

Marketing Principles and the Future of Preventive Health Care

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PREVENTIVE HEALTH CARE AIMS TO DECREASE mortality or the incidence, duration, or severity of disease. In recent years, interest has been increasing in the development and implementation of preventive programs, principally for two reasons. First, research into the natural history of diseases, especially in the presymptomatic stages, has highlighted numerous associative and causative connections between the lifestyles of patients and the incidence of disease. The more precise identification of risk factors associated with specific diseases has made the objective of effective prevention more realistic. Second, the rising cost of health care has prompted an increasing interest in preventive programs. Their appeal is based upon the prospect of substantial savings in the costs of diagnosis and therapy, and upon the lower capital investment that they require relative to therapeutic programs (Walker, 1977). Terris (1977), for example, has estimated that in the United States the application of known preventive measures could save 400,000 lives and \$20 billion annually. In the same vein, Governor Hugh L. Carey (1979) commented in his most recent "State of Health" message to the New York State Legislature: "For too long, we have invested almost exclusively in those parts of the health care system that attempt to repair physical and mental problems, an increasing percentage of which are caused by ourselves. This is not only an inefficient approach,

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it is downright foolish. . . . Our efforts in education, prevention and early detection must be strengthened if we are to reverse this trend."

Some proponents of preventive programs regard them as complementary to therapy, while others regard them as partial substitutes, at lower cost. Whatever the view, interest seems to be increasing in the allocation of proportionately more health dollars to preventive programs, particularly since such programs have traditionally accounted for less than 5 percent of the total expenditures for health care in the United States (for example, see Kennedy, 1975).

The interest in preventive care programs continues apace, although the evidence for their effectiveness is equivocal (Fielding, 1977, 1978). In a review of the results of recent preventive interventions, Robertson and Wortzel (1978:525) concluded that "the literature is replete with discouraging case studies." Even when positive results are achieved, the cost effectiveness of the programs may be questionable, as was true of a campaign to persuade drivers to wear seatbelts (Helsing and Cornstock, 1977; Robertson et al., 1974). A lack of direction has been offered as one reason for the apparent poor record of preventive interventions: "Since most of the money has been spent on intervention [after illness], few studies have shown the direction that efforts at prevention should take" (*Business Week*, 1978:59).

Among other explanations offered for the ineffectiveness of preventive interventions is a lack of marketing awareness on the part of those who design the programs. For example, a recent study of the impact of the ban on broadcast advertising by cigarette manufacturers, an intervention designed to reduce smoking, concludes that "anti-smoking advocates would be well advised to devote more energy to sharpening their own use of marketing tools rather than attempting to limit their opposition's marketing strategies through legislation" (Teel, Teel, and Bearden, 1979:50).

The principal purpose of this paper is to evaluate the role of marketing in the design and implementation of preventive programs. Proponents of preventive care have recently been turning to the marketing function to increase the credibility and improve the effectiveness of preventive interventions (Fielding, 1977). Simultaneously, marketers have been developing an increasing interest in the health care field, as illustrated by the publication of a monograph on preven-

tive health care by the American Marketing Association (Cooper, Kehoe, and Murphy, 1978). It has recently been argued that "perhaps the easiest and most logical entry point for marketing into the health care field is in the area of preventive health services. It is generally accepted that marketing . . . finds its most notable contributions in situations where supply is greater than demand. Perhaps nowhere more than in the preventive health care field would such a phenomenon be welcomed" (Cooper, Maxwell, and Kehoe, 1978:238).

This paper first reviews the basic concepts of marketing and its emerging role in the administration of health care, and then discusses the broad range of preventive interventions available to policy makers, to indicate how the applicability and role of marketing can vary from one type of intervention to another. Finally, barriers to the effective incorporation of marketing principles in the design and implementation of preventive health care programs are examined, for the benefit of policy makers and administrators who may be interested in the application of marketing methods in developing such programs.

The Marketing Concept and Health Care

The satisfaction of consumer needs is a central concept of marketing: "The function of marketing is to study and interpret consumer needs and behavior and to guide all business activities toward the end of consumer satisfaction" (Rewoldt, Scott, and Warshaw, 1977:5).

The marketing concept is no longer perceived as being exclusively relevant to the business or for-profit sector of the economy. The potential utility of marketing principles and strategy in addressing societal issues beyond the business sector, recognized by Kotler and Zaltman (1971:5), has prompted a broadening of the marketing concept: "Marketing is the analysis, planning, implementation, and control of carefully formulated programs designed to bring about voluntary exchanges of values with target markets for the purpose of achieving organizational objectives." Given this definition, the marketing concept and marketing strategy have become potentially applicable to organizations in the not-for-profit sector of the economy that includes colleges, museums, churches, and hospitals (Kotler, 1979). In addition

to the range of items normally considered as products and services, the "values" being marketed or exchanged may include types of social behavior, such as reducing air pollution, eating a nutritious diet, or contributing to the March of Dimes.

The identification and understanding of consumer needs and attitudes is a necessary condition of effective marketing. The population is not ordinarily homogeneous with respect to these needs and attitudes. Thus, the marketer must use consumer research to establish whether distinct market segments exist within the overall population. Such segments may be defined in terms of demographics, needs, lifestyles, attitudes, or any variable that meaningfully distinguishes one segment from another. Consumer research that furnishes this information helps the marketer to develop and sell the products, services, or ideas that will appeal to the market segment(s) to be served.

The formulation of a marketing strategy flows from the evidence provided by consumer research, and traditionally involves the framing of policy in four areas of decision-making—product, pricing, distribution, and communications. Each one must be considered in the light of the analysis of consumer research and market segmentation. The product policy should define the range of products, services, or concepts to be marketed by the organization. The pricing policy must take account of the costs in money and time that the consumer will be willing to spend in order to obtain the product. The distribution policy should ensure that the organization's products or concepts are efficiently delivered to the target consumer at the appropriate time. The communications policy must be designed to inform the consumer of the existence of the products—where, when, and at what cost they can be obtained—and to persuade the consumer to take the action necessary to acquire them.

An internally consistent plan of action in each of the four policy areas—product, pricing, distribution, and communications, collectively known as the marketing mix—constitutes a marketing strategy. This definition has gained widespread acceptance as being applicable to the marketing of products (Kotler, 1972) and services (Rathmell, 1974) in both the for-profit and the not-for-profit sectors of the economy (Kotler, 1979). At this juncture, it may be appropriate to

emphasize that marketing is not equivalent to advertising or public relations (Clarke, 1978). Indeed, advertising and public relations are merely two of the tools, along with personal selling and sales promotion, available to the marketer in designing his communications policy.

