

Support of Preventive Health Care by the
Present Medical Care Delivery System

by

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[The cost of medical care is rising so fast that it now consumes more than 9% of the Gross National Product -- 9.4% in 1980 as compared to 3.5% in 1929. (Health United States, 1981). The cost of hospital care is rising the fastest and is attributed to increasing costs of technology and employee wages.] The government is attempting to deal with these problems through regulation of cost containment in the forms of Health Maintenance Organizations, certificate of need studies and capitation payments on medical programs such as Medicare and Medicaid.]

[The government is as guilty as the physicians in this country who attempt to treat the symptoms of the disease rather than the identification and treatment of the cause.]

[Prevention is one way to cut medical costs. This can be achieved through health promotion, illness prevention, and health education programs.] The purpose of this paper is to examine the present medical care delivery system as it supports or inhibits the participation of consumers in health promotion programs.

Defining the Delivery Systems

Health care and medical care overlap and intertwine in many ways but a clear and useful differentiation can be made between them. "Health care" refers to that part of the system which deals with promotion and protection of health. This will include environmental protection, prevention of accidents, provision of food and water and other activities beyond the control of individual and provided by society as a whole. Some facets are left to the individual such as proper diet, personal hygiene and abstinence from voluntary use of harmful substances.

"Medical care" refers to that part of the system which deals with individuals who are sick or who think they may be sick. Medical care must provide reassurance to individuals with self limiting illnesses for which no treatment is needed; support for those whose illness will continue but for whom treatment would be useless; appropriate diagnosis and treatment for patients whose illness require it; provision of continuing care and rehabilitation for patients with chronic illness and disability; and reference to appropriate community resources for those in need of them (Sidel, 1977).

A third area that should be introduced here is that of "self care". Self care can be defined as a "process whereby a lay person can function effectively on his or her own behalf in health promotion and decision making in disease prevention, detection and treatment at the level of primary health source in the health care system" (Levin, 1977).

Physicians

Private practice of medicine by physicians is the main component of the medical care system. Prior to 1910 medical care in America could best be described as a cottage industry. Medical education was more an apprenticeship requiring as little as one year to complete (Kilman, 1971). Doctors carried equipment in a small black bag and practiced on an individual basis.

In 1910, the American Medical Association organized the Flexner Committee to investigate medical education. The result of the investigation led to the closing of more than one half of the existing medical schools. Those that remained open developed programs rooted in biomedical sciences and focused attention on relief of pain, disability and death in individual sick persons and not on the aggregate problems of disease (Illich, 1976).

This increased emphasis on science and technology has created the existence of the present medical care system. Some aspects of this are:

.highly specialized physicians

.requirements of an industrial based delivery system - hospitals

.need for a substantial financial base for the delivery of medical care

It would be ludicrous to suggest that physicians do not support preventative medicine. Surely they do not wish to see people ill. However, their training is in the diagnosis and treatment of existing conditions. The existing shortage of primary care physicians already puts a strain on the accessibility to see a physician for acute or chronic illness. Therefore the ability to seek a physician visit for the purpose of illness prevention or health promotion is almost out of the question.

There are a few physicians such as Hulbert L. Dunn and John W. Travis who recognize the multidimensional aspect of health. Dr. Dunn is the author of a book entitled High Level Wellness describing the interrelated and interdependence of the human being composed of body, mind, and spirit. Dr. Travis is the founder of the Wellness Resource Center in Mill Valley, California. Patients arriving at the Center receive no drugs, prescriptions, lab work, physical examinations and see no physicians. Should they require medical attention, they are directed to other medical facilities. The essence of treatment is on self responsibility for the individual (Arvell, 1977). Although this may be an extreme example, it may indicate some small trend in the role of physician as an educator and health promotor.

One area where physicians are emphasizing health promotion is in prepaid group practices such as Health Maintenance Organizations. In order to qualify for federal funding, health promotion must be a part of the comprehensive services offered.

Prepaid group practice offers an incentive to the health care provider to promote preventive health care. The less often a participant requires medical services, the more profit is cleared by the provider of care (Enthoven, 1980). So although prepaid group practice is touted as a cost-containment approach to medical care

it is also a means of integrating medical care with health care as implied in its name.

Public Health

Public health is an organized effort by society to protect, promote and restore the health of the people. The programs, services and institutions of public health emphasize the prevention of disease and the health needs of the population as a whole.

Drawing on an interdisciplinary knowledge base, public health draws from medicine, environmental sciences, biomedical sciences, dentistry, management, the social sciences, nursing and law. The activities and initiatives change with time meeting the needs of community values and the nature of contemporary health problems. The past 100 years saw the virtual completion of the first epidemiological revolution with the conquest of infectious diseases. The next revolution will be on noninfectious diseases plaguing our society today -- cardiovascular disease, malignant neoplasm, and cerebral vascular accidents.

