A Case For Refocusing Upstream: The Political Economy Of Illness

John B. McKinlay[a, b]

[a]Healthcore–NERI, 480 Pleasant Street, Watertown, MA 02472, USA; [b]Massachusetts General Hospital, Harvard Medical School, Boston, MA 02114, USA

This article, originally published in 1975, introduced the metaphor of "upstream factors" to public health, one of the most influential concepts in public health. The article also defines a concept of "manufacturers of illness" as those public or private entities that benefit from resource flows that generate poor health. Several examples of manufacturers of illness are identified, including unhealthy food processors, sugar producers, advertisers and lobbyists. It is argued that social scientists have paid too little attention to the political economy of illness. The article concludes with recommendations for policy.

Upstream Factors | Social Determinants of Health | Population Health

My friend, Irving Zola, relates the story of a physician trying to explain the dilemmas of the modern practice of medicine:

> "You know," he said, "sometimes it feels like this. There I am standing by the shore of a swiftly flowing river and I hear the cry of a drowning man. So I jump into the river, put my arms around him, pull him to shore and apply artificial respiration. Just when he begins to breathe, there is another cry for help. So I jump into the river, reach him, pull him to shore, apply artificial respiration, and then just as he begins to breathe, another cry for help. So back in the river again, reaching, pulling, applying, breathing and then another yell. Again and again, without end, goes the sequence. You know, I am so busy jumping in, pulling them to shore, applying artificial respiration, that I have no time to see who the hell is upstream pushing them all in."[1]

I believe this simple story illustrates two important points. *First,* it highlights the fact that a clear majority of our resources and activities in the health field are devoted to what I term "downstream endeavors" in the form of superficial, categorical tinkering—in response to almost perennial shifts from one health issue to the next, without really solving anything. I am, of course, not suggesting that such efforts are entirely futile, or that a considerable amount of short-term good is not being accomplished. Clearly, people and groups have important immediate needs which must be recognized and attended to. Nevertheless, one must be wary of the *short-term nature* and *ultimate futility* of such downstream endeavors.

Second, the story indicates that we should somehow cease our preoccupation with this short-term, problem-specific tinkering and begin focusing our attention upstream, where the real problems lie. Such a reorientation would minimally involve an analysis of the means by which various individuals, interest groups, and large-scale, profit-oriented corporations are "pushing people in," and how they subsequently erect, at some point downstream, a health care structure to service the needs which they have had a hand in creating, and for which moral responsibility ought to be assumed.

In this paper two related themes will be developed. *First*, I wish to highlight the activities of the "manufacturers of illness"—those individuals, interest groups and organizations which, in addition to producing material goods and services, also produce as an inevitable by-product widespread morbidity and mortality. Arising out of this, and second, I will develop a case for focusing our attention away from those individuals and groups who are mistakenly held to be responsible for their condition, toward a range of broader upstream political and economic forces.

The task assigned to me for this conference was to review some of the broad social structural factors influencing the onset of heart disease and/or at-risk behavior. Since the issues covered by this request are so varied, I have, of necessity, had to make some decisions concerning both emphasis and scope. These decisions and the reasoning behind them should perhaps be explained at this point. With regard to what can be covered by the term "social structure," it is possible to isolate at least three separate levels of abstraction. One could, for example, focus on such subsystems as the family, and its associated social networks, and how these may be importantly linked to different levels of health status and the utilization of services.[2] On a second level, one could consider how particular organizations and broader social institutions, such as neighborhood and community structures, also affect the social distribution of pathology and at-risk behavior.[3] Third, attention could center on the broader political-economic spectrum, and how these admittedly more remote forces may be etiologically involved in the onset of disease....

