LIST OF AILMENTS BELOW AND CIRCLE IN COL. 1 AS MANY AS APPLY)

(FOR EACH PROBLEM CIRCLED IN Q.87 ASK, IN ORDER, Q's 88 AND 89)

88. For how long a time do you usually go on using medicine on your own for (PROBLEM)? (RECORD NUMBER IN APPROPRIATE PART OF COL. 2 BELOW)

89. What is the longest period of time you ever used medicine for (PROBLEM) without advice from a doctor? (RECORD NUMBER IN APPROPRIATE PART OF COL. 3 BELOW)

	Col. 1	Col. 2				Col. 3			
	Q. 87	Q. 88				Q. 89			
		Days (1)	Weeks (2)	Months (3)	Years (4)	Days (1)	Weeks (2)	Months (3)	Years (4)
Sore throat,	1								
Coughs,	2								
Sinus trouble,	3								
Head colds,	4								
Hay fever,	5								
Skin problems,	6								
Helping you sleep, or	7								
Upset stomach or acid stomach?	8								

- 301 -

90. Now I'll ask about some health problems. Have you ever had arthritis, or rheumatism, or any similar ailment?

(IF "NO" TO ALL,
SKIP TO Q.133)

(IF "YES"
SKIP TO Q.92)

	Yes	No
Arthritis,	1	*
Rheumatism,	2	*
Other (SPECIFY:)	3	*

91. (SHOW CARD 1) Which, if any, of these people who give a health service told you you had arthritis/rheumatism? (CIRCLE AS MANY AS APPLY)

(READ IF THIS
IS THE FIRST
TIME CARD 1
IS SHOWN)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitropath	8
Some other person who gives a health service (SPECIFY:)	9
(DO NOT READ) No one who gives a health service	0

92. (LEAVE CARD 1 WITH RESPONDENT AND ASK:) What kinds of health service persons have you gone to for advice or treatment of your (AILMENT)? (CIRCLE AS MANY AS APPLY IN COL. 1 BELOW. IF NONE, SKIP TO Q.95)

(FOR EACH HEALTH SERVICE PERSON USED, ASK Q's 93 AND 94 IN ORDER)

93. Taking all (NAME THE HEALTH SERVICE PERSON) together, about how many times have you gone to a (NAME THE HEALTH SERVICE PERSON) for your (AILMENT)? (RECORD NUMBER IN COL. 2 BELOW)

94. Did the (NAME THE HEALTH SERVICE PERSON) give you any relief for your (AILMENT)? (RECORD RESPONSES IN COL. 3 BELOW)

	Col.1	Col.2	Col.3		
	Q.92	Q.93	Q.94		Don't Know; Maybe
		Number of times	Yes	No	
Chiropractor	1		1	2	V
Homeopath	2		1	2	V
Medical doctor	3		1	2	V
Naturopath	4		1	2	V
Nurse	5		1	2	V
Osteopath	6		1	2	V
Pharmacist	7		1	2	V
Vitropath	8		1	2	V
Some other person who gives a health service (SPECIFY:)	9		1	2	V

-302-

95. We're interested in the medicine you have used for your (AILMENT). Some medicine is only supposed to help with pain for a little while. Have you used any medicine that was supposed to do more, to clear up the cause of your (AILMENT) or cure it completely?

	Yes	1
(SKIP TO Q.105)	No	2

96. What were those medicines?

97. (SHOW CARD 1) Was any of the medicine that was supposed to cure your (AILMENT) recommended or prescribed by someone who gives a health service?

	Yes	1
(SKIP TO Q.102)	No	2

98. (LEAVE CARD 1 WITH RESPONDENT AND ASK:) Who recommended or prescribed it?
(CIRCLE AS MANY AS APPLY)

(READ IF THIS IS THE FIRST TIME CARD 1 IS SHOWN)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitroopath	8
Some other person who gives a health service (SPECIFY:)	9

99. Did any of that medicine work?

	Yes	1
	No	2
(SKIP TO Q.101)	Don't know; maybe	V

(IF MORE THAN ONE PRACTITIONER WAS INDICATED IN Q.98, ASK Q.100; OTHERWISE SKIP TO Q.101)

100. Who recommended or prescribed the medicine that worked? (CIRCLE AS MANY AS APPLY)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitropath	8
Some other person who gives a health service (SPECIFY:)	9

101. Was any of the medicine that was supposed to cure completely your (AILMENT) a product that you bought on your own, without a recommendation or prescription from a health service person?

	Yes	1
(SKIP TO Q.105)	No	2

102. (SHOW CARD 2) Which, if any, of the following had anything to do with your use of this non-prescription medicine that was supposed to cure completely your (AILMENT)? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

304-

How strongly would you say you believed in this (AILMENT) cure that you bought without a prescription? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

104. Did any of the medicine that you bought on your own that was supposed to cure your (AILMENT) really cure you?

Yes	1
No	2
Don't know; maybe	V

105. (SHOW CARD 5) Have you ever done any of these things for your (AILMENT) .:

(ASK Q's 106-109)	Changed your eating habits or used special foods,	1
(ASK Q's 110-113)	Used something that was supposed to lubricate your joints,	2
(ASK Q's 114-117.)	Used a massager or vibrator,	3
(ASK Q's 118-122)	Used any other kind of machine or equipment, or	4
(ASK Q's 123-127)	Wore anything, such as special clothing, bracelets, or other jewelry?	5
(SKIP TO Q. 128)	None of these	6