The major public health responsibilities are:

- .Disease prevention and the promotion of health and well being in the population.
- .Efficient and effective community wide use of health resources.
- .Monitoring of health status, health related problems, and health resources throughout the country (Healthy People, 1979).

Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention states that improvements in the health status of our citizens will be made primarily through prevention rather than treatment of disease. Great emphasis is placed on the importance of action initiated by the individuals, the need for more public information and motivation to place the responsibility for health care back in the hands of the consumer (Healthy People, 1979).

The goals of the public health system is admirable. Although it would be difficult to attribute exact cause and effect of the increasing health status of Americans some of the acknowledgement would have to go to public health education

programs. For example, there was a dramatic 21% decline in deaths from heart attacks between 1968 and 1976. This reduction may be attributed to a decrease in cigarette smoking, especially in adult males and perhaps to lower per capita consumption of animal fats and other high cholesterol foods (Healthy People, 1979). The first report by the Surgeon General on smoking and health was published in 1964. At that time 52% of the men in the U. S. smoked. By 1975 this percent had dropped to 39%. Overall, smoking rates for women declined also except for teenage girls (Healthy People, 1979).

The public health system must fight some obstacles to health education. Skeptics of health education point to the competition of public health with commercial advertising and other influences that promote current lifestyles, i.e., peer pressure, the affluent, overconsumptive society; and lack of professional consensus on major health issues.

The six categories that health education attempts to reach are: patient education, school health education, education at the workplace, community, national and media information programs.

The patient education program is considered successful. Nurses are the primary educators. The program is expanding to include not only the chronically ill and those facing childbirth or surgery, but also the well person. Lifestyle counseling is aimed at specific groups i.e., new parents, pregnant women and the elderly. A 1973 requirement that health education be offered in Federally funded Health Maintenance Organizations has aided this program.

School health education on the other hand is a disaster. Only 16 states require comprehensive school health education and only 30 states certify teachers of health (Healthy People, 1979).

Health education in the schools is especially important because lifelong behavior patterns are developed at childhood. Some experts contend that adulthood is too late to start modifying risk factors associated with heart disease.

There are some national developments underway to remedy the school situation. The National Center for Health Education is attempting to gain support for improved and expanded school health education programs (HealthyPeople, 1979).

Many companies are realizing the potential savings involved with promoting health on the job: lower costs in sick pay, lower health insurance premiums, higher productivity and less absenteeism.

The challenge of community programs is reaching those most in need of help -- the low income groups. Effective community health programs are often the result of providing the care in the appropriate areas in neighborhood clinics.

It appears the national programs need increased funding and organization to eliminate duplicity of action and are directed toward a common goal. Currently there are more than 70 private organizations affiliated with the National Health Council engaging in some type of education aimed at a broad segment of the population.

The media, especially the broadcast media, are perhaps the most effective means of bringing health information to the general public. Television is probably the single most effective means to reach the low income group. According to census data, 96% of U. S. homes have at least one television. While middle class people gain health information from peers, private physicians and printed sources, the low income depend on television and verbal communication (Health United States, 1980).

Defining Health

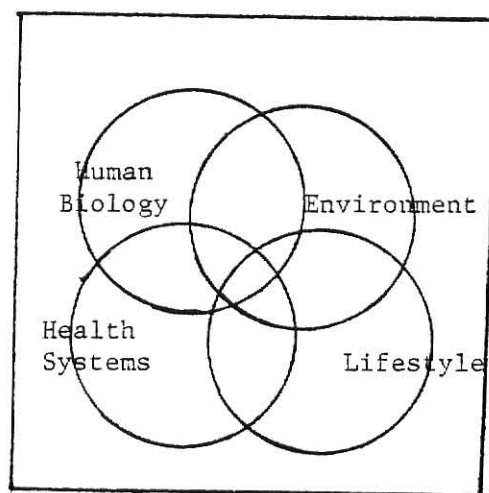
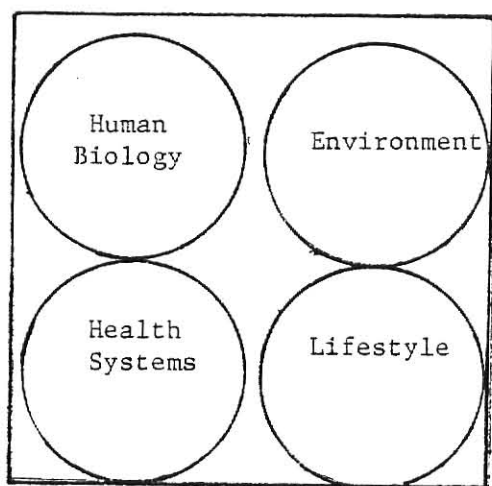
Health is often defined as the absence of illness. As a result of this definition the medical profession has aimed its attack at specific diseases and therefore measures success by the extent to which these diseases are controlled or medicated. This has met with substantial success in certain areas such as tuberculosis and small pox. Although the medical profession is entitled to major acknowledgement in this area, improved nutrition and sanitation played an important role leading to the control of these diseases in the early part of the 20th Century (Illich, 1972, McKeown, 1976).