...[In this paper] I will argue, for example, that the frequent failure of many health intervention programs can be largely attributed to the inadequate recognition we give to aspects of social context... . The most, important factor in deciding on the subject area of this paper, however, is the fact that, while there appears to be a newly emerging interest in the political economy of health care, social scientists have, as

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This article was originally published in 1975. Notwithstanding its status as one of the preeminent classics of the field, the article has been hard to find online since then. This classic article was originally published in *Applying Behavioral Science to Cardiovascular Risk,* published by the American Heart Association (AHA), 1975, and is reprinted here with the permission of the AHA for the educational benefit of IAPHS members. Any further reproduction must first secure the permission of the AHA.

yet, paid little attention to the *political economy of illness*.[4] It is my intention in this paper to begin to develop a case for the serious consideration of this particular area.

A political-economic analysis of health care suggests that the entire structure of institutions in the United States is such as to preclude the adequate provision of services.[5] Increasingly, it seems, the provision of care is being tied to the priorities of profit-making institutions. For a long time, criticism of U.S. health care focussed on the activities of the American Medical Association and the fee-for-service system of physician payment.[6] Lately, however, attention appears to be refocussing on the relationship between health care arrangements and the structure of big business.[7] It has, for example, been suggested that:

> ... with the new and apparently permanent involvement of major corporations in health, it is becoming increasingly improbable that the United States can redirect its health priorities without, at the same time, changing the ways in which American industry is organized and the ways in which monopoly capitalism works.[8]

It is my impression that many of the political-economic arguments concerning developments in the organization of health care also have considerable relevance for a holistic understanding of the etiology and distribution of morbidity, mortality, and at-risk behavior. In the following sections I will present some important aspects of these arguments in the hope of contributing to a better understanding of aspects of the political economy of illness.

An Unequal Battle

The downstream efforts of health researchers and practitioners against the upstream efforts of the manufacturers of illness have the appearance of an unequal war, *with a resounding victory assured for those on the side of illness* and the creation of disease-inducing behaviors. The battle between health workers and the manufacturers of illness is unequal on at least two grounds. In the *first* place, we always seem to arrive on the scene and begin to work after the real damage has already been done. By the time health workers intervene, people have already filled the artificial needs created for them by the manufacturers of illness and are habituated to various at-risk behaviors. In the area of smoking behavior, for example, we have an illustration not only of the lateness of health workers' arrival on the scene, and the enormity of the task confronting them, but also, judging by recent evidence, of the resounding defeat being sustained in this area.[9] To push the river analogy even further, the task becomes one of furiously swimming against the flow and finally being swept away when exhausted by the effort or through disillusionment with a lack of progress. So long as we continue to fight the battle downstream, and in such an ineffective manner, we are doomed to frustration, repeated failure, and perhaps ultimately to a sicker society.

Second, the promoters of disease-inducing behavior are manifestly more effective in their use of behavioral science knowledge than are those of us who are concerned with the eradication of such behavior. Indeed, it is somewhat paradoxical that we should be meeting here to consider how behavioral science knowledge and techniques can be effectively employed to reduce or prevent at-risk behavior, when that same body of knowledge has already been used to create the at-risk behavior we seek to eliminate. How embarrassingly ineffective are our mass-media efforts in the health field (e.g., alcoholism, obesity; drug abuse, safe driving, pollution, etc.) when compared with many of the tax-exempt promotional efforts on behalf of the illness generating activities of large-scale corporations.[10] It is a fact that we are demonstrably more effective in persuading people to purchase items they never dreamt they would need, or to pursue at-risk courses of action, than we are in preventing or halting such behavior. Many advertisements are so ingenious in their appeal that they have entertainment value in their own right and become embodied in our national folk humor. By way of contrast, many health advertisements lack any comparable widespread appeal, often appear boring, avuncular, and largely misdirected.

I would argue that one major problem lies in the fact that we are overly concerned with the war itself, and with how we can more effectively participate in it. In the health field we have unquestioningly accepted the assumptions presented by the manufacturers of illness and, as a consequence, have confined our efforts to only downstream offensives. A little reflection would, I believe, convince anyone that those on the side of health are in fact losing. . . . But rather than merely trying to win the war, we need to step back and question the premises, legitimacy and utility of the war itself.