(ASK IF "1" IN Q.105 IS CIRCLED)

106. (SHOW CARD 2) Which, if any, of the following had anything to do with your treating your (AILMENT) with your eating habits? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

107. For how long a time (have you tried/did you try) that (the last time you tried it)?

(RECORD # AND CIRCLE CODE IN ONE BOX ONLY)	_____	# of	days	1
			weeks	2
			months, or	3
			years	4

108. How strongly would you say you believed you could help your (AILMENT) with eating habits or special food? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

109. Did it help you?

Yes	1
No	2
Don't know; maybe	V

(ASK IF "2" IN Q.105 IS CIRCLED)

110. (SHOW CARD 2) Which, if any, of the following had anything to do with you treating your (AILMENT) to lubricate your joints? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

111. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

 / of

days	1
weeks	2
months, or	3
years	4

112. How strongly would you say you believed you could help your (AILMENT) with the product to lubricate your joints? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

113. Did it help you?

Yes	1
No	2
Don't know; maybe	V

(ASK IF "3" IN Q.105 IS CIRCLED)

114. (SHOW CARD 2) Which, if any, of the following had anything to do with your using a massager or vibrator for your (AILMENT)? (CIRCLE AS MANY AS APPLY BELOW)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesmen who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

115. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

 # of

days	1
weeks	2
months, or	3
years	4

116. How strongly would you say you believed you could help your (AILMENT) with the massager or vibrator? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

117. Did it help you?

Yes	1
No	2
Don't know; maybe	V

(ASK IF "4" IN Q.105 IS CIRCLED)

118. What other machine or equipment did you use for your (AILMENT) ?

119. (SHOW CARD 2) Which, if any, of the following had anything to do with your using this (MACHINE OR EQUIPMENT) for your (AILMENT) ? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

(DO NOT READ)

-308-

120. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

 of

days	1
weeks	2
months, or	3
years	4

121. How strongly would you say you believed you could help your (AILMENT) with (MACHINE OR EQUIPMENT - SEE Q.118)? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

122. Did it help you?

Yes	1
No	2
Don't know; maybe	V

(ASK IF "5" IN Q.105 IS CIRCLED)

123. What did you wear for your (AILMENT) ?

124. (SHOW CARD 2) Which, if any, of the following had anything to do with your wearing (ITEM) for your (AILMENT)?

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mall advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

125. For how long a time (have you used/did you use) it (the last time you used it)?

(RECORD # AND
CIRCLE CODE IN
ONE BOX ONLY)

 # of

days

1

weeks

2

months, or

3

years

4

126. How strongly would you say you believed you could help your (AILMENT) with (PRODUCT - SEE Q.123)? Would you say:

You really believed it would help you, or

1

You just thought it was worth a try?

2

127. Did it help you?

Yes

1

No

2

Don't know;
maybe

V

128. Is there anything you tried that we haven't covered that was supposed to cure your (AILMENT), to clear it up completely?

Yes

1

(SKIP TO Q.133)

No

2

129. What was it?

(SHOW CARD 2) Which, if any, of the following had anything to do with your trying this? (CIRCLE AS MANY AS APPLY BELOW)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

31. For how long a time (have you tried/did you try) it (the last time you tried it)?

(RECORD # AND CIRCLE CODE IN ONE BOX ONLY)

# of	days	1
	weeks	2
	months, or	3
	years	4

32. Did it help you?

Yes	1
No	2
Don't know; maybe	V

33. Have you ever had cancer?

(SKIP TO Q.137)	Yes	1
	No	2

34. Since you were an adult -- say 18 years old -- have any of your relatives ever had cancer?

	Yes	1
(SKIP TO Q.156)	No	2

135. Did you have anything to do with arranging for the treatment or making decisions about the case?

	Yes	1
(SKIP TO Q.156)	No	2

136. Who was this relative?

Husband	1
Wife	2
Mother	3
Father	4
Brother	5
Sister	6
Son	7
Daughter	8
Other (SPECIFY:)	0

137. (SHOW CARD 1) Which, if any, of these people who give a health service said it was cancer? (CIRCLE AS MANY AS APPLY)

(READ IF THIS IS THE FIRST TIME CARD 1 IS SHOWN)

Chiropractor	1
Homeopath	2
Medical doctor	3
Naturopath	4
Nurse	5
Osteopath	6
Pharmacist	7
Vitropath	8
Some other person who gives a health service (SPECIFY:)	9
(DO NOT READ) No one who gives a health service	0

-312-

138. (LEAVE CARD 1 WITH RESPONDENT AND ASK:) What kinds of health service persons were used for advice or treatment of the cancer? (CIRCLE AS MANY AS APPLY IN COL. 1 BELOW)
(FOR EACH HEALTH SERVICE PERSON USED, ASK Q's 139 AND 140 IN ORDER)
139. Taking all (NAME THE HEALTH SERVICE PERSON) together, about how many times did you/he/she go to a (NAME THE HEALTH SERVICE PERSON) for the cancer? If you/he/she saw (NAME THE HEALTH SERVICE PERSON) in a hospital, count the whole stay in the hospital as one. (RECORD NUMBER IN COL. 2 BELOW)
140. Did the (NAME THE HEALTH SERVICE PERSON) help the cancer? (RECORD RESPONSES IN COL. 3 BELOW)

	Col.1	Col.2	Col.3		
	Q.138	Q.139	Q.140		
		Number of times	Yes	No	Don't Know; Maybe
Ciropractor	1		1	2	V
Homeopath	2		1	2	V
Medical doctor	3		1	2	V
Naturopath	4		1	2	V
Nurse	5		1	2	V
Osteopath	6		1	2	V
Pharmacist	7		1	2	V
Vitropath	8		1	2	V
Some other person who gives a health service (SPECIFY:)	9		1	2	V

141. Was any medicine that was used for the cancer something you/he/she bought on your/his/her own, without a recommendation or prescription from one of the health service persons you/he/she went to?