An idea has emerged to define health as a spectrum and that everyone has a certain degree of health. This allows for the existence of both "positive" and "negative" health. The World Health Organization (WHO) has therefore defined health in a new way -- "a state of complete physical, mental and social well-being, not merely the absence of disease and infirmity" (Breslow, 1973).

Factors affecting health originate in one or more of the following categories:

- .human biology - including genetic components
- .external environment - including the objects within it
- .lifestyle - customs and habits
- .health systems - including environmental control and regulatory measures, efforts to influence lifestyle and preventative and medical treatment services of the health care system (Health United States, 1980).

Rather than view each of these factors as separate entities it is more realistic to depict the determinants of health in a model that suggests the interactive nature of their relationships. Compare these two figures.



Source: Health United States 1980

In some cases such as congenital heart disease the determinant may be human biology by itself. In the case of hypertension, the determinants may be attributable to lifestyle i.e., high pressure job, high salt intake or family history of hypertension which would relate to the external environment, lifestyle as well as human biology.

The area of interaction of several risk factors is currently being studied. Epidemiologic studies suggest that the effects may be powerful. For example, risks of stroke among women who use oral contraceptives is greater (more than double) among those who also smoke. Risks of cancer in the respiratory system is more than tripled for heavy smokers who are exposed to certain toxic agents or dust in the work environment (Health US, 1980).

Unfortunately, knowledge of factors that predispose diseases and knowledge of risk intervention is severely limited. The amount of knowledge about effective prevention varies greatly from one disease condition to the next. There is a range of knowledge from complete capability to eliminate sickness or death from a particular cause to complete ignorance of risks or strategies for early prevention.

| Absolutely Preventable | | No Known Prevention | | |
|------------------------|------------------|------------------------|----------|--------------|
| small pox | lung cancer | congenital anomalies | suicide | brain tumors |
| measles | asbestosis | infant mortality | homicide | rheumatoid |
| poliomyelitis | dental caries | cardiovascular disease | | arthritis |
| | cancer of cervix | stroke | | |
| | | trauma from accidents | | |
| | | cancer of bladder | | |
| | | pneumonia | | |
| | | influenza | | |

Source: Health United States, 1980

This spectrum is by no means complete and the large number of diseases and conditions in the center are not listed by severity but are only meant to be illustrative.

Looking at the continuum, the probability of preventing the onset of measles and poliomyelitis by utilizing known interventions measures is close to 100%. The probability of preventing brain tumors is zero. It is even more difficult to assign probabilities of success or failure in the middle section because knowledge of risk factors is not necessarily complete or the potential of intervention to reduce risk may depend on the target population, the measures selected to reach them and the skills with which preventative measures are applied.

Table 1.

Major causes of deaths in 1977 and associated risk factors

| Major causes of death 1977 | | Risk factors |
|------------------------------------|--------------------------|--|
| Cause | Percentage of all deaths | |
| Heart Disease | 37.8 | Smoking*, hypertension*, elevated serum cholesterol*, lack of exercise, diabetes, stress, family history |
| Malignant neoplasms | 20.4 | Smoking*, worksite carcinogens*, environmental carcinogens, alcohol, diet |
| Stroke | 9.6 | Hypertension*, smoking*, elevated serum cholesterol*, stress |
| Accidents other than motor vehicle | 2.8 | Alcohol*, drug abuse, smoking(fires), product design, handgun |
| Influenza and pneumonia | 2.7 | Smoking, vaccination status* |
| Motor Vehicle Accidents | 2.6 | Alcohol*, no seat belts*, speed*, roadway design, vehicle engineering |
| Diabetes | 1.7 | Obesity* |
| Cirrhosis of the liver | 1.6 | Alcohol abuse* |
| Arterivaclerosis | 1.5 | Elevated Serum Cholesterol* |
| Suicide | 1.5 | Stress*, alcohol and drug abuse, gun availability |

*major risk factor

Source: Office of Disease Prevention and Health Promotion

The listing of one or more risk factors with which each of the 10 causes of death is associated indicates major challenges to and opportunities for prevention. In each case, the risk factor has been statistically established or has been suggested as relevant, as in the case of stress and lack of physical exercise (Health US, 1980).