The Binding of At-Riskness to Culture

It seems that the appeals to at-risk behavior that are engineered by the manufacturers of illness are particularly successful because they are constructed in such a way as to be inextricably bound with essential elements of our existing dominant culture. This is accomplished in a number of ways:

(a) Exhortations to at-risk behavior are often piggybacked on those legitimized values, beliefs, and norms which are widely recognized and adhered to in the dominant culture. The idea here is that if a person *would only do X*, then they would also be doing Y and Z.

(b) Appeals are also advanced which claim or imply that certain courses of at-risk action are subscribed to or endorsed by most of the culture heroes in society (e.g., people in the entertainment industry), or by those with technical competence in that particular field (e.g., "doctors" recommend it). The idea here is that if a person *would only do X*, then he/she would be doing pretty much the same as is done or recommended by such prestigious people as A and B.

(c) Artificial needs are manufactured, the fulfilling of which becomes absolutely essential if one is to be a meaningful and useful member of society. The idea here is that if a person *does not do X*, or *will not do X*, then they are either deficient in some important respect, or they are some kind of liability for the social system.

Variations on these and other kinds of appeal strategies have, of course, been employed for a long time now by the promoters of at-risk behavior. The manufacturers of illness

are, for example, fostering the belief that if you want to be an attractive, masculine man, or a "cool," "natural" woman, you will smoke cigarettes; that you can only be a good parent if you habituate your children to candy, cookies, etc.; and that if you are a truly loving wife, you will feed your husband foods that are high in cholesterol. All of these appeals have isolated some basic goals to which most people subscribe (e.g., people want to be masculine or feminine, good parents, loving spouses, etc.) and claim, or imply, that their realization is only possible through the exclusive use of their product or the regular display of a specific type of at-risk behavior. Indeed, one can argue that certain at-risk behaviors have become so inextricably intertwined with our dominant cultural system (perhaps even symbolic of it) that the routine public display of such behavior almost signifies membership in this society.

Such tactics for the habituation of people to at-risk behavior are, perhaps paradoxically, also employed to elicit what I term *quasi-health behavior.* Here again, an artificially constructed conception of a person in some fanciful state of physiological and emotional equilibrium is presented as the ideal state to strive for, if one is to meaningfully participate in the wider social system. To assist in the attainment of such a state, we are advised to consume a range of quite worthless vitamin pills, mineral supplements, mouthwashes, hair shampoos, laxatives, pain killers, etc. Clearly, one cannot exude radiance and success if one is not taking this vitamin or that mineral. The achievement of daily regularity is a prerequisite for an effective social existence. One can only compete and win after a good night's sleep, and this can only be ensured by taking such and such. An entrepreneurial pharmaceutical industry appears devoted to the task of making people overly conscious of these quasi-health concerns, and to engendering a dependency on products which have been repeatedly found to be ineffective, and even potentially harmful.[11]

There are no clear signs that such activity is being or will be regulated in any effective way, and the promoters of this quasi-health behavior appear free to range over the entire body in their never-ending search for new areas and issues to be linked to the fanciful equilibrium that they have already engineered in the mind of the consumer. By binding the display of at-risk and quasi-health behavior so inextricably to elements of our dominant culture, a situation is even created whereby to request people to change or alter these behaviors is more or less to request abandonment of dominant culture.

The term "culture" is employed here to denote that integrated system of values, norms, beliefs and patterns of behavior which, for groups and social categories in specific situations, facilitate the solution of social structural problems.[12] This definition lays stress on two features commonly associated with the concept of culture. The first is the interrelatedness and interdependence of the various elements (values, norms, beliefs, overt life-styles) that apparently comprise culture. The second is the view that a cultural system is, in some part, a response to social structural problems, and that it can be regarded as some kind of resolution of them. Of course, these social structural problems, in partial response to which a cultural pattern emerges, may themselves have been engineered in the interests of creating certain beliefs, norms, life styles, etc. If one assumes that culture can be regarded as some kind of reaction formation, then one must be mindful of the unanticipated social consequences of inviting some alteration in behavior which is a part of a dominant cultural pattern. The request from health workers for alterations in certain at-risk behaviors may result in either awkward dislocations of the interrelated elements of the cultural pattern, or the destruction of a system of values and norms, etc., which have emerged over time in response to situational problems. From this perspective, and with regard to the utilization of medical care, I have already argued elsewhere that, for certain groups of the population, underutilization may be healthy behavior, and the advocacy of increased utilization an unhealthy request for the abandonment of essential features of culture.[13]