	Yes	1
(SKIP TO Q.146)	No	2

142. Was any of that medicine supposed to do more than help with pain for a little while, was it supposed to clear up the cause of the cancer or cure it?

	Yes	1
(SKIP TO Q.146)	No	2

143. (SHOW CARD 2) Which, if any, of the following had anything to do with the use of this medicine that was not recommended by a health service person and was supposed to cure the cancer? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	v
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

144. How strongly did you believe the medicine bought without a prescription would cure the cancer? Would you say:

You really <u>believed</u> in it, or	1
You just <u>hoped</u> it would help?	2

145. Did any of that medicine you/he/she bought on your/his/her own that was supposed to cure the cancer really cure it?

Yes	1
No	2
Don't know; maybe	v

146. Was there any change in eating habits or use of special food that was supposed to help the cancer?

	Yes	1
(SKIP TO Q.149)	No	2

-314-

147. (SHOW CARD 2) Which, if any, of the following had anything to do with the treatment of the cancer with eating habits or food? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

148. Did it help the cancer?

Yes	1
No	2
Don't know; maybe	V

149. Were any machines used that were not part of the treatment of one of the health service persons you/he/she went to?

	Yes	1
(SKIP TO Q.152)	No	2

- 315 -

150. (SHOW CARD 2) Which, if any, of the following had anything to do with the use of this machine? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

151. Did it help the cancer?

Yes	1
No	2
Don't know; maybe	V

152. Was anything we haven't covered done for the cancer that was not part of the treatment of one of the health service persons you/he/she went to?

Yes	1
(SKIP TO Q.156) No	2

153. What was it?

154. (SHOW CARD 2) Which, if any, of the following had anything to do with the use of this treatment? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

155. Did it help the cancer?

Yes	1
No	2
Don't know; maybe	V

156. Have you ever had:

	Yes	No
Asthma,	1	*
Allergies,	2	*
Heart trouble,	3	*
High blood pressure,	4	*
Diabetes, or	5	*
Hemorrhoids?	6	*

-3/7

Chiropractor	1	1		1	2	V	1	1		1	1		1	2	V	1	1		1	1		1	2	V	1	1																
Homeopath	2	2		1	2	V	2	2		2	2		1	2	V	2	2		2	2		1	2	V	2	2																
Medical doctor	3	3		1	2	V	3	3		3	3		1	2	V	3	3		3	3		1	2	V	3	3																
Naturopath	4	4		1	2	V	4	4		4	4		1	2	V	4	4		4	4		1	2	V	4	4																
Nurse	5	5		1	2	V	5	5		5	5		1	2	V	5	5		5	5		1	2	V	5	5																
Osteopath	6	6		1	2	V	6	6		6	6		1	2	V	6	6		6	6		1	2	V	6	6																
Pharmacist	7	7		1	2	V	7	7		7	7		1	2	V	7	7		7	7		1	2	V	7	7																
Vitropath	8	8		1	2	V	8	8		8	8		1	2	V	8	8		8	8		1	2	V	8	8																
Other person who gives health service (SPECIFY:)	9	9		1	2	V	9	9		9	9		1	2	V	9	9		9	9		1	2	V	9	9																
No one who gives a health service	0	0					0	0		0	0					0	0		0	0					0	0																
Q. 162							Yes	1							Yes	1							Yes	1																		
							No	2							No	2							No	2																		
Q. 163	(IF NO, SKIP TO NEXT AILMENT OR Q. 167)						Yes	1	(IF NO, SKIP TO NEXT AILMENT OR Q. 167)						Yes	1	(IF NO, SKIP TO NEXT AILMENT OR Q. 167)						Yes	1																		
							No	2							No	2							No	2																		
Q. 165	Newspaper or magazine advertisements												Newspaper or magazine advertisements												Newspaper or magazine advertisements																	
							1												1												1											
	TV or radio commercials												TV or radio commercials												TV or radio commercials																	
							2												2												2											
	Medical columns in newspapers or magazines												Medical columns in newspapers or magazines												Medical columns in newspapers or magazines																	
							3												3												3											
	Books												Books												Books																	
							4												4												4											
	Lectures												Lectures												Lectures																	
							5												5												5											
	Magazine articles												Magazine articles												Magazine articles																	
							6												6												6											
	Door-to-door salesmen												Door-to-door salesmen												Door-to-door salesmen																	
							7												7												7											
	Salesmen at fairs												Salesmen at fairs												Salesmen at fairs																	
							8												8												8											
	Store displays												Store displays												Store displays																	
							0												0												0											
	Mail advertising												Mail advertising												Mail advertising																	
							V												V												V											
	Salesman who called on telephone												Salesman who called on telephone												Salesman who called on telephone																	
							1												1												1											
	Friends												Friends												Friends																	
							2												2												2											
	Relatives												Relatives												Relatives																	
							3												3												3											
(DO NOT READ)	None of the above												None of the above												None of the above																	
							0												0												0											
Q. 166							Believed												Believed												Believed											
							1												1												1											
							Worth a try												Worth a try												Worth a try											
							2												2												2											

167. I have been asking about a lot of specific health problems. Now I'd like to know more about the kinds of people you have ever gone to. For any case we haven't covered yet -- that is, something other than arthritis, rheumatism, cancer, asthma, allergies, heart trouble, high blood pressure, diabetes or hemorrhoids -- have you ever gone to a:

	Yes	No
Chiropractor,	1	*
Homeopath,	2	*
Naturopath,	3	*
Osteopath, or	4	*
Vitropath?	5	*
Some other person who is not a Medical Doctor (SPECIFY:)	6	*

168. (IF GONE TO A CHIROPRACTOR IN Q.167, ASK:) For what health conditions have you gone to a chiropractor?