For the most part the risk factors can be acted upon by the individual. A few areas such as the determination of severe cholesterol and detection of hypertension and diabetes require the technology of public health or the medical profession. The engineering profession can have an effect on vehicle design and public policy makers can affect hand gun availability.

Major Risks in Different Age Groups

Looking at major causes of death for the entire population fails to disclose significant differences in risks to health experienced by different age groups.

Healthy People (OASH-SG, 1979) indicates some of these differences and outlines major opportunities for prevention.

Major Health Risks for Infants under 1 year of age

Death rates for infants are greater than at any other time in life except for over age 65.

There are three major causes of infant mortality: immaturity (low birth weight), birth associated conditions and congenital birth defects. Unfortunately deaths associated with these three conditions are only part of the problem. Survivors of these three conditions have greatly increased chances of developing problems of severe lifelong disabilities.

The major causes of low birth weight are pregnant women who lack proper nutrition. Maternal smoking has been identified as another risk factor resulting in slow fetal growth.

Birth associated risks are difficult to detect prior to delivery. Early identification and clinical management of risk factors such as difficult delivery as in a breech or cesarian section are the only guidelines to work with at this time.

Many congenital birth defects cannot be prevented such as physical anomalies, mental retardation and genetic disease. However, the Center for Disease Control estimates that the incidence of mental retardation could be reduced by 20 percent if known preventative measures were applied (Health United States, 1980).

Birth defects can be genetic or from exposure of the fetus to infections or toxic agents during the prenatal period. Amniocentesis has allowed for detection of possible genetic disorders or other birth defects and allows for options in intervention.

Risk factors to the fetus in the prenatal environment may include but are not limited to the following:

- .Rubella (german measles) if contracted by the mother in the first 3 months of pregnancy.
- .Exposure to X-rays or radiation in the work place.
- .Ingestion of certain medications by the mother either prescription or over the counter drugs.
- .Smoking.
- .Alcohol consumption by the mother in excess of one ounce daily (Health US, 1980).

While the medical profession may inform the pregnant women of these risk factors, there is little they or anyone else can do to enforce behavior changes. Other than in the form of education, the medical profession plays a secondary role in the choices made by the individual.

Major Health Risks to Children 1-14 years of age

The benefits to children from prevention and treatment of communicable diseases has been extraordinary in the past 50 years. In 1900 the death rate for children ages 1-14 was 870/100,000; by 1978 it was decreased to 43/100,000. Accidents have replaced diseases as the major risk to children's lives today (Health US, 1980).

The word "accident" commonly describes unintentional injury and therefore connotes acts of fate beyond control of the individual. The majority of "accidents" can be prevented however through changes in lifestyle and/or environment.

Almost half of children's deaths are associated with motor vehicles. Prevention occurs with the use of car safety restraints for infants and usage of seat belts for older children.

The major cause of death in children is accidents other than motor vehicles. The risk factors involve lack of supervision and exposure to environmental hazards such as fires (6%) and drownings (8%). Poisonings from toxic agents i.e., drugs, plant sprays and cleaning agents have decreased with the invention of childproof caps but still account for approximately 4% of deaths in children (Health United States, 1980).

Private medical care can do little to assist in preventative measures in this age group. The public health system may promote the use of seat belts and supervision but parental influence is probably the most effective measure of prevention - assuming the parents are informed.

Major Health Risks of Young Adults 15-24 years of age

Unlike any other age group, the death rate for the 40 million adolescents and young adults is higher today than it was 20 years ago. The major health problems for this age group are violent death and injury, alcohol and drug abuse, unwanted pregnancies and sexually transmitted diseases. Studies indicate accidents, homicides and suicides account for almost 75% of the deaths (Health United States, 1980).

Alcohol related accidents are the leading cause of deaths for this group and 60% of all alcohol related highway traffic fatalities are among this age group. Risks from alcohol and fast driving are exacerbated by failure to use seat belts.

According to Health US, 1980, in 1976 one out of every 10 teenagers and young adults who died committed suicide. Firearms was the most common method followed by poisoning.

This age group is also prone to infection from sexually transmitted diseases, accounting for 75 percent of the estimated 12 million cases that occur each year.

Transmission of such diseases can be curtailed through early diagnosis and treatment. However, effectiveness of the program depends on reaching the target population in screening programs as well as contacts.

There are complex factors contributing to the extremely high homicide rate in

this age group. Alcohol and accessibility to hand guns seem to play a significant role in this area.

Major Health Risks for Adults 25-64 years of age

If one is lucky enough to have made it this far he/she has another set of health problems to face. People in the middle years die most often from heart disease, cancer and strokes.