Marketing and the Health Care Industry

Aspects of marketing strategy such as public and community relations, the planning of facilities, and management of demand have been associated with the administration of health care organizations for many years. Only recently, however, has consideration been given to the notion of discussing these and other relevant activities under the umbrella of marketing. In recent years, two books (Jaeger, 1977; MacStravic, 1977) and a number of articles (Lovelock, 1977; Tucker, 1977; Berkowitz and Flexner, 1978; Clarke, 1978; Fryzel, 1978; Garton, 1978) have discussed the application of marketing management and strategy in health care organizations. In this context, the "seller" is the health care organization, the "product" is the preventive intervention or service offered, and the "consumer" is the person who responds to the offer—the patient or potential patient.

Although the principles of marketing may be generally applicable, the specifics of appropriate marketing action may vary from one type of health care problem to another. Thus, MacStravic (1976) and Miseveth (1978) have studied the marketing of ambulatory care, and Simon (1978) has discussed the marketing of the community hospital. Still others (Blomquist, 1979; Luft, 1978) have considered the marketing of health maintenance organizations, particularly in relation to their pricing policy. In addition, the roles of particular elements of marketing strategy are increasingly being analyzed in greater depth. A major focus has been on communications policy—the role of public relations (Goates, 1976) and the role of advertising (Bloom and Stiff, 1980; Quelch, 1979a).

Recent surveys by Whittington and Dillon (1978, 1979) indicate that the marketing concept is being eagerly embraced by many hospitals and health care organizations. Nine out of ten hospital administrators responding to the survey agreed that the scope of marketing activity by hospitals would grow over the next five years. At a time

when the health care industry is being extensively criticized on the grounds of cost inflation and is being threatened with increased government regulation, the industry's demonstration that its services are being tailored to the needs of its consumers may offer a valuable defense. The increasing orientation of health care organizations toward the consumer has also been prompted by the emphasis on ambulatory care and outreach to patients in the 1974 federally sponsored National Health Planning and Resources Development Act. Other factors contributing to the current interest in marketing include the existence within the health industry of a for-profit sector, which can more readily grasp the relevance of marketing concepts; the daily contact of the hospital or health care organization with the commercial companies that supply their needs; and recognition of the fact that managing the timing and the nature of the demand for particular health services is important to cost-efficient operation.

Marketing and Preventive Health Care

There is increasing recognition of the diversity of preventive health care interventions, which range from controls on industrial pollution to taxes on cigarettes, from air bags in automobiles to physical fitness programs. Given such a variety of approaches, the value of marketing as a determinant of program effectiveness is likely to vary from one type of intervention to another. In addition, some of the more cost-effective interventions may require relatively low marketing input. This section will review alternative methods of classifying preventive interventions and will discuss the role of marketing in relation to several types of intervention.

Preventive interventions vary widely in terms of their intended goal. They can focus on any of four areas—the environment, disease, the health care organization, and lifestyles (Morgan, 1977). Interactions occur among these areas, and Etzioni (1972) has especially emphasized that lifestyles are a function of environment. Patterns of physical exercise among consumers, for example, are shaped by urban and architectural designs and by transportation systems. If the goal of increasing consumer exercise received higher priority in the planning

process, a greater impact might be achieved at lower cost than through a communications program urging consumers to exercise more. Like Erzioni, an Ontario Economic Council report (1976) emphasizes that environmental and technological approaches to preventing illness are often overlooked.

In discussing the opportunities for influencing the consumer's behavior not directly but through environmental change, Venkatesan (1978) and Fielding (1978) have drawn a distinction between interventions in which the individual consumer can remain passive and those in which the consumer must be active. Regulation of the quality of food products and fluoridation of the water supply, for example, represent interventions whose effectiveness does not depend upon the active involvement of the consumer.

The principal advantage of consumer-passive interventions implemented through organizations is their potentially greater political feasibility, because government more often than not is dealing with the individual consumer only indirectly and is therefore less likely to attract consumer opposition. For example, consumers are just as likely to blame automobile manufacturers for price increases resulting from compliance with government safety and pollution standards as they are to blame the government.

Thus, the opportunity for marketing strategy to contribute to program effectiveness may appear less dramatic in consumer-passive interventions than in consumer-active interventions. However, in the design of any quality controls, occupational and industrial safety laws, or environmental standards, research is always necessary to understand the perspective of individual consumers whose lives such interventions aim to influence.

Although the consumer assumes a passive role in the implementation of these interventions, their success often depends greatly upon the degree to which the consumer actively responds to such changes in the desired manner. For example, the success of an intervention designed to encourage employers to provide exercise facilities at the workplace depends as much upon the number of workers who use the facilities as upon the number of new facilities established. The opposition of some consumer groups to fluoridation, an intervention that requires no active participation or behavior modification, testifies to

the importance of considering consumer opinions in the implementation of consumer-passive interventions (Ast, 1978).

The distinction between consumer-active and consumer-passive interventions reflects the difference between interventions aimed at self-imposed risks and those aimed at environmentally imposed risks. Interventions whose effectiveness requires that the consumer be active can be further divided according to the amount of activity required. A Pap test, for example, requires a one-time act; the annual physical checkup requires repeated but noncontinuous acts; good nutrition requires repeated and continuous acts—good eating habits—to remain effective. The level of required behavioral commitment varies according to the preventive intervention. In a related study of consumer involvement, Rothschild (1979) has distinguished high-involvement activities, such as regular exercise, which are perceived by the participants as benefiting themselves, and low-involvement activities, such as compliance with speed limits, which are perceived as offering more benefits to society than to the participants. The degree of reinforcement necessary and the challenge of the marketing task may be equally great for both types of behavior modification, those requiring continuous high involvement, and those requiring occasional low involvement.

In the category of consumer-active interventions, further distinction can be made between those that require the consumer to adopt a new behavior (whether one-time or continuous) and those that require the giving up of a current behavior. Interventions that emphasize the avoidance of a harmful activity may be more effective. If the time and money formerly expended on the harmful activity can be applied to substitute activities that the consumer may regard as equally acceptable, the objective of the intervention may be more easily achieved. Adoption of a new behavior, however, frequently requires the displacement of an existing and often preferred activity. The marketing and communications effort necessary to stimulate the adoption of a new behavior is often greater than that needed to prompt the abandonment of or reduced adherence to an existing behavior.