The Case of Food

Perhaps it would be useful at this point to illustrate in some detail, from one pertinent area, the style and magnitude of operation engaged in by the manufacturers of illness. Illustrations are, of course, readily available from a variety of different areas, such as: the requirements of existing occupational structure, emerging leisure patterns, smoking and drinking behavior, and automobile us age.[14] Because of current interest, I have decided to consider only one area which is importantly related to a range of large chronic diseases—namely, the 161-billion-dollar industry involved in the production and distribution of food and beverages.[15] The present situation, with regard to food, was recently described as follows:

> The sad history of our food supply resembles the energy crisis, and not just because food nourishes our bodies while petroleum fuels the society. We long ago surrendered control of food, a vital resource, to private corporations, just as we surrendered control of energy. The food corporations have shaped the kinds of food we eat for their greater profits, just as the energy companies have dictated the kinds of fuel we use.[16]

From all the independent evidence available, and despite claims to the contrary by the food industry, a widespread decline has occurred during the past three decades in American dietary standards. Some forty percent of U.S. adults are overweight or downright fat.[17] The prevalence of excess weight in the American population as a whole is high—so high, in fact, that in some segments it has reached epidemic proportions.[18] There is evidence that the food industry is manipulating our image of food away from basic staples toward synthetic and highly processed items. It has been estimated that we eat between 21 and 25 percent fewer dairy products, vegetables, and fruits than we did twenty years ago, and from 70 to 80 percent more sugary snacks and soft drinks. Apparently, most people now eat more processed and synthetic foods than the real thing. There are even suggestions that a federal, nationwide survey would have revealed how serious our dietary situation really is, if the Nixon Administration had not cancelled it after reviewing some embarrassing preliminary results.[19] The survey apparently confirmed the trend toward deteriorating diets first detected in an earlier household food consumption survey in the years 1955–1965, undertaken by the Department of Agriculture.[20]

Of course, for the food industry, this trend toward deficient synthetics and highly processed items makes good economic sense. Generally speaking, it is much cheaper to make things look and taste like the real thing, than to actually

provide the real thing. But the kind of foods that result from the predominance of economic interests clearly do not contain adequate nutrition. It is common knowledge that food manufacturers destroy important nutrients which foods naturally contain, when they transform them into "convenience" high-profit items. To give one simple example: a wheat grain's outer layers are apparently very nutritious, but they are also an obstacle to making tasteless, bleached, white flour. Consequently, baking corporations "refine" fourteen nutrients out of the natural flour and then, when it is financially convenient, replace some of them with a synthetic substitute. In the jargon of the food industry, this flour is now "enriched." Clearly, the food industry employs this term in much the same way that coal corporations ravage mountainsides into mud flats, replant them with some soil and seedlings, and then proclaim their moral accomplishment in "rehabilitating" the land. While certain types of food processing may make good economic sense, it may also result in a deficient end product, and perhaps even promote certain diseases. The bleaching and refining of wheat products, for example, largely eliminates fiber or roughage from our diets, and some authorities have suggested that fiber-poor diets can be blamed for some of our major intestinal diseases.[21]

A vast chemical additive technology has enabled manufacturers to acquire enormous control over the food and beverage market and to foster phenomenal profitability. It is estimated that drug companies alone make something like $500 million a year through chemical additives for food. I have already suggested that what is done to food, in the way of processing and artificial additives, may actually be injurious to health. Yet, it is clear that, despite such well-known risks, profitability makes such activity well worthwhile. For example, additives, like preservatives, enable food that might perish in a short period of time to endure unchanged for months or even years. Food manufacturers and distributors can saturate supermarket shelves across the country with their products because there is little chance that they will spoil. Moreover, manufacturers can purchase vast quantities of raw ingredients when they are cheap, produce and stockpile the processed result, and then withhold the product from the market for long periods, hoping for the inevitable rise in prices and the consequent windfall.