169. Has your hearing ever been a problem for you?

	Yes	1
(SKIP TO Q.185)	No	2

170. Have you ever used any medicine to improve your hearing?

	Yes	1
(SKIP TO Q.175)	No	2

171. Was any of the medicine something you got without a prescription from a medical doctor?

	Yes	1
(SKIP TO Q.175)	No	2

320-

172. Was this medicine supposed to do something other than remove wax?

Yes	1
No	2

173. (SHOW CARD 2) Which, if any, of the following had anything to do with your buying this medicine? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesman	7
Salesman at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

174. How strongly would you say you believed this medicine would help your hearing?
Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

175. Have you ever bought a hearing aid?

	Yes	1
(SKIP TO Q.185)	No	2

176. Have you ever bought a hearing aid that was recommended by a medical doctor?

	Yes	1
(SKIP TO Q.185)	No	2

177. How many hearing aids recommended by medical doctors have you bought?

NUMBER	
--------	--

178. Did (that/any of those) hearing aid(s) help your hearing?

Yes	1
No	2
Don't know maybe	V

179. Were you satisfied with the comfort of (that/any of those) hearing aid(s)?

Yes	1
No	2
Don't know; maybe	V

180. Have you ever bought a hearing aid without a recommendation by a medical doctor?

	Yes	1
(SKIP TO Q.185)	No	2

181. How many hearing aids of that kind have you bought?

NUMBER	
--------	--

182. (SHOW CARD 2) Which, if any, of the following had anything to do with your buying this/these hearing aid(s)? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	V
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

183. Did (that/any of those) hearing aid(s) help your hearing?

Yes	1
No	2
Don't know; maybe	V

184. Were you satisfied with the comfort of (that/any of those) hearing aid(s)?

Yes	1
No	2
Don't know; maybe	V

-322-

85. Have you ever bought anything, without a prescription, that was advertised to help you quit smoking or cut down smoking?

	Yes	1
(SKIP TO Q.190)	No	2

86. Was this ordinary candy or gum, or was it some special product for quitting smoking?

(SKIP TO Q.190)	Candy or gum	1
	Special product	2

87. (SHOW CARD 2) Which, if any, of the following had anything to do with you buying this product to help quit smoking? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesmen at fairs	8
Store displays	0
Mail advertising	v
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

88. How strongly would you say you believed this product would help you quit smoking? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

89. Did it help you?

Yes	1
No	2
Don't know; maybe	v

185. Have you ever bought anything, without a prescription, that was advertised to help you quit smoking or cut down smoking?

	Yes	1
(SKIP TO Q.190)	No	2

186. Was this ordinary candy or gum, or was it some special product for quitting smoking?

(SKIP TO Q.190)	Candy or gum	1
	Special product	2

187. (SHOW CARD 2) Which, if any, of the following had anything to do with you buying this product to help quit smoking? (CIRCLE AS MANY AS APPLY)

Newspaper or magazine advertisements	1
TV or radio commercials	2
Medical columns in newspapers or magazines	3
Books	4
Lectures	5
Magazine articles	6
Door-to-door salesmen	7
Salesman at fairs	8
Store displays	0
Mail advertising	v
Salesman who called on telephone	1
Friends	2
Relatives	3
(DO NOT READ) None of the above	0

188. How strongly would you say you believed this product would help you quit smoking? Would you say:

You really believed it would help you, or	1
You just thought it was worth a try?	2

189. Did it help you?

Yes	1
No	2
Don't know; maybe	v

- 324 -

190. Do you belong to any organizations that are concerned with questions of health?

	Yes	1
(SKIP TO Q.192)	No	2

191. What are they?

192. Do you read any magazines regularly that are concerned almost entirely with questions of health?

	Yes	1
(SKIP TO Q.194)	No	2

193. What are they?

194. How would you compare your health with that of most people your age? Would you say your health is:

Much better,	1
A little better,	2
About the same,	3
A little worse, or	4
Much worse?	5

195. Just how much would you say you worry about your health? Would you say:

A great deal of the time,	1
Quite often,	2
Once in awhile, or	3
Hardly ever?	4

325-

196. Do you worry more about your health than other people your age, or less? Would you say you worry:

A lot more than other people,	1
A little more than others,	2
About the same as others,	3
A little less than others,	4
A lot less than other people?	5

197. How long has it been since you saw a doctor?

(RECORD # AND CIRCLE CODE IN ONE BOX ONLY)

 # of days 1

 weeks 2

 months 3

 years 4

198. Have you ever changed doctors because you were dissatisfied with the doctor you were going to?

Yes	1
No	2

(SKIP TO Q.200)

199. How many times have you ever done that?

 times

200. Suppose you were looking for a new doctor, and you were trying to find out some things that would help you choose one. I'll read a list of things, and you tell me if each one would make you have more, or less, confidence in a doctor you were considering:

	More confidence	Less confidence	Don't know
a. Your old doctor recommended him	1	2	V
b. You saw an advertisement for him in a newspaper	1	2	V
c. He <u>promised</u> or <u>guaranteed</u> to help you or give your money back	1	2	V
d. A good friend recommended him	1	2	V
e. He told you that <u>he</u> could help you, but no one else could	1	2	V
f. You learned he had some secret or special treatments that no one else had	1	2	V
g. He had a diploma on the wall that said "Doctor of Health Scientology."	1	2	V

-326-

201. Now, please think about all the doctors you have ever gone to, or anyone else you have ever gone to for health care...