Health care professionals sometimes divide preventive interventions of the consumer-active variety into three categories. Primary intervention includes actions designed to prevent disease or injury.

Secondary prevention involves early diagnosis, and includes screening programs aimed at early detection of disease, risk factors, or disease complications. Tertiary prevention is an extension of treatment and includes actions prescribed to facilitate rehabilitation after sickness (Morgan, 1977). This classification may be useful to health professionals but, lacking an explicit focus on the consumer, is of little direct value in the planning of marketing strategy.

However, the distinction becomes significant when we consider the consumer's degree of responsibility for the success of the prevention, relative to that of the health care professional. Preventive interventions of a secondary nature, such as vaccinations and screening programs, require consumers to interact with health care professionals. Other preventive measures, particularly of a primary nature, such as exercise and good nutrition, do not require interaction with the health care system. Interventions in the first group commonly involve the acquisition of a specific service at a specific time and place, frequently for a fee. As in the purchase of a product, there is an obvious point of ending to the task, and the presence of the health provider offers an assurance of quality control in the delivery of the service. In terms of the marketing mix, decisions must be made regarding the design of the service, its pricing and distribution, and the manner in which its availability should be communicated to the target group(s) of consumers.

Interventions of the second type may be undertaken by the consumer on his or her initiative or at the suggestion of a health care provider; the product is usually an idea rather than a service. Here the critical elements of the marketing mix are product policy, involving the detailed formulation of the idea, and communications policy, involving the delivery of the idea in message form to the target consumers. Apart from the problem that the consumer may not pay attention to the message, the absence of supervision by a health care professional means that there is no assurance that the persuasive message will be correctly interpreted, or that undesirable side-effects will not occur (for example, injuries from overexertion in a self-administered exercise program).

Preventive interventions may also be classified in terms of the

nature of the leverage used to implement them. Three principal forms of leverage are available to policy makers.

Legal Leverage

Standards can be established for the content, design, and performance of products, or to increase the safety of the environment and the workplace. Regulations, such as gun controls and speed limits, may also be used to govern the use of the product. Government agencies and legislation are commonly the source of such interventions, which may be directed at institutions and/or at the individual consumer. The political ethics of such measures have been discussed by Lalonde (1977). Legal interventions are most likely to be used when voluntary approaches have failed to achieve desired levels of compliance, or when the failure of an individual or organization to take action of a preventive nature is likely to threaten the health or safety of consumers. Health care providers would classify most interventions involving legal leverage as primary prevention.

The principal problems associated with mandatory interventions are limitations on the resources available to ensure compliance, the restricted range of activities that can constitutionally be dealt with in this manner, and consumer resistance to further restrictions of lifestyle (Wikler, 1978). If no public consensus exists on the seriousness of the problem, or if the public does not receive positive reinforcement for compliance (Ray et al., 1973), consumers may devote an undue amount of time and effort to avoiding the regulation. Nevertheless, the results of intervention may be expected to occur more rapidly and be more readily measurable when legal leverage is used, than when either of the other two approaches is used.

Financial Leverage

Taxes, subsidies, and prices can be manipulated to offer incentives or disincentives to consumers and institutions to take preventive action. Subsidized school lunches and health insurance coverage of preventive services offer incentives to consumers to undertake particular modes of behavior. Taxes on cigarettes or restrictions on the

availability of liquor represent cost-related disincentives. Insurance companies and other institutions may also offer financial (dis)incentives, which may be directed at organizations as well as individual consumers. In addition to specific (dis)incentives, potential market demand may be sufficient, in and of itself, to stimulate the development and marketing of products with a preventive function.

Problems associated with financial leverage include the differing responses among consumers or organizations to a fixed incentive or disincentive, and the possibility that such (dis)incentives may have less impact on the rich than on the poor. Furthermore, the attractiveness of preventive action may be a function as much of the costs of therapy as of the costs of prevention. Incentives and disincentives therefore cannot be established independent of consumer perceptions of the difference between these two costs. It is possible that a national health insurance scheme could reduce the impact of existing financial incentives and disincentives in the preventive health field.

Message Leverage

The written or spoken word can be used to persuade the consumer to adopt a preventive measure. The response will depend principally on how relevant the message seems to the consumer. Neither legal penalty nor direct financial loss is likely to result from noncompliance with the recommended preventive behavior. The motivating message may originate from a myriad of government and nongovernment sources, formal and informal sources, and be directed at individual consumers or organizations. The principal problem is that message leverage is commonly regarded as being less potent than either legal or financial leverage. Etzioni (1972), for example, has concluded that efforts to change behavior through persuasion are often less effective than legislation. Hilbert (1977) and Fielding (1978) also indicate that regulatory interventions have been more successful than persuasion. In the absence of controlled studies comparing the effectiveness of these two types of intervention in the preventive health care area, such conclusions must remain tentative. Note, however, that persuasive approaches to preventive health care have received attention only

in recent times, whereas regulatory approaches have been operational on an organized basis since the nineteenth century.

The three categories of leverage may be viewed as a continuum of increasingly potent and multifaceted interventions. Mandatory interventions often include both a financial and a message component. For example, gun control relies principally upon legal leverage, but financial penalties may be imposed in the event of infractions, and informative messages may be targeted at the consumer to announce the existence of the law and its associated penalties. Interventions that rely principally on financial leverage frequently embody a message component. Interventions that depend upon message leverage rely principally upon persuasion, rather than on explicit financial or legal incentives.

For a particular preventive health-care objective, allocation of resources among a mix of intervention approaches that rely on a combination of legal, financial, and message leverage will probably prove more cost effective than allocation of all available resources to the single best intervention approach. This is especially so when different segments of the target population are more or less responsive to different types of leverage. For example, achieving the objective of limiting per capita alcohol consumption may be facilitated by mandatory restrictions on the hours during which bars and liquor stores can remain open (legal leverage), taxes on alcoholic beverages (financial leverage), and an information campaign highlighting to the consumer the dangers of excessive alcohol consumption (message leverage). To focus on designing a mix of intervention approaches, rather than on finding the single best approach, is also to recognize that many health problems have multiple causes, and that some causes create multiple health problems. Automobiles, for example, can be responsible for accidents, pollution, and lack of exercise (Fielding, 1978).