The major risk factors for heart disease and stroke are smoking, high blood pressure, high serum cholesterol and diabetes. The associated risk factors include:

- .Death rates for heart disease is nearly twice as great for smokers as nonsmokers -- risk is proportional to number of cigarettes smoked.

- .High blood pressure is significantly associated with coronary heart disease and stroke. The rate of coronary heart disease among men 45-64 years of age is two to three times greater for blood pressures above 160/95 mmHg than for those with pressures below 140/90 mmHg. Strokes are three times as frequent for people with systolic pressures above 160 mmHg. than for those with pressures below 140 mmHg.

- .Premature heart disease is unequivocally associated with elevated serum cholesterol levels which is linked to high levels of fat and cholesterol intake.

- .Diabetics have at least twice as many heart attacks and strokes as nondiabetics of the same age (Health US, 1980).

Other factors that appear to contribute to risks of heart disease are overweight, physical inactivity, genetic predisposition and ability to handle stress. Because of their likelihood to occur in combination with major risk factors, the independent contribution of these factors is unknown.

Reducing risks is no guarantee for this age group however it can measurably increase chances for escaping premature death or disability.

Cancer is contracted by one in four Americans. Cancer is not a single type of disease but rather a group of diseases. Each type develops at its own rate but a common occurrence is the uncontrolled multiplication of malignant cells. It is important to understand the multiplicity of cancer for in prevention, the environmental, biological and lifestyle conditions are significant factors.

The causes of cancer are unknown. Some of the known major risk factors are smoking, alcohol, radiation and chemical exposures in the environment. There is some feeling that diet and heredity also play a significant role.

Major Health Risks of Older Adults 65 years of age and over

The major causes of death for people 65 and over are similar to the adults in their middle years: heart disease, cancer and stroke. As with the younger group interventions for the elderly include controlling high blood pressure, stopping smoking, eating healthier diets and participating in moderate exercise.

The most frequent chronic conditions that inflict the elderly are arthritis, high blood pressure, reduced vision, impaired hearing and heart conditions. Individuals assaulted with these conditions over time can become less resilient and less able to cope sufficiently. The challenge to prevention is to intervene at early stages to intercept this process. The physician or other medical professional can play an important role here by identifying not only physical but also mental and social health and to make referrals as needed.

Consumer Participation

The increased interest in self care during the past decade can be attributed to several factors:

1. Present morbidity from chronic diseases has increased from 30-80% indicating a need to shift goals from curing the disease to caring for the patient.
2. There is growing recognition that human behavior affects most if not all acute illness. As a result, the individual plays a significant role in the exacerbation of chronic disease.

3. There is increasing recognition and documentation of the limits of medicine. People are realizing that physicians do not have a stash of medicine hidden away to be doled out at any given time.
4. There is a corresponding awareness of the potentially negative side effects associated with professional care. Media coverage of malpractice suits has increased dramatically in the past decades.
5. Along the same lines, public awareness of iatrogenesis (physician or hospital induced illness) has increased (Illich, 1976). The once highly respected field of medicine has experienced a decrease in public confidence with exposure of incompetence, ineffectiveness, unnecessary surgery and diagnostic overkill.
6. There are an increasing alternatives to health care. The late sixties and early seventies experienced a resurgent interest in holistic medicine, biofeedback therapy, increasing interest in nutrition, awareness of chemical additives and their potential side effects and interest in environmental issues as they affect health.
7. The rising tide of populism has people seeking more personal control in their lives. They may not be true for all consumers but is certainly true for enough to create the demand for alternatives in health care.
8. An increase in the number of para-professional medical fields (physician assistants, nurse practitioners, emergency medical technicians) has helped to dispel the mystique of medicine (Levin, 1977).

During the mid-1960's the Human Population Laboratory in Alameda County, California, found a positive association between seven favorable health practices and good physical health status (Belloc and Breslow, 1972). The favorable health practices were as follows:

- .Exercise vigorously and regularly
- .Maintain normal weight

- .Eat breakfast
- .Avoid smoking
- .Do not eat snacks between meals
- .Limit alcohol consumption
- .Sleep at least 7 hours a night (Belloc, 1972).

Persons with favorable health practices in 1965 also had an advantage over persons with unfavorable practices in terms of mortality risks. The table on page 17 shows age adjusted mortality rates as of 1974 among the 1965 Alameda cohort for each of the seven health practices.

The seven health practices require no medical attention in order to be implemented.

Using data from a 1974 mortality follow up of the Alameda longitudinal study, Breslow and Entrom (1980) analyzed the relationship between the number of health practices and mortality for the 1965 cohort according to the year in which death occurred. Although the relationship was strongest in the first 2 1/2 years, it remained significant throughout the entire 9 years.