	Yes	No
a. Have you ever gone to anyone who said he had a secret or special treatment?	1	2
b. Have you ever gone to anyone who advertised his services?	1	2
c. Have you ever gone to anyone who told you that he was the only one who could help you?	1	2
d. Have you ever gone to anyone who <u>promised</u> or <u>guaranteed</u> to help you, or give you your money back?	1	2

202. Sometimes a person sees an ad, or commercial, or label for a medicine that interests him, and that is all he has to go by. I'll read some things that are sometimes included in medicine advertising or labels, and you tell me how much they would influence you. (SHOW CARD 6) Tell me whether each thing would give you a great deal more faith in the medicine, a little more faith, would have no influence at all, or would reduce your faith in the medicine.

	A Great Deal More Faith	A Little More Faith	No Influence	Reduce Faith
a. The medicine is made by a well-known company	4	3	2	1
b. The medicine is supposed to help <u>many</u> conditions or diseases, not just one	4	3	2	1
c. Some famous person testifies that he was helped by the medicine	4	3	2	1
d. Many ordinary people testify that they were helped by the medicine	4	3	2	1
e. A doctor is quoted as saying the medicine is good	4	3	2	1
f. The medicine not only relieves a problem, it <u>cures</u> it permanently	4	3	2	1
g. You can get a doctor's diagnosis by mail	4	3	2	1
h. The medicine is brand new	4	3	2	1

203. Suppose you had something wrong with your health, and a friend who had the same problem told you about some medicine he bought that helped him. Suppose you asked your doctor, and he said that that medicine was worthless. Do you think you would try it anyhow, since it seemed to help your friend?

Yes	1
No	2
Maybe	V

204. Suppose you had a health problem and you bought some medicine for it in the drug store, and the medicine really seemed to make you feel better. Suppose you mentioned it to a doctor later, and he said the medicine was harmless, but it couldn't possibly help your ailment. What would you do:

	Go on using it,	1
	Stop using it?	2
(DO NOT READ)	Don't know	V

205. Suppose you had (AILMENT) and you found some medicine that controlled it, as long as you kept taking the medicine. How long would you wait before you asked a doctor about it? (ASK FOR EACH AILMENT BELOW)

	Days (1)	Weeks (2)	Months (3)
a. Sore throat			
b. Cough			
c. Acid stomach			
d. Headaches			
e. Skin rash			

206. We would like your opinion about something that sometimes happens. Suppose somebody comes up with a brand new medicine for cancer. Most scientists and doctors say it is worthless -- based on their analysis of and experience with it, there is no way it can cure cancer. But a few doctors use it, and they have patients who say it actually cured their cancer and saved their lives.

a. Who is most likely right:

	The ones who say it is worthless, or	1
	The people who say it cured them?	2
(DO NOT READ)	Don't know	V

b. Do you think the sale of the medicine should be stopped by law?

	Yes	1
	No	2
	Don't know	V

207. Which of these statements seems more true to you:

	That good health is a natural thing, or	1
	That a person has to work at it constantly to have good health?	2

208. Which of these statements seems more true to you?

	Good or bad health primarily results from the body we are born with, or	1
	How we take care of ourselves is more important than the body we are born with?	2

-328-

99. Now, I'll read some statements, and for each one tell me whether you agree very much, agree a little, disagree a little, or disagree very much. (SHOW CARD 7)

	Agree very much	Agree a little	Disagree a little	Disagree very much
a. For most people who have bad health, a major reason is they don't eat right. Do you...	4	3	2	1
b. Most of the things that advertisements say about medicines and health aids must be true, or they wouldn't be allowed to say them.	4	3	2	1
c. Most doctors put helping their patients above everything else	4	3	2	1
d. A lot of doctors are only interested in making money	4	3	2	1
e. If a medicine doesn't help you right away, it probably isn't going to do any good at all	4	3	2	1
f. There are a lot of old-fashioned remedies around that the doctors don't pay enough attention to	4	3	2	1
g. Most of the things that people buy in drug stores to treat themselves are practically worthless	4	3	2	1
h. The medical profession concentrates too much on science and not enough on people	4	3	2	1
i. Despite all the scientific advances, doctors used to help their patients more than they do now	4	3	2	1
j. Medical doctors stick too much to the "tried and true"; they are too much against new or different ways	4	3	2	1
k. The government doesn't have any business deciding what kinds of medicines are legal	4	3	2	1
l. Community water supplies should be fluoridated	4	3	2	1
m. The law should require that children must be vaccinated or inoculated against contagious diseases	4	3	2	1
n. It is nearly impossible to know in advance whether or not a medicine will help you because what works for one person won't work for another	4	3	2	1
o. I don't care so much about a doctor's manner with his patients as long as he is a skillful doctor	4	3	2	1

I have just a few questions for our survey tabulation purposes.