Further research is necessary to assess the value to policy makers of the various approaches discussed in this section for classifying and distinguishing among preventive health-care interventions. Irrespective of the type of intervention, however, marketing principles are broadly applicable to the design and implementation of the programs. As an illustration, Table 1 shows the four elements of the marketing mix applied to a variety of preventive health interventions: compul-

TABLE 1
Marketing Principles Applied to Preventive Interventions

Elements of the Marketing Function	Examples of Intervention	
	Compulsory Use of Seat Belts	School Lunch Program
Product policy	Define standards for seat belts by vehicle type and usage (shoulder or lap straps); whether usage is mandatory for passenger as well as driver	Define minimum nutritional standards for single meal or sequence of meals; supply menu guidelines
Pricing policy	Impose penalties for noncompliance, perhaps graded according to number of offenses	Determine whether lunches are to be provided free, subsidized, or at full cost, and whether price should vary according to parental income
		Screening Program, High Blood Pressure: Interaction with Health System
		Exercise Program: No Interaction with Health System
		Design screening procedure to minimize apprehension and maximize convenience; screening personnel are included in the product concept
		Define appropriate levels of exercise for groups varying in physical condition or demographic profile. May be included in information pamphlet
		Decide whether screening is to be free, subsidized, or at full cost, and whether price should vary according to income or size of risk population. Consider price of follow-up treatment for those screened as 'positive'
		Distinguish programs that involve only equipment costs from those that involve a participation fee. Consider whether costs should be borne by users or by the general tax fund

Distribution policy	Deploy enforcement personnel. Determine applicability of regulation by vehicle type, geographical area	Set eligibility requirements for individuals and school districts; list schools and times at which lunches are available	Select types of facility, locations, and times for screening. Deploy screening personnel to minimize waiting time	Parks, recreational facilities, bicycle paths, should be readily accessible, open at convenient hours, be relatively uncrowded
Communications policy	Make consumers aware of the regulations, their reason, enforcement procedures, and penalties	Make parents aware of program availability, cost, nutritional value of meals. Persuade children to attend, eat the food provided, inform the institution if dissatisfied	Inform populations at risk of the existence of high blood pressure, its lack of symptoms, the need for checkups, availability of screening procedures, cost of screening (if any), nature of the procedure	Inform target groups of benefits of varying types of exercise; warn against overexertion; indicate where and how more information can be obtained. Ensure continuation of exercise program as well as trial

sory use of seat belts; a school lunch program; a screening program for high blood pressure; and an individual exercise program. Substantial differences exist among these interventions in terms of the types of approaches previously discussed. For example, compulsory use of seat belts represents a primary prevention involving legal leverage. The consumer must be actively involved in the adoption of a behavior that must be sustained to be effective, but no health care professional is involved. By way of contrast, a screening program for high blood pressure does require the involvement of a health care professional. The active participation of the consumer is necessary, but on a one-time rather than a continuing basis. Such a screening program represents a secondary prevention, promoted by message, and possibly financial, leverage. The remaining two types of preventive health interventions may be similarly analyzed.

As Table 1 indicates, all four elements of the marketing mix can be usefully applied to each type of intervention. Certain elements of the mix, however, may be more important in the design and implementation of one type of intervention than in another. Communications policy is clearly important to interventions that rely on message leverage and leave maximum discretion to the consumer, such as the program to encourage consumers to exercise. Hitherto, marketing has been regarded as applicable almost exclusively to this type of intervention, partly because of the mistaken tendency to equate marketing with advertising communications. Pricing policy is basic to the level of (dis)incentives incorporated in intervention programs that rely principally upon financial leverage. For example, the price of school lunches can be expected to influence the level of pupil response to the program. Similarly, the level of penalties may influence the degree of consumer compliance with a law that mandates the use of seat belts. Distribution policy is frequently overlooked in the design of screening programs that require interaction between the consumer and one or more health providers.

Further research must precede any attempt at more detailed generalizations regarding the appropriate marketing strategy for various types of preventive intervention. Suffice it to say, at this stage, that the role assigned to marketing, and the relative emphasis accorded each of the four elements of the marketing mix, should be tailored to

each intervention in light of the program objectives, previous experiences with similar interventions, and the evidence provided by consumer analysis.

Barriers to Successful Marketing

The major barriers that impede the successful application of marketing principles to preventive interventions include the widespread, inadequate understanding among health care professionals of marketing strategy and the design of effective communications programs; inadequate attention to consumer research; limitations on the rapid diffusion of prevention-oriented behavior among the population; the lack of generally accepted standards of measurement; and the attitudes of policy makers and health care professionals toward preventive health care in general and the role of marketing in particular. In reviewing these barriers, an attempt is made to highlight the different perspectives of marketers and of health care professionals.

Misunderstanding Marketing Strategy

One barrier to the adoption of marketing principles in the field of preventive health care is the poor reputation of marketing strategy fostered by the unsuccessful "marketing" campaign. Such campaigns are often in fact merely advertising campaigns devised without any consideration of three very important elements of the marketing mix—product, pricing, and distribution policies (Kotler, 1979).

Those who erroneously equate marketing with advertising are likely to instruct a "marketer" to "sell" a program that has already been designed. Successful marketing, however, requires that the marketer be involved at the program development stage, when the product concept is being formulated. The product concept is the set of benefits that the program, when implemented, delivers to the target group(s) of consumers. Since an excellent communications policy or advertising campaign cannot compensate for a poorly designed program that fails to take account of consumer needs, it is essential that the marketer be involved at the development stage. Occasionally, the program

or product may stem from a piece of legislation whose design is not in the control of the health care marketer. However, the legislation must be translated into a product concept, which will be articulated to the consumer. Even in the case of legislation-based programs, therefore, the health care marketer has a role to play in formulating product policy.

Except in standardized screening programs, the financial costs associated with adopting one or another prevention-oriented program may not be directly comparable. Nevertheless, in spite of the difficulty of comparison shopping in the area of preventive health care, consumers may associate different costs in time, emotional drain, and money with particular preventive programs. Indeed, because no emergency exists and adoption of a measure can safely be postponed, and because many health insurance plans do not cover the cost of preventive services, consumers may be extremely sensitive to the costs involved. It is the responsibility of the health care marketer to be aware of these feelings among consumers, and to set prices in such a way as to produce the maximum positive response from the target market. It is worth noting that, when the consumer tends to associate quality with price, setting the lowest possible price does not necessarily constitute the most effective pricing policy. A service that is free may be perceived as less valuable than one that is not.

A poorly designed distribution policy can also hamper a program's success. Where and when a particular prevention-oriented service is offered can influence consumer perceptions regarding the costs of obtaining it. A screening program available in a downtown location will appear more costly (in terms of time and transportation) to the suburban resident than to the downtown resident. If the location and timing of such programs are established with the goal of minimizing cost and inconvenience to consumers, utilization of health services and program participation may increase (Aday, 1975; Bellin and Geiger, 1973; Berkanovic and Marcus, 1976).