The most widely used food additive (although it is seldom described as an additive) is "refined" sugar. Food manufacturers saturate our diets with the substance from the day we are born until the day we die. Children are fed breakfast cereals which consist of 50 percent sugar.[22] The average American adult consumes 126 pounds of sugar each year—and children, of course, eat much more. For the candy industry alone, this amounts to around $3 billion each year. The American sugar mania, which appears to have been deliberately engineered, is a major contributor to such diseases of civilization as diabetes, coronary heart disease, gall bladder illness, and cancer—all the insidious, degenerative conditions which most often afflict people in advanced capitalist societies, but which "underdeveloped," non-sugar-eaters never get. One witness at a recent meeting of a U.S. Senate Committee said that if the food industry were proposing sugar today as a new food additive, its "metabolic behavior would undoubtedly lead to its being banned."[23]

In sum, therefore, it seems that the American food industry is mobilizing phenomenal resources to advance and bind us to its own conception of food. We are bombarded from childhood with $2 billion worth of deliberately manipulative advertisements each year, most of them urging us to consume, among other things, as much sugar as possible. To highlight the magnitude of the resources involved, one can point to the activity of one well-known beverage company, Coca-Cola, which alone spent $71 million in 1971 to advertise its artificially flavored, sugar-saturated product. Fully recognizing the enormity of the problem regarding food in the United States, Zwerdling offers the following advice:

> Breaking through the food industry will require government action—banning or sharply limiting use of dangerous additives like artificial colors and flavors and sugar, and requiring wheat products to contain fiber-rich wheat germ, to give just two examples. Food, if it is to become safe, will have to become part of politics.[24]

The Ascription Of Responsibility And Moral Entrepreneurship

So far, I have considered, in some detail, the ways in which industry, through its manufacture and distribution of a variety of products, generates at-risk behavior and disease. Let us now focus on the activities of health workers further down the river and consider their efforts in a social context, which has already been largely shaped by the manufacturers upstream.

Not only should we be mindful of the culturally disruptive and largely unanticipated consequences of health intervention efforts mentioned earlier, but also of the underlying ideology on which so much of this activity rests. Such intervention appears based on an assumption of the *culpability of individuals* or groups who either manifest illness, or display various at-risk behaviors.

From the assumption that individuals and groups with certain illnesses or displaying at-risk behavior are responsible for their state, it is a relatively easy step to advocating some changes in behavior on the part of those involved. By ascribing culpability to some group or social category (usually ethnic minorities and those in lower socio-economic categories) and having this ascription legitimated by health professionals and accepted by other segments of society, it is possible to mobilize resources to change the offending behavior. Certain people are responsible for not approximating, through their activities, some conception of what *ought* to be appropriate behavior on their part. When measured against the artificial conception of what ought to be, certain individuals and groups are found to be deficient in several important respects. They are *either* doing something that they ought not to be doing, *or* they are not doing something that they ought to be doing. If only they would recognize their individual culpability and alter their behavior in some appropriate fashion, they would improve their health status or the likelihood of not developing certain pathologies. On the basis of this line of reasoning, resources are being mobilized to bring those who depart from the desired conception into conformity with what is thought to be appropriate behavior. To use the upstream-downstream analogy, one could argue that people are blamed (and, in a sense, even punished) for not being able to swim after they, perhaps even against their own volition, have been pushed into the river by the manufacturers of illness.