210. How many persons live in this household including yourself?

NUMBER: _____

211. How many of these, if any, are children under 18 years old?

NUMBER: _____

212. What is your occupation?

213. Who is the head of the household?

(SKIP TO Q.215)	Respondent	1
	Respondent's spouse	2
	Other (SPECIFY:)	0

214. What is the household head's occupation?

215. (SHOW CARD 8) When you were growing up, between the ages of 6 and 16, where did you live most of the time?

On a farm	1
In the country but not on a farm	2
In a small town (under 10,000 population)	3
In a small city (10,000 to 50,000 population)	4
In a large city (50,000 or more population)	5
In a suburb of a large city	6

216. (RECORD WITHOUT ASKING IF ANSWER IS OBVIOUS. IF ANY DOUBT, SHOW CARD 8 AND ASK:) Where would you say that you live now?

On a farm	1
In the country but not on a farm	2
In a small town (under 10,000 population)	3
In a small city (10,000 to 50,000 population)	4
In a large city (50,000 or more population)	5
In a suburb of a large city	6

-330-

222. (SHOW CARD 9) Which letter on this card represents the total combined family income of your household for the past 12 months -- that is before taxes and other deductions?

a. Less than \$3,000	1
b. \$3,000 - \$4,999	2
c. \$5,000 - \$6,999	3
d. \$7,000 - \$9,999	4
e. \$10,000 - \$11,999	5
f. \$12,000 - \$14,999	6
g. \$15,000 and over	7

NOW GIVE THE BLUE, SELF-ADMINISTERED PAGE TO THE RESPONDENT AND GO OVER THE INSTRUCTIONS WITH HIM. WHILE IT IS BEING COMPLETED, PREPARE Q's 223 AND 224.

INSTRUCTIONS FOR PREPARING Q's 223 AND 224

While the respondent completes the self-administered page, prepare Q's 223 and 224. These questions are to be asked about each of the behaviors or practices in the following list that apply to the respondent. To know which ones apply, you must look back through the questionnaire.

The question numbers that must be consulted are printed for each item in the following list. In some cases only one question must be consulted. In some cases there are two different questions in which the behavior may have been reported. And in some cases two or more related questions are necessary to define the behavior described in the list.

Refer to the question numbers printed, and if the respondent did report the behavior, circle the letter by the item so that you will know to ask Q's 223 and 224 about it.

If none of the items apply to the respondent, circle the letter "X" at the end of the list.

-331-

(ASK Q's 223 AND 224 FOR EACH BEHAVIOR CIRCLED BEFORE GOING ON TO THE NEXT BEHAVIOR)

223. You said earlier in the interview that you (READ BEHAVIOR). To your knowledge, do most doctors and health authorities think that Is a useful thing to do, or that it is not a useful practice? (RECORD RESPONSE IN COL. 1 BELOW)

224. Suppose it were true that most doctors and health authorities thought using (PARAPHRASE STATEMENT) was not useful or of any value. If you had known that, would you probably not have done it, or would you have tried it anyway? (RECORD RESPONSE IN COL. 2 BELOW)

CONSULT Q. #:		Col. 1		Col. 2	
		Q.223		Q.224	
		Is useful	Not useful	Would have	Would not have
7 or 15a	a. Used (VITAMIN-TYPE PRODUCT) to give you extra energy	1	2	1	2
7 or 15b	b. Used (VITAMIN-TYPE PRODUCT) to prevent colds	1	2	1	2
7 or 15c	c. Used (VITAMIN-TYPE PRODUCT) to prevent or treat arthritis	1	2	1	2
7 or 15d	d. Used (VITAMIN-TYPE PRODUCT) to keep yourself feeling young	1	2	1	2
7 or 15e	e. Used (VITAMIN-TYPE PRODUCT) to prevent or treat cancer	1	2	1	2
7 or 8	f. Used (VITAMIN-TYPE PRODUCT) to make yourself <u>feel</u> better	1	2	1	2
17	g. Used natural or organic foods (DO NOT READ: more than five times)	1	2	1	2
38	h. Used something to lose weight by sweating	1	2	1	2
43	i. Used something that you didn't get through a medical doctor or osteopath to control your appetite	1	2	1	2
49	j. Used a medicine or special preparation that you didn't get through a medical doctor or osteopath to get rid of weight without changing what you ate	1	2	1	2
56	k. Bought a massager or vibrator to lose weight	1	2	1	2
62	l. Bought a machine for exercising without any effort to lose weight	1	2	1	2
83 & 84 & 85	m. Used a laxative/enema/suppository every day/nearly every day, on your own decision, without a medical doctor or osteopath's advice	1	2	1	2
97 or 98 or 101	n. Used something that you didn't get through a medical doctor or osteopath that was supposed to <u>cure</u> your (ARTHRITIS-TYPE AILMENT) completely	1	2	1	2