For preventive interventions that do not require the consumer to interact with a health care professional, the consumer may be able to determine where and when he will adopt a particular prevention-oriented measure, such as taking exercise, and thereby minimize his costs. However, some forms of exercise require the availability of

facilities such as gymnasiums and swimming pools; in this case the consumer's freedom to choose where and when to engage in the prevention-oriented activity is constrained. It is therefore essential that when such facilities are provided their location and distribution be considered in terms of the time and place most convenient for the consumer group(s) at whom they are targeted.

Misunderstanding Communications Policy

An ill-designed communications policy can reduce the success of a preventive intervention, particularly one that calls for the marketing of an idea rather than a tangible product or service (Schlinger, 1976).

A six-stage process is involved in developing an effective communications or information-dissemination policy (Quelch, 1977). First, the objectives set must be compatible with those of the overall marketing strategy associated with the intervention. Second, the population must be divided into target groups based, for example, on their relative risk of contracting a particular disease or on their information needs. Third, a message strategy must be developed to meet the information needs of each group. Fourth, the most appropriate mix of information-delivery vehicles or media must be selected, within budget limits, to convey the relevant information to each group. Fifth, a set of evaluative criteria must be established that reflect program objectives. Finally, the communications program must be implemented and follow-up evaluations conducted.

Health care professionals appear to share with marketers an appreciation of the need for clearly defined objectives, as being essential to the development of a successful communications strategy, but in the area of determining the media mix they sometimes misunderstand each other's perspective.

The tendency to equate marketing and advertising may prompt the misconception among some health educators that marketers do not recognize the value of face-to-face educational programs and word-of-mouth communications in effecting behavior change (Mendelsohn, 1973). However, marketers generally agree that although mass media approaches are appropriate for developing consumer awareness in the short term, face-to-face programs such as workplace encounters are

more effective (though not always cost effective) in changing behavior in the long term. In designing any communications policy, the marketer commonly considers the effects that may be achievable through the use of a mix of approaches, capitalizing on the strengths of each. In particular, many preventive interventions have very broad objectives that warrant serious consideration of the use of the mass media. Even though the percentages of consumers who change their behavior as a consequence may be much lower than that achievable through face-to-face approaches, the cost per result may also be lower.

A mix of communication methods is used, in part because of the variety of sources from which consumers may receive information on preventive health care, ranging from government agencies to the mass media and charitable organizations. Since many prevention programs overlap in their objectives, if not in their methods, the consumer may be confused by seemingly contradictory or nonreinforcing messages, and therefore lose some motivation. A similar loss of motivation can occur when the consumer is overwhelmed by the range of preventive health options and the sheer volume of information available. Information overload has been identified as a major limitation on the effective delivery of nutrition information (Jacoby, Chestnut, and Silberman, 1977). A further limitation has been highlighted by Fielding (1978), who notes that many of the charitable associations disseminating information on preventive health care focus on a particular organ of the body or on a particular disease. The roles of these organizations have been defined in terms of medical problems, rather than in terms of lifestyle problems as perceived and understood by consumers.

Like advertising, the value of public relations has also been questioned by health care professionals (Clarke, 1978). In planning communications policy for preventive interventions, the potential of an effective public relations campaign is therefore often ignored or overlooked. Messages delivered through the press, radio, and television have the advantage of being free, of being possibly more credible to the consumer, and, if accurate representation can be ensured, of offering more details than can be included in paid advertising. Frequently, the need for a paid advertising campaign can be obviated by a well-coordinated public relations program designed both to reach

consumers in the target group and to stimulate word-of-mouth communication among them.

Inadequate Consumer Research

Since the marketing concept focuses on satisfying consumer needs in the development of marketing strategies, considerable emphasis is placed on the evidence provided by consumer research. At the same time, the success of preventive interventions, whether they are targeted at individuals or organizations, so often depends upon the active and voluntary participation of the consumer that consumer research is essential. The use of consumer research is limited because it is expensive, time-consuming, and requires specialized personnel. Health care policy makers are frequently unable to delay action pending the findings of research. In addition, the legal training of many policy makers has emphasized conceptual arguments, rather than field research with consumers, as the principal basis for legislative decision-making. To be effective, consumer research must lead rather than follow policy-making (Wilkie and Gardner, 1974), and must be recognized as integral to program planning. Policy makers are increasingly acknowledging the value of consumer research as a means of reducing the risks and uncertainties associated with investments in new programs.

The applications of consumer research in the area of preventive health care have been reviewed by Quelch (1979b). Ongoing surveys of health status and prevention-oriented behavior provide data that permit overall health trends to be monitored. Segments of the population with differing health problems or different attitudes toward prevention can also be identified and profiled in terms of demographics, the use of health services, or other characteristics. Consumer research can play an important role in program pretesting. Consumer surveys can identify the relative attractiveness to the public of alternative interventions, including new or expanded preventive services. Controlled field experiments can provide measurements of attitudinal and behavioral response and permit evaluations of cost effectiveness. Follow-up consumer research can facilitate the monitoring of program effectiveness, to determine whether objectives for consumer attitude

and behavior modification are being achieved. In addition, the causes of success or failure can be established, and levels of consumer satisfaction can be investigated (Andreasen, 1978).

As an illustration, consumer research may be particularly useful in helping policy makers understand the reasons why behaviors are or are not adopted, or why preventive health care services are or are not utilized. Extensive research regarding what determines utilization has identified the importance of such factors as demographic and socioeconomic status (Bice et al., 1973; Luft, Hershey, and Morrel, 1976); accessibility (Salkever, 1976); levels of knowledge (Banks and Keller, 1971; Yarnell, 1976); attitudes of alienation (Bullough, 1972; Moody and Gray, 1972) and self-reliance (Philips, 1965; Langlie, 1977); and family orientation (Salloway and Dillon, 1973; Hoppe and Heller, 1975). However, despite extensive efforts, the state of knowledge has not advanced to the point where a successful preventive intervention can be designed in the absence of program-specific consumer research. Taken collectively, the studies reported above suggest that care-seeking behavior may be positively or negatively associated with level of family orientation, attitudes of self-reliance, or knowledge about the relation between prevention and disease.