Table 2.

Standardized mortality ratios¹ for the 1965 Alameda County cohort according to follow up interval and 1965 health practice score²: July 1965 - December 1974.

| 1965 health practice score | Total 9 1/2 yrs. | Follow Up Interval | | |
|----------------------------|------------------|--------------------|-------------|-------------|
| | | First 2 1/2 yrs. | Next 3 yrs. | Last 4 yrs. |
| 0-3 | 178 | 252 | 169 | 142 |
| 4-5 | 109 | 101 | 108 | 114 |
| 6-7 | 75 | 67 | 79 | 77 |

¹The standardized mortality ratio is the observed number of deaths to the expected number of deaths using a base population of 100. Expected deaths were based on age-specific proportions dying in the total sample.

²Health practice score is number of positive responses to the following items: never smoked cigarettes; drink not more than 4 drinks at a time; often or sometimes

engages in active sports, swim or take a long walk, or often garden or do physical exercises; weight for men between 5% under and 20% over desirable weight for height, and for women not more than 10% over desirable weight for height, usually sleep 7 or 8 hours; eat breakfast almost every day; eat between meals once in a while, rarely or never.

Age-adjusted death rates¹ for the 1965 Alameda County cohort, according to sex and health practices: July 1965-December 1974

| Health practice | Sex | |
|---|------------------------|--------|
| | Male | Female |
| | Number per 100 persons | |
| Total cohort..... | 12.7 | 8.6 |
| Hours of sleep | | |
| 6 hours or less..... | 15.6 | 9.7 |
| 7 hours..... | 11.5 | 6.8 |
| 8 hours..... | 11.1 | 8.1 |
| 9 hours or more..... | 13.9 | 10.4 |
| Desirable weight for height | | |
| Underweight: | | |
| 10 percent or more..... | 21.8 | 11.7 |
| 5-10 percent..... | 15.6 | 6.3 |
| Between 5 percent underweight and | | |
| 5 percent overweight..... | 13.4 | 7.9 |
| Overweight: | | |
| 5-10 percent..... | 9.0 | 6.8 |
| 10-20 percent..... | 10.3 | 7.7 |
| 20-30 percent..... | 10.8 | 7.7 |
| 30 percent or more..... | 15.5 | 11.0 |
| Smoking status | | |
| Never..... | 9.1 | 7.0 |
| Formerly..... | 10.4 | 12.0 |
| Currently..... | 15.4 | 10.6 |
| 1 pack per day..... | 12.6 | 10.6 |
| 1-1 1/2 packs per day..... | 16.2 | 10.4 |
| 2 packs or more per day..... | 20.0 | * |
| Physical activity | | |
| Often engages in active sports..... | 6.8 | * |
| Often swims, gardens, or exercises..... | 11.3 | 6.5 |
| Sometimes engages in sports or | | |
| swims..... | 12.4 | 7.6 |
| Sometimes gardens or exercises..... | 15.0 | 8.2 |
| None of the above..... | 18.6 | 16.1 |
| Alcohol consumption | | |
| None..... | 11.9 | 9.4 |
| 1-2 drinks at a time..... | 11.1 | 7.4 |
| 3-4 drinks at a time..... | 12.2 | 7.4 |
| 5 drinks or more at a time..... | 16.2 | * |
| Breakfast eating | | |
| Almost every day..... | 11.6 | 7.8 |
| Rarely or sometimes..... | 16.3 | 10.0 |
| Snacking | | |
| Rarely or occasionally..... | 11.9 | 8.3 |
| Almost every day..... | 14.3 | 8.1 |

¹The 9 1/2-year death rates, age adjusted by the direct method to the total 1965 survey sample.

Source: (Breslow, L., and Enstrom, J. E., 1980.)

The U. S. Department of Health and Human Services undertook a "prevention initiative" after the publication of Healthy People in 1979. There were two purposes of the initiative: 1) to set forth specific actions that people could undertake to improve their health and, 2) to describe the role of Federal and State agencies and the private sector in helping people achieve these objectives.

Several of the objectives in the prevention initiative were directly related to the Alameda study. Where the Alameda study illustrated the consequences of poor health practices in terms of physical health and mortality, the prevention objectives identify relationships between health practices and specific diseases and disabilities.

The National Survey of Personal Health Practices and Consequences (NSPHPC) conducted a study in 1979 to provide data required for the prevention initiative. The study was a telephone survey of adults age 20-64 designed to collect data on personal health practices, their stability over time and their relationship to morbidity and mortality.