334

CONSULT Q. #:		Col. 1		Col. 2	
		Q.223		Q.224	
		Is useful	Not useful	Would have	Would not have
105	o. Treated your (ARTHRITIS-TYPE AILMENT) with a change in your eating habits or with special foods	1	2	1	2
105	p. Treated your (ARTHRITIS-TYPE AILMENT) with something to lubricate the joints	1	2	1	2
105	q. Used a massager or vibrator for your (ARTHRITIS-TYPE AILMENT)	1	2	1	2
123	r. Wore _____ (DO NOT READ: something other than clothing for warmth) for your (ARTHRITIS-TYPE AILMENT)	1	2	1	2
142	s. Bought or helped buy a non-prescription medicine that was supposed to cure cancer	1	2	1	2
161 or 162	t. Used medicine for your heart that you didn't get through a medical doctor or osteopath	1	2	1	2
161 or 162	u. Used medicine for your high blood pressure that you didn't get through a medical doctor or osteopath	1	2	1	2
164	v. Used medicine that you didn't get through a medical doctor or osteopath that was supposed to <u>cure</u> your asthma	1	2	1	2
164	w. Used medicine that you didn't get through a medical doctor or osteopath that was supposed to <u>cure</u> your allergy	1	2	1	2
164	x. Used medicine that you didn't get through a medical doctor or osteopath that was supposed to <u>cure</u> your diabetes	1	2	1	2
164	y. Used medicine that you didn't get through a medical doctor or osteopath that was supposed to <u>cure</u> your hemorrhoids completely	1	2	1	2
171	z. Used a medicine that you didn't get through a medical doctor that was supposed to help your hearing	1	2	1	2
180	aa. Bought a hearing aid that you didn't get through a medical doctor	1	2	1	2
186	bb. Used a special product that was supposed to help you stop smoking	1	2	1	2
	xx. None of the items apply				

-335-

225. Sometimes we decide we need more information from people than we have been able to get in a short interview. Do we have your permission to contact you again for another interview, if we find we need it?

Yes	1
No	2

(INTERVIEWER: RECORD BY OBSERVATION)

226. Sex:

Male	1
Female	2

227. Race:

White	1
Negro	2
Other (SPECIFY:)	0

It is clearly understood by the undersigned that this interview is being paid for by the United States Government. I swear that I have conducted the entire interview with the respondent whose name appears on this questionnaire at the address shown according to the instructions of National Analysts, Inc. I have signed my name hereto knowing that in the event this statement is false, my payment will be withheld and I will be responsible to reimburse National Analysts, Inc. for all costs involved, as well as being subjected to any legal action deemed necessary by the company aforesaid.

SIGNATURE: _____

-336-

Philadelphia, Pa.

June, 1969
 Budget Bureau No. 85-S68020
 Approval Expires September 30, 1969

Seg. # _____ DU # _____

When you read the statements below, you will find that some of them agree with your own opinions, and you will disagree with others. Circle the answer at the right that best expresses how you feel about each statement. Strongly Agree = SA, Agree = A, Don't know or Neutral = ?, Disagree = D, and Strongly Disagree = SD.

	1	2	3	4	5
1. Too many people in our society are just out for themselves and don't really care for anyone else.	SA	A	?	D	SD
2. The highest wisdom is continual cheerfulness.	SA	A	?	D	SD
3. There are many people who don't know what do do with their lives.	SA	A	?	D	SD
4. I have had less trouble than most.	SA	A	?	D	SD
5. Almost everyone in our society has warm, comforting relationships with his fellow human beings.	SA	A	?	D	SD
6. Every human problem can be solved and every hunger satisfied and every promise can be fulfilled if God so wills.	SA	A	?	D	SD
7. It is a good idea to always expect the worst; then you won't be disappointed whatever happens.	SA	A	?	D	SD
8. Most people are happy and know what they want out of life.	SA	A	?	D	SD
9. There's little use writing to public officials because they aren't really interested in the problems of the average man.	SA	A	?	D	SD
10. Nothing comes to pass but what fate wills.	SA	A	?	D	SD
11. I sometimes feel "just miserable" for no reason.	SA	A	?	D	SD
12. My friendships have often broken up easily without it being my fault.	SA	A	?	D	SD
13. God is powerless in the face of natural laws and to ask Him for help is to shout at the wind.	SA	A	?	D	SD
14. In spite of what some people say, the lot of the average man is getting better.	SA	A	?	D	SD
15. A complete trust in destiny or fate is the best way to prevent or remedy anxiety.	SA	A	?	D	SD
16. Nowadays a person has to live pretty much for today and let tomorrow take care of itself.	SA	A	?	D	SD
17. I almost never feel fed up.	SA	A	?	D	SD
18. I have had an awful amount of bad luck.	SA	A	?	D	SD
19. Each man controls his own existence, free from "destiny" or fate.	SA	A	?	D	SD
20. There are many people around these days whom a person knows he can count on.	SA	A	?	D	SD
21. Nothing is so foolish as to expect evil before it comes.	SA	A	?	D	SD
22. Much of my success in life is due to the way other people have helped me.	SA	A	?	D	SD
23. It is only natural to be fearful of the future.	SA	A	?	D	SD
24. I sometimes feel I don't care what happens to me.	SA	A	?	D	SD
25. As God created the world, so He can change or end it as He pleases.	SA	A	?	D	SD
26. I would call myself calm or relaxed.	SA	A	?	D	SD
27. One's fondest hopes rarely come true.	SA	A	?	D	SD

APPENDIX B
THE PERSONALITY SCALES

4. Pessimism (items 2, 7, 21, 23, 27)

Items in this scale are less concerned with how things are than with how people should assume they are. For example, a person scoring at the Optimism end of this scale does not necessarily believe that the world is especially friendly and pleasant, but he believes that people should try to be cheerful and should anticipate good rather than bad. Thus, for example, a person could agree that it is hard to find anyone to rely on, and thus score high on Purposelessness and Anomia, while also believing that it is foolish to expect the worst always, and thus score low on Pessimism. (This pattern did, in fact, occur at times, as described in the preceding chapters.)