Conflicting evidence of this nature may be explained in two ways. First, the factors that determine consumer response may vary among different types of preventive intervention. For example, adoption of preventive behaviors that do not require the consumer to interact with a health care professional may be more common among the more self-reliant consumers. Yet, for the very reason they are more self-reliant, they may be less inclined to undertake preventive behaviors that do require interaction with a health care professional. Second, the apparent contradictions suggest the existence of distinct groups of consumers, perhaps with different demographic and psychographic profiles, motivated by different influences to undertake or not to undertake particular prevention-oriented behaviors.

In sum, the academic research on consumer priorities in the area of preventive health care has not advanced far enough to provide normative generalizations that can guide program design and implementation. Thus, sound consumer research must be conducted as an input to the development of each specific preventive intervention, and to the formulation of any marketing strategy associated with its introduction.

Limitations on Behavior Change

Most preventive interventions aim, either directly or indirectly, to change consumer behavior. Their success is often limited by an inadequate understanding of the complexity and difficulty of the task. Robertson and Wortzel (1978) have suggested the application of Rogers's (1962) five conditions that determine how fast an innovation spreads. Although the applicability of these conditions has not been empirically verified, they do serve to illustrate the challenge facing the marketer in the field of preventive health.

Compatibility may be defined as "the degree to which an innovation is consistent with existing values and past experiences" (Rogers, 1962:126). Preventive interventions are often aimed at changing lifestyles and behaviors firmly rooted in the consumer's social environment. The patterns of food, alcohol, and tobacco consumption may frequently be reinforced by commercial messages. As pointed out by Hochbaum (1978), such changes frequently involve giving up something we like; often the process is unpleasant in itself, and the self-denial must continue for a lifetime. In contrast to self-help programs of this nature, screening programs generally require less of a behavioral adjustment. For example, parental agreement to screening for phenylketonuria (PKU) in a new-born child represents a one-time preventive intervention, involves low costs in money and time if the procedure is covered by medical insurance, and is likely to be perfectly compatible with the high sensitivity of the parents to the child's welfare at the time of birth. Other screening programs targeted at adults rather than children may encounter more resistance, stemming from a consumer's fear of pain, anxiety about discovering something unpleasant, the attitude that "nothing can be done" in the event of such a discovery, or the belief that "it can't happen to me." For these and other reasons, consumers may ignore information about preventive interventions that threaten existing lifestyles and value structures, through selective perception (Cannell and MacDonald, 1956).

The criteria for compatibility in Rogers's diffusion model have much in common with the principles of the Health Belief Model (Rosenstock, 1966). This model suggests that behavior modification is likely to be greatest among those consumers who are ready to change, for whom the adjustment is least traumatic, and for whom the incre-

mental benefit is most substantial among those at risk. Becker and Maiman (1975) have attempted to conceptualize a general structure for the Health Belief Model. The readiness to change may be increased when the consumer believes that the recommended behavior is compatible with the values of referents. As suggested by the Stanford study (Maccoby and Farquhar, 1975), if behavior modification occurs among the consumer's social reference groups or community, group reinforcement may increase the effectiveness of the intervention. Similarly, recent antismoking and drug-abuse advertising campaigns directed at teenagers have attempted to combat peer pressure through the use of other teenagers as referents and communicators of advertising messages.

The perceived compatibility of a proposed behavior change may be increased if emphasis is placed on secondary benefits that are more compatible with a consumer's existing set of values. Hypertension screening programs, for example, are being promoted on the basis of benefits to the participant's family ("Do it for the loved ones in your life"), rather than to the participant himself. Good nutrition practices are being promoted on the basis of their compatibility with the concept of "good value for your food dollar," in addition to their health-related benefits.

Established consumer attitudes toward the health care system are also of relevance in influencing the compatibility of a prevention-oriented behavior. The underutilization of health services by the disadvantaged has been explained in terms of their lack of affinity with middle-class health professionals (Hyman, 1970; Fabrega and Roberts, 1972). Note also that the existing behavior patterns of consumers are oriented toward curative medicine on an episodic basis (Cooper, Maxwell, and Kehoe, 1978). The traditional doctor-patient relationship has not encouraged consumers to believe that they can assume responsibility for their own care. Although increasing emphasis on preventive care enlarges the consumer's role in health care, many consumers are simply not conditioned to expect outreach from the health care system or mass communication on health care issues. Indeed, some consumers may resist efforts by health care professionals to influence their lifestyles.

Relative advantage is "the degree to which an innovation is superior

to ideas it supersedes" (Rogers, 1962:124). The benefits of preventive care are usually neither immediate nor readily apparent to the consumer. The amount of time and money that the consumer is prepared to invest in reducing the risks of future morbidity is likely to be conditioned by the consumer's orientation toward the future and the perceived value of an uncertain investment. Some consumers may prefer one month in the hospital to twenty years of self-sacrificing preventive care. In addition, when paying for services, they may perceive more value in diagnostic and therapeutic procedures based on technology than in good advice of a preventive nature.

Although more and more connections between lifestyle and disease incidence are being identified, there are few diseases whose etiology is related solely to factors under the consumer's control. In addition, the consumer cannot influence the air he breathes, his work environment, or his previous behavior. Under these circumstances, the relative advantage of regular exercise, not smoking, and good nutrition may seem problematic when the benefits of behavior change appear to be outweighed by factors beyond the consumer's control.

Complexity is "the degree to which an innovation is relatively difficult to understand or use" (Rogers, 1962:130). Different levels of perceived complexity are associated with different preventive interventions, partly as a function of each consumer's previous knowledge and experience. Some interventions, such as screening programs, involve the delivery of specific services. The consumer must be told the advantages of the service, eligibility requirements, appropriate triggering symptoms, where and when the service is available, and how much it costs. The complexity of procedures and supporting products used in the delivery of the service may also require explanation.

In the case of other self-help prevention programs (such as good nutrition and exercise), the consumer is advised to adopt an adjusted lifestyle rather than a specific service. Each individual's needs for preventive care are different. Standardized mass communications may be too general to be relevant to the individual consumer, or may err toward excessive complexity in the effort to cover all cases. In designing mass communications in the preventive care arena, a trade-off must often be made between accuracy and simplicity (Quelch, 1977).

If the specific behavioral actions required of the consumer are too complex to be communicated through mass communications, the consumer must be advised where to obtain further "customized" information.

Divisibility is "the degree to which an innovation may be tried on a limited basis" (Rogers, 1962:131). It is quite feasible for the consumer to undertake a prevention-oriented behavior for a short period of time. The problem remains, however, that the results of such behavior change may not be immediately obvious or directly attributable to the change. One week of nonsmoking is unlikely to eliminate smoker's cough, and one week of good nutrition practice is unlikely to correct an obesity problem.