The preliminary analysis of data from the NSPHPC study suggest that the relationship between health practices and health status found in Alameda County hold up nationally with cross sectional data. Education, as a proxy measure of socio-economic status has been shown to be associated with health practices. If this is so, then the data from this study suggests that adults with less than a high school education would be an appropriate target group for national health promotion efforts (Schoenburn and Danchik, 1981).

Who is Providing Preventive Screening?

A study on the changes in use of preventative health services (Makuc, 1981)

indicates that increases in usage are encouraging especially where high risk subgroups show improvements to a greater extent than others.

Mounting recognition of the importance of prevention practices has been resulted in health education efforts. The substantial publicity of breast cancer and hypertension are good examples. The National High Blood Pressure Education Program (NHBPEP) was started in 1971 and includes not only Federal agencies but more than 150 national organizations and State health departments.

Government programs have also made it possible for the poor and medically underserved to receive preventative care; Medicare, community health centers and federally subsidized family planning services include such preventative measures as PAP tests, breast examinations and blood pressure tests.

While there is information available concerning the number of visits to physician there is little information concerning purpose of visits. It is therefore difficult to determine how much preventative screening is being performed in private practice.

Physician and Consumer Attitudes Towards Self Care

Many people gain information on healthful lifestyle practices from books and articles on the general topic of health or on specific areas such as stress management, hypertension or physical exercise. Other people are looking to health education programs for information on specific skills (Health United States, 1980). The most often mentioned programs were cardio-pulmonary resuscitation classes and first aid. More comprehensive programs are being developed along the guidelines of the Activated Patient Program of the Georgetown University Center for Continuing Health Education.

The literature search for this paper revealed two articles that used similar Likert-type formats to establish attitudes on self-care. The first article by Linn and Lewis was titled "Attitudes toward Self Care among Practicing Physicians" (Linn and Lewis, 1979). The purpose of this paper was to develop an attitude

instrument to describe the degree to which practicing physicians in a community favor self-care programs.

Green and Moore published an article entitled "Attitudes Toward Self-Care a Consumer Study in 1980" (Green, 1980). Green and Moore used the Linn and Lewis attitude scale revising it somewhat to make the wording more comprehensible to the lay person.

The following table combines the results of these two studies. There may be some instances where word differences may affect the exact comparison of the statements for example in statement 6, the use of the words "may" and "will". Also in statement 8, the consumer statement refers to "non-prescription" medication but we must assume that consumers do not have access to prescription medication without physician contact. Both articles refer to the ability of consumers who have completed a self-care program to make decisions concerning preventive health measures as well as detection and treatment at the level of primary care. There are not significant differences between the attitudes of physicians and consumers. This data does not indicate nor was I able to find data that did substantiate the correlation of attitudes and actual behavior of consumers who have completed a self-care program. Lack of data in the area has been attributed to the need for a longitudinal study to ascertain the long range affect of such programs (Green, L. 1977). Cost-benefit analysis of such programs will be a factor in future growth.

Table 3. Attitudes Toward Self Care

| Physicians n=165 | \bar{X} | % Strongly Agree 1 | % Agree 2 | % Uncertain 3 | % Disagree 4 | % Strongly Disagree 5 | Consumers n=245 |
|--|-----------|-----------------------------|-----------------|---------------------|--------------------|--------------------------------|---|
| Self-care will probably not reduce the number of times people contact the doctors. | 2.75 | 8 | 45 | 14 | 30 | 3 | Self-care probably will reduce the number of times people go to the doctor.* |
| | 1.99 | 15 | 74 | 1 | 10 | 0 | |
| Most people would prefer to take care of their own health problems without asking for professional help. | 3.42 | 3 | 18 | 17 | 53 | 8 | Most people would rather take care of their health problems WITHOUT professional help. |
| | 2.95 | 1 | 45 | 8 | 40 | 4 | |
| Very few people want to be self-reliant in making decisions about their health. | 2.67 | 7 | 46 | 23 | 21 | 3 | Most people aren't self reliant enough to make decisions about their health. |
| | 3.20 | 2 | 37 | 7 | 49 | 6 | |
| Self-care programs will help reduce the number of people seen by physicians who are not seriously ill. | 2.72 | 3 | 46 | 29 | 20 | 2 | With self-care, fewer people will go to the doctor with non-serious problems.* |
| | 2.05 | 16 | 72 | 2 | 9 | 0 | |
| In the long run, self-care programs will help reduce the overall cost of medical care. | 2.88 | 5 | 37 | 29 | 23 | 6 | In the long run, self-care will help reduce the costs of medical care.* |
| | 2.10 | 23 | 59 | 4 | 13 | 1 | |
| Self-care may reduce the overall quality of care provided to people. | 2.95 | 5 | 33 | 26 | 34 | 2 | Self-care will reduce the overall quality of medical care. |
| | 2.38 | 11 | 63 | 4 | 20 | 2 | |
| If people took care of their less serious health problems themselves, then patients with serious illness would have easier access to physicians. | 2.74 | 6 | 45 | 16 | 30 | 2 | If people took care of minor illnesses themselves, then people with serious illnesses could get in to see the doctor more easily. |
| | 1.77 | 39 | 53 | 2 | 7 | 0 | |
| A person shouldn't take any medication unless a doctor recommends them. | 2.78 | 16 | 35 | 6 | 41 | 2 | A person shouldn't take any nonprescription medication unless a doctor recommends it. |
| | 3.40 | 8 | 60 | 1 | 26 | 5 | |
| People need to rely less on physicians and more on their own common sense regarding the care of their bodies. | 3.23 | 7 | 29 | 12 | 38 | 14 | People need to rely less on doctors and more on themselves in taking care of their health problems. |
| | 2.46 | 10 | 59 | 7 | 22 | 1 | |
| It is undesirable for people to diagnose and treat their own illness. | 2.29 | 29 | 39 | 9 | 20 | 3 | It is undesirable for people to diagnose and treat their own illnesses. |
| | 3.31 | 1 | 31 | 11 | 49 | 8 | |