Clearly, this ascription of culpability is not limited only to the area of health. According to popular conception, people in poverty are largely to blame for their social situation, although recent evidence suggests that a social welfare system which prevents them from avoiding this state is at least partly responsible.[25] Again, in the field of education, we often hold "dropouts" responsible for their behavior, when evidence suggests that the school system itself is rigged for failure.[26] Similar examples are readily available from the fields of penology, psychiatry, and race relations.[27]

Perhaps it would be useful to briefly outline, at this point, what I regard as a bizarre relationship between the activities of the manufacturers of illness, the ascription of culpability, and health intervention endeavors. *First*, important segments of our social system appear to be controlled and operated in such a way that people must inevitably fail. The fact is that there is often no choice over whether one can find employment, whether or not to drop out of college, involve oneself in untoward behavior, or become sick. *Second*, even though individuals and groups lack such choice, they are still blamed for not approximating the artificially contrived norm and are treated as if responsibility for their state lay entirely with them. For example, some illness conditions may be the result of particular behavior and/or involvement in certain occupational role relationships over which those affected have little or no control.[28] *Third*, after recognizing that certain individuals and groups have "failed," we establish, at a point downstream, a substructure of services which are regarded as evidence of progressive beneficence on the part of the system. Yet, it is this very system which had a primary role in manufacturing the problems and need for these services in the first place.

It is around certain aspects of life style that most health intervention endeavors appear to revolve and this probably results from the observability of most at-risk behavior. The modification of at-risk behavior can take several different forms, and the intervention appeals that are employed probably vary as a function of which type of change is desired. People can *either* be encouraged to stop doing what they are doing which appears to be endangering their survival (e.g., smoking, drinking, eating certain types of food, working in particular ways); *or* they can be encouraged to adopt certain new patterns of behavior which seemingly enhance their health status (e.g., diet, exercise, rest, eat certain foods, etc.). I have already discussed how the presence or absence of certain life styles in some groups may be a part of some wider cultural pattern which emerges as a response to social structural problems. I have also noted the potentially disruptive consequences to these cultural patterns of intervention programs. Underlying all these aspects is the issue of behavior control and the attempt to enforce a particular type of behavioral conformity. It is more than coincidental that the at-risk life styles, which we are all admonished to avoid, are frequently the type of behaviors which depart from and, in a sense, jeopardize the prevailing puritanical, middle-class ethic of what ought to be. According to this ethic, activities as pleasurable as drinking, smoking, overeating, and sexual intercourse must be harmful and ought to be eradicated.

The important point here is which segments of society and whose interests are health workers serving, and what are the ideological consequences of their actions.[29] Are we advocating the modification of behavior for the *exclusive* purpose of improving health status, or are we using the question of health as a means of obtaining some kind of moral uniformity through the abolition of disapproved behaviors? To what extent, if at all, are health workers actively involved in some wider pattern of social regulation?[30]

Such questions also arise in relation to the burgeoning literature that links more covert personality characteristics to certain illnesses and at-risk behaviors. Capturing a great deal of attention in this regard are the recent studies which associate heart disease with what is termed a Type A personality. The Type A personality consists of a complex of traits which produces: excessive competitive drive, aggressiveness, impatience, and a harrying, sense of time urgency. Individuals displaying this pattern seem to be engaged in a chronic, ceaseless and often fruitless struggle with themselves, with others, with circumstances, with time, sometimes with life itself. They also frequently exhibit a free-floating, but well-rationalized form of hostility, and almost always a deep-seated insecurity.[31]

Efforts to change Type A traits appear to be based on some ideal conception of a relaxed, non-competitive, phlegmatic individual to which people are encouraged to conform.[32] Again, one can question how realistic such a conception is in a system which daily rewards behavior resulting from Type A traits. One can clearly question the ascription of near exclusive culpability to those displaying Type A behavior when the context within which such behavior is manifest is structured in such a way as to guarantee its production. From a cursory reading of job advertisements in any newspaper, we can see that employers actively seek to recruit individuals manifesting Type A characteristics, extolling them as positive virtues.[33]

My earlier point concerning the potentially disruptive consequences of requiring alterations in life style applies equally well in this area of personality and disease. If health workers manage to effect some changes away from Type A behavior in a system which requires and rewards it, then we must be aware of the possible consequences of such change in terms of future failure. Even though the evidence linking Type A traits to heart disease appears quite conclusive, how can health workers ever hope to combat and alter it when such characteristics are so positively and regularly reinforced in this society?