The fact that the degree of divisibility, in the case of most preventive interventions, is at the discretion of the consumer is not conducive to sustained adoption of prevention-oriented behaviors such as exercising regularly or eating nutritiously. In addition, the lack of a specific exchange (as occurs when a consumer pays money for a good) and the consequent absence of an obvious point of ending add to the difficulty of sustaining self-help prevention programs.

Communicability is "the degree to which the results of an innovation may be diffused to others" (Rogers, 1962:132). The benefits associated with preventive practices may not be easy to explain, since they are intangible and frequently are couched in terms of probabilities and reduced risks, rather than in terms of absolute guarantees. The need to avoid being misleading, through overstatement or simplification of the scientific evidence, detracts from the potential persuasive force of communications on preventive interventions. The benefits of preventive behavior are not usually visible to the consumer or directly attributable to the new behavior, except through some vague notion of "feeling better." The results of such prevention-oriented behavior may not be obvious to the participant, who therefore can hardly be expected to communicate them to others.

Screening programs have an advantage over self-help prevention programs, in that they can provide the consumer with objective facts on performance. Howard, Rechnitzer, and Cunningham (1975) have reported a study involving the administration of a periodic stress "inoculation" test to managers on a voluntary basis. Each participant

received a quantified but readily understandable report after each test, with recommendations for action. The availability and perceived credibility of this information resulted in substantial word-of-mouth communication between participants and nonparticipants. As a result, the number of participants increased from one period to the next.

Measurement of Program Performance

The evaluation of marketing programs in the business sector is facilitated by the existence of a narrow set of clearly defined objectives, usually some combination of increased sales, profits, and share of the market. Although it is sometimes difficult to determine the exact contribution of the marketing program to the firm's overall operating results, the acceptance of standard performance criteria does permit simple comparisons among programs.

No similar set of common, universally accepted standards exists for the evaluation of preventive health care interventions. Thus, preventive interventions, and any marketing programs developed to assist in their implementation, are potentially open to criticism, whatever results are achieved. The probability of criticism for inadequate performance is further increased by the high standards for success expected and frequently achieved in diagnosis and therapy. To health professionals who are used to high rates of success from therapies and diagnostic procedures, a marketing program that changes the dietary behavior of only 5 percent of a target population may seem like a failure. Although differences between tasks cast doubt on the value of such comparisons, it should be acknowledged that marketers, who are usually more cautious than laymen in their estimate of the power of marketing, do tend to be satisfied with relatively small gains in sales, profits, and market shares. Health care professionals and marketers must realize that the two groups differ in their definitions of success (Cooper, Maxwell, and Kehoe, 1978).

In the absence of common standards of performance, such as changes in sales or profits, preventive interventions and their associated marketing programs must submit to cost-benefit or cost-effectiveness analysis (Green, 1974, 1977). To illustrate the difficulties associated with measuring the effectiveness of preventive inter-

ventions, let us consider the examples of gun control legislation, a nutrition education program, and a prevention-oriented screening program. A cost-benefit analysis of gun control legislation would be impeded by several factors, discussed in general by Wikler (1978): possible unevenness in the application of the law and in the resources allocated to enforcement; the difficulty of precisely determining the costs associated with the administration of a particular statute; the impossibility of establishing the private costs of compliance; the inability to measure the deterrent effect of the law as well as the conviction rate; and, finally, the difficulty of assessing what would have happened in the absence of the legislation.

Nutrition education programs also defy simple measurement of effectiveness. The effects of one nutrition intervention cannot be readily segregated from the impacts of other programs and intervening variables, particularly in light of the time lag that often exists between program inception and impact. Disagreement exists regarding what nutritional standards are appropriate to use as performance criteria. Moreover, it is difficult to assess the impact of changes in nutritional status stemming from dietary modifications, in terms of additional productivity, psychic gratifications, and reductions in expenditures for future health care.

Analysis of any diagnostic program requires an assessment of whether consumers who are identified as having the disease in question simply receive expensive treatment over a longer period of time than would be the case if the disease was identified later. A diagnostic screening program for a disease with a low incidence may identify a percentage of false positives who are then admitted to therapy. Undesirable side effects that require therapy may sometimes result from diagnostic procedures. Given such problems, it is not surprising that the cost effectiveness of the annual physical examination (McQuade, 1977), the Pap test (Foltz and Kelsey, 1978; Guzick, 1978), and other such procedures has been extensively questioned.

Problems of effective measurement also exist for therapies. However, in the case of therapies, cures can be counted as a measure of success. Three points may be made with respect to preventive programs. First, performance must be measured in terms of events that did not occur (Morgan, 1977). If no change in disease incidence is

recorded, in response to a preventive program, it may be deemed a failure, although the rate of incidence might have increased had the program not been in operation. Only quasi-experimental designs are available to test such a hypothesis. Second, the problem of establishing realistic, periodic goals for preventive programs is made more difficult by the lack of baseline data from previous efforts, against which performance levels can be measured. Third, evaluation is complicated by the fact that compliance with a preventive program may have negative side effects. Consider, for example, the consumer who gives up smoking but as a result experiences higher tension and puts on weight. Other problems associated with measuring the effectiveness of preventive programs have been reviewed by Lave and Lave (1977).

Attitudes toward Marketing

Health care professionals are sometimes unreceptive to integrating marketing principles in the design of preventive interventions. A recent survey of hospital administrators concluded that an image of hucksterism associated with the term "marketing" hinders the implementation of marketing functions in hospitals (Whittington and Dillon, 1978). In addition to ethical objections, there is widespread concern that the value of marketing in the preventive context is unproven. The risks associated with the development of marketing programs, as perceived by health care administrators, are both financial and social. Given the concern over inflation of health care costs, speculative investments in marketing programs, however laudable the objective, are likely to attract considerable scrutiny. A further constraint is uncertainty as to whether the marketing expenditures of health care organizations are reimbursable by governments and other funding sources. In addition, the health care administrator may associate a social risk with development of marketing programs—the risk of jeopardizing his relations with the powerful medical group within the institution.

Many health care organizations lack administrators with marketing expertise, and those that have hired such executives have sometimes experienced difficulty in successfully introducing them into the estab-

lished organizational structure. In many hospitals, for example, some parts of the marketing function have traditionally been carried out on a fragmented basis within departments of community services, public relations, and facilities planning. Under such circumstances, the establishment of a central marketing function presents severe difficulties and commonly requires an initiative from the highest level of the organization.