For each corresponding statement, the numbers in the top row refer to the physician's attitude and the numbers on the bottom row refer to the consumer's attitude.

* \bar{X} scored in reverse

Conclusion

There is a distinct difference between the medical care system and the health care system in the United States. Most consumers think of their private physician and local hospital as the primary source of health care. Public Health is often considered a "welfare" program. Consumers aren't aware that the tax dollars spent by public health are for the benefit of the entire community or country depending on which level is being examined.

Private physicians are trained in the diagnosis and treatment of acute and chronic illness. The public health system has as its objectives the health promotion and disease prevention for the whole community. Modern medicine is largely ineffective against the leading causes of death for people under 45 -- accidents, suicide and homicide. Physicians make attempts, even heroic attempts to treat these individuals once the injury is sustained but they do little in the way of prevention. For individuals over 45 the leading causes of death are heart disease, cancer and stroke. Again, the physician can merely treat the damaged bodies and perhaps offer some rehabilitative services. Public health on the otherhand attempts to promote health by offering educational material and screening programs in an effort to identify high risk patients. While the education efforts and screening measures are important, it is clear that the consumer has the ultimate responsibility in implementing preventive measures.

In the past, the mystique of medicine has placed the consumer in a passive role in the medical care system. The 70's brought on a resurgence of interest in health and over 500 books and articles on the topic were published. Medical self care courses are being offered around the country and the introduction of paramedical personnel has proven that the lay person can obtain and utilize health care information.

Victor Fuchs (1975) in his book Who Shall Live? makes a suggestion almost a plea, that what we are concerned about is health, not the cost as such and not the medical care as such. He impresses that the greatest potential for improving the health of the American people is not to be found in increasing the number of physicians, or in forcing them into groups, or even in increasing hospital productivity, but it is to be found in what people do and don't do, to and for themselves. With so much attention given to medical care and so little to health education and individual responsibility for personal health, this country runs the danger of promoting the urge to buy a quick solution to a difficult problem at a very high cost.

It is clear that public health has a monumental task ahead of them in reaching all Americans in the area of health promotion, but recent studies indicate lifestyle changes are taking place and although it may take years to see the results, we have reason to believe consumers are taking a more active role on personal health care.

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Support of Preventive Health Care by the
Present Medical Care Delivery System

by

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B.S., University of Arizona, 1981

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by the Present Medical Care Delivery System

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ABSTRACT

Health is not merely the absence of illness but could be viewed in a spectrum that allows for both positive and negative possibilities. Four factors influence the health of an individual -- human biology, the external environment, lifestyle and health systems. A mid 1960 study in Alameda County, California found a positive association between seven favorable health practices and good physical health status. The seven practices are exercise, maintaining normal weight, eating breakfast, avoidance of smoking, no snacking, limited alcohol consumption and 7-8 hours of sleep a night. These practices require action by the consumer and little intervention by the medical care delivery system.

Modern medicine is largely ineffective against the leading causes of death for people under 45 -- accidents, suicide and homicide. The same is true for people over 45 -- heart disease, cancer and strokes. The medical care system of private physicians is trained to diagnose and treat acute and chronic illness. The health care system of public health physicians is trained to promote health and prevent illness for the American people. The desire to implement preventive measures must be made by the individual.

As consumers search for health information self care programs are developing across the country. A comparison of physician attitudes and consumer attitudes on self care programs finds that both agree on the ability of consumers to participate more actively in the health care system.