The various points raised in this section have some important moral and practical implications for those involved in health-related endeavors. *First*, I have argued that our prevailing ideology involves the ascription of culpability to particular individuals and groups for the manifestation of either disease or at-risk behavior: *Second*, it can be argued that so-called "health professionals" have acquired a mandate to determine the morality of different types of behavior and have access to a body of knowledge and resources which they can "legitimately" deploy for its removal or alteration. (A detailed discussion of the means by which this mandate has been acquired is expanded in a separate paper.) *Third*, [it] is possible to argue that a great deal of health intervention is, perhaps unwittingly, part of a wide pattern of social regulation. We must be clear both as to whose interests we are serving, and the wider implications and consequences of the activities we support through the application of our expertise. *Finally*, it is evident from arguments I have presented that much of our health intervention fails to take adequate account of the social contexts which foster and reinforce the behaviors we seek to

alter. The literature of preventive medicine is replete with illustrations of the failure of context-less health intervention programs.

The Notion of a Need Hierarchy

At this point in the discussion I shall digress slightly to consider the relationship between the utilization of preventive health services and the concept of need as manifest in this society. We know from available evidence that upper socio-economic groups are generally more responsive to health intervention activities than are those of lower socio-economic status. To partially account for this phenomenon, I have found it useful to introduce the notion of a *need hierarchy.* By this I refer to the fact that some needs (e.g., food, clothing, shelter) are probably universally recognized as related to sheer survival and take precedence, while other needs, for particular social groups, may be perceived as less immediately important (e.g., dental care, exercise, balanced diet). In other words, I conceive of a *hierarchy of needs,* ranging from what could be termed "primary needs" (which relate more or less to the universally recognized immediate needs for survival) through to "secondary needs" (which are not always recognized as important and which may be artificially engineered by the manufacturers of illness). Somewhere between the high priority, primary needs and the less important, secondary needs are likely to fall the kinds of need invoked by preventive health workers. Where one is located at any point in time on the need hierarchy (i.e., which particular needs are engaging one's attention and resources) is largely a function of the shape of the existing social structure and aspects of socioeconomic status.

This notion of a hierarchy of needs enables us to distinguish between the health and illness behavior of the affluent and the poor. Much of the social life of the wealthy clearly concerns secondary needs, which are generally perceived as lower than most health-related needs on the need hierarchy. If some pathology presents itself, or some at-risk behavior is recognized, then they naturally assume a priority position, which eclipses most other needs for action. In contrast, much of the social life of the poor centers on needs which are understandably regarded as being of greater priority than most health concerns on the need hierarchy (e.g., homelessness, unemployment). Should some illness event present itself, or should health workers alert people and groups in poverty to possible further health needs, then these needs inevitably assume a position of relative low priority and are eclipsed, perhaps indefinitely, by more pressing primary needs for sheer existence.

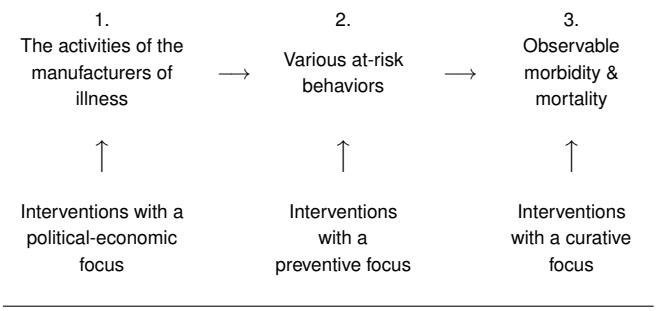
From such a perspective, I think it is possible to understand why so much of our health intervention fails in those very groups, at highest risk to morbidity, whom we hope to reach and influence. The appeals that we make in alerting them to possible future needs simply miss the mark by giving inadequate recognition to those primary needs which daily preoccupy their attention. Not only does the notion of a need hierarchy emphasize the difficulty of contextless intervention programs, but it also enables us to view the rejection as a non-compliance with health programs, as, in a sense, rational behavior.