5. Fatalistic Thinking (items 10, 15, 19)

High scores indicate a belief that events are largely a matter of fate or destiny, and a devaluing of man's ability to control events.

6. Belief in Intervention by God (items 6, 13, 25)

High scores indicate a tendency to view God as a direct and immediate influence on the world.

Scale Scoring System

The individual items had a five-point response format: strongly agree, agree, neutral, disagree, strongly disagree. Responses were scored by assigning one, two, three, four, or

Much research on susceptibility to health misrepresentations and frauds has attempted to establish relationships to personality or basic attitudinal factors. FDA personnel involved in this study reviewed the literature of previous research and isolated six personality traits that seemed of special interest, and the questionnaire items that had been used to assess them. These traits were used in the present study.

Previous research suggested that feelings of hopelessness and powerlessness might be involved in susceptibility to fallacious health practices: people with such an orientation, feeling helpless in a health crisis, might be especially attracted by the promise of a quick and easy solution. The unwillingness of legitimate physicians to guarantee a cure, for example, might be viewed by such people as one more instance of their powerlessness to control events, and as an incentive to look elsewhere for treatment.

A relationship between susceptibility to health misrepresentations and feelings of insecurity or even mild paranoia has been suggested. Again, people who believe that things usually go wrong for them may be especially attracted by the promise of an assured quick and easy solution to a health problem.

It has been suggested that people who believe that events are controlled by fate or supernatural causes are likely to engage in nonrational decision-making, and may thus be led into unorthodox health practices. A sense of optimism, of hoping for the best, can also support nonrational decision-making: if one believes it is best to "look on the bright side", harshly realistic considerations may be devalued.

Items were borrowed from previous research in these areas. The items consisted of statements with which respondents were asked to agree or disagree. From three to eight items were selected to represent each of the personality traits.

In many cases the items were edited. In their original forms, they were all worded in the same direction, that is, the presence of the trait was always indicated by agreement with the item. It is known that some people, more than others, are inclined to express agreement with nearly any proposition presented to them, so when all the items in a scale are worded in the same direction, some of the scale score differences are simply due to differences in this "acquiescence response bias". Consequently, about half of the statements in each scale were re-worded so that it was disagreement with them that indicated the presence of the trait.

The six traits are described below. The item numbers given refer to the single blue page that is included at the end of Appendix A.

- 1 and 2. Purposelessness (items 1, 3, 5, 8) and
Anomia (items 9, 14, 16, 20)

These traits are highly related to each other, since both are attempts to assess feelings of powerlessness and hopelessness. The items used indicate that persons high on either or both traits would see the world as a threatening, lonely place: people lack warm or trustworthy relationships with others, they lack clear goals and are out just for themselves, they live just for today, in a steadily worsening condition.

3. Insecurity (items 4, 11, 12, 17, 18, 22, 24, 26)

The items in this scale are less directed at how the world is, and more directed at the respondent's own state. A high score would mean the respondent believed that things tended to go wrong for him, often through no fault of his own, and that he was describing his unhappiness.

-341-

4. Pessimism (items 2, 7, 21, 23, 27)

Items in this scale are less concerned with how things are than with how people should assume they are. For example, a person scoring at the Optimism end of this scale does not necessarily believe that the world is especially friendly and pleasant, but he believes that people should try to be cheerful and should anticipate good rather than bad. Thus, for example, a person could agree that it is hard to find anyone to rely on, and thus score high on Purposelessness and Anomia, while also believing that it is foolish to expect the worst always, and thus score low on Pessimism. (This pattern did, in fact, occur at times, as described in the preceding chapters.)

5. Fatalistic Thinking (items 10, 15, 19)

High scores indicate a belief that events are largely a matter of fate or destiny, and a devaluing of man's ability to control events.

6. Belief in Intervention by God (items 6, 13, 25)

High scores indicate a tendency to view God as a direct and immediate influence on the world.

Scale Scoring System

The individual items had a five-point response format: strongly agree, agree, neutral, disagree, strongly disagree. Responses were scored by assigning one, two, three, four, or

-342-

NATIONAL
ANALYSTS, INC.

RECEIVED

NATIONAL TECHNICAL

AUG 4 1972

INFORMATION SERVICE

five points to them. For items worded such that agreement indicated the presence of the trait, strongly agreeing was worth five points, agreeing was worth four points, and so on down to strongly disagreeing, which received one point. For items worded in the opposite direction the scoring was reversed, of course.

Summing the points for each item would thus provide a respondent's score on the scale. However, some respondents omitted some items, so each respondent's sum of points received was divided by the number of items he answered. Thus, the scale scores that were used for analysis were "average item scores": each respondent had a score for each trait, which could be no lower than 1 and no higher than 5.

To compare two or more groups of respondents on a scale, mean scale scores were calculated for the various groups examined. However, it was not these means that were reported in the preceding chapters. Differences between means can only be interpreted when measures of variability within groups are also reported, and such presentations are still not highly meaningful for readers not trained in statistics.

Instead of reporting means, the preceding chapters report percentages of a group who were in the "high score range" and in the "low score range". The high range included scores between 3.5 and 5, the low range included scores between 1 and 2.5. Since on the original items scores of 1 or 2 indicated disagreement with an item worded to express the presence of the trait, and scores of 4 or 5 indicated agreement, the percentages that are reported can be viewed as if they were estimates of the proportions of people who would have agreed and disagreed if all the items in the scale had somehow been combined into one, worded to express the presence of the trait.

343