The attitudes toward marketing of other groups besides health care professionals are relevant to the success of preventive interventions. The reason is that, whereas diagnosis and therapy require the active involvement of a health care professional, not all preventive action necessarily takes place within the health care system. Prevention can take place at work, at home, and in the environment, independent of the involvement of health care professionals. Indeed, one rationale for preventive care—and a further reason for the often lukewarm support of the medical profession—is that responsibility is largely assumed by the consumer.

Other groups besides health care professionals are heavily involved in preventive health care. Many companies have instituted internal preventive programs to increase productivity and reduce absenteeism. Major corporations are able to take a long-term view of investment in preventive programs and are able to use moral suasion to encourage employee participation. In addition, companies whose products or services are related to consumer health frequently fund preventive education programs directed at consumers. These companies, in the insurance and food industries, for example, are strongly oriented toward marketing and employ marketing principles in designing and implementing their preventive programs. One possible negative consequence of the involvement of many groups in prevention should be noted. Fragmentation of responsibility for the delivery of preventive care may prompt some health care professionals to have a lower level of commitment to prevention than to therapy and diagnosis.

Attitudes toward Preventive Health Care

The degree to which marketing principles are applied to preventive health interventions may be in part a function of the degree to which

prevention is emphasized, relative to therapy and diagnosis, in the allocation of health care resources. There are some reasons for supposing that the rationales used to support increasing investments in preventive health care may increasingly be challenged.

It is often argued that an ounce of prevention is worth a pound of cure, the implication being that investment in preventive programs will reduce the demand for therapeutic services, and therefore reduce the overall costs of health care. For several reasons, this may not be true. First, to the extent that preventive programs reduce the premature onset of disease, they may increase average longevity, leaving more consumers to be treated for those diseases inevitably associated with the aging process. Second, preventive programs may heighten consumer sensitivity to illness, and therefore encourage additional interactions with health care professionals. Third, because of their consumer orientation, they may reduce the barriers that discourage some consumers from seeking care. Indeed, one frequent argument in favor of preventive outreach programs, emphasized during the immunization campaign against swine flu, is that they encourage the entry of consumers who are not currently reached by the health care system. Alternatively, consumers who adopt a particular prevention-oriented behavior might become self-assured to the extent of either ignoring other, perhaps more relevant, preventive approaches or delaying seeking care when ill. The interrelations of preventive, diagnostic, and therapeutic care-seeking behavior require further research.

The costs associated with preventive programs could be increased with the advent of full national health insurance with first-dollar coverage, since this could remove financial barriers to obtaining preventive services. However, Wortzel (1978), has indicated that demand for preventive services is related more to education and social class than to cost, so that full coverage may not increase demand among those consumers most in need. On the other hand, since diagnostic and therapeutic services would also be covered, consumers might have less incentive to concern themselves with preventive care.

Like consumers, many policy makers and legislators have difficulty identifying the impact of investing time and money in preventive programs (Novelli, 1978). Given the pressure to demonstrate effective usage of taxpayers' money in the short term, there may be a

temptation to invest funds in highly visible health care technology rather than in those comparatively mundane preventive programs that may have broader reach, but whose impact becomes evident more slowly and is less readily measurable. Thus, preventive programs may raise health care costs in the short term. Moreover, increased emphasis on prevention requires a protracted investment in the training of more specialists in preventive care. And there is evidence of spiraling costs associated with the administration of the school lunch and food stamp programs, which have been founded largely on the basis of their preventive care functions. If total health care costs remain a major public concern, policy makers, or even such proponents of preventive care as the administrators of health maintenance organizations, may not be particularly enthusiastic about making somewhat speculative investments in preventive programs.

Independent of the cost effectiveness, the health care professions do not appear to demonstrate a common enthusiasm for preventive interventions. The medical profession is trained to measure its success in terms of cures rather than preventions. Although it is generally assumed that cure results from therapy, the assumption that continued freedom from illness results from preventive measures meets some skepticism. The orientation of the medical profession toward achieving cures, and the perception of the lower skills required and the lower financial rewards associated with preventive care, suggest that there may be some professional resistance to shifting the emphasis toward prevention. To the extent that there is a relation between prevention and morbidity, the more the preventive programs are successful, the less the need for therapeutic care. Prevention may therefore not be wholly attractive to the medical profession. Medical school curricula have been criticized for placing insufficient emphasis on preventive care, particularly nutrition; dentistry and nursing schools have shown more progress in this regard. However, to be successful, many preventive programs require the support and preferably the involvement of physicians. Since patient-physician interactions present an opportunity to convey preventive information, raising the degree of physician commitment to prevention may have a substantial impact on the consumer, who perceives the physician as a credible source of information.

If the current level of enthusiasm for preventive interventions diminishes, the case for investment in the development of marketing programs may appear weak. Such a conclusion would be based on the misconception that substantial costs are necessarily associated with the use of marketing planning. Marketing programs are properly developed in light of existing resource constraints. It is the mistaken equation of marketing with advertising that encourages the belief that substantial financial outlays are automatically associated with marketing programs. In fact, the coordination and control implicit in a consumer-oriented marketing program are much more likely to improve the cost effectiveness of the preventive intervention in question than to result in an extravagant waste of resources. Thus, if the resources available for preventive interventions are limited, because of doubts regarding their cost effectiveness within the health care system, the application of marketing principles becomes even more relevant.

Conclusion

This paper has attempted to illustrate how marketing principles can be applied to the design and implementation of preventive health programs. Given the diversity of preventive interventions, it is reasonable to expect that the role of marketing, and the relative importance of each element of the marketing mix, should vary from one type of intervention to another. Additional research might usefully focus on the development of a taxonomy of preventive programs, in which each type of intervention is matched with the appropriate marketing strategies.

The interest that policy makers and administrators in the health care field are currently showing in marketing stems in part from their sympathy with its basic principle—the identification and satisfaction of consumer needs. But in order to realize the potential benefits of applying marketing principles to preventive interventions, health care professionals must clearly understand the nature of marketing planning, the components of communications policy, and the role of consumer research. Marketing activity should not be regarded as an

expensive, speculative drain on the program resources, but rather as a planning process that can guide the allocation of these resources toward a more effective result. At the same time, marketing practitioners must clearly understand the value system of the health care professionals with whom they are collaborating; the existence of different criteria for the measurement of success; and the unique problems of consumer behavior with respect to preventive health care.

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