How Preventive Is Prevention?

With regard to some of the arguments I have presented, concerning the ultimate futility of downstream endeavors, one may respond that effective preventive medicine does, in fact, take account of this problem. Indeed, many preventive health workers are openly skeptical of a predominantly curative perspective in health care. I have argued, however, that even our best preventive endeavors are misplaced in their almost total ascription of responsibility for illness to the afflicted individuals and groups, and through the types of programs which result. While useful in a limited way, the preventive orientation is itself largely a downstream endeavor through its preoccupation with the avoidance of at-risk behavior in the individual and with its general neglect of the activities of the manufacturers of illness which foster such behavior.

Figure 1 is a crude diagrammatic representation of an overall process starting with (1) the activities of the manufacturers of illness, which (2) foster and habituate people to certain at-risk behaviors, which (3) ultimately result in the onset of certain types of morbidity and mortality.[34] The predominant curative orientation in modern medicine deals almost exclusively with the observable patterns of morbidity and mortality, which are the *end-points* in the process. The much-heralded preventive orientation focuses on those behaviors which are known to be associated with particular illnesses and which can be viewed as the *midpoint* in the overall process. Still left largely untouched are the entrepreneurial activities of the manufacturers of illness, who, through largely unregulated activities, foster the at-risk behavior we aim to prevent. This *beginning point* in the process remains unaffected by most preventive endeavors, even though it is at this point that the greatest potential for change, and perhaps even ultimate victory, lies.

Figure 1: Three levels of assuring the public's health



It is clear that this paper raises many questions and issues at a general level—more in fact than it is possible to resolve. Since most of the discussion has been at such an abstract level and focus concerned with broad political and economic forces, any ensuing recommendations for change must be broad enough to cover the various topics discussed. Hopefully, the preceding argument will also stimulate discussion toward additional recommendations and possible solutions. Given the scope and direction of this paper and the analogy I have employed to convey its content, the task becomes of the order of constructing fences upstream *and* restraining those who, in the interest of corporate profitability, continue to push people in. In this concluding section I will confine my remarks

to three selected areas of recommendations.

Recommended Action

Legislative Intervention. It is probably true that one stroke of effective health legislation is equal to many separate health intervention endeavors and the cumulative efforts of innumerable health workers over long periods of time. In terms of winning the war which was described earlier, greater changes will result from the continued politicization of illness than from the modification of specific individual behaviors. There are many opportunities for a legislative reduction of at-riskness, and we ought to seize them. Let me give one suggestion which relates to earlier points in this paper. Widespread public advertising is importantly related to the growth and survival of large corporations. If it were not so demonstrably effective, then such vast sums of money and resources would not be devoted to this activity. Moreover, as things stand at present, a great deal of advertising is encouraged through granting it tax exempt status on some vague grounds of public education.[35] To place more stringent, enforceable restrictions on advertising, would be to severely curtail the morally abhorrent pushing in activities of the manufacturers of illness. It is true that large corporations are ingenious in their efforts to avoid the consequences of most of the current legislative restrictions on advertising which only prohibit certain kinds of appeals.

As a possible solution to this and in recognition of the moral culpability of those who are actively manufacturing disease, I conceive of a ratio of advertising to health tax or a ratio of risk to benefit tax (RRBT). The idea here is to, in some way, match advertising expenditures to health expenditures. The precise weighting of the ratio could be determined by independently ascertaining the severity of the health effects produced by the manufacture and distribution of the product by the corporation. For example, it is clear that smoking is injurious to health and has no redeeming benefit. Therefore, for this product, the ratio could be determined as say, 3-to-1, where, for example, a company which spends a non-tax deductible $1 million to advertise its cigarettes would be required to devote a non-tax deductible $3 million to the area of health. In the area of quasi-health activities, where the product, although largely useless, may not be so injurious (e.g., nasal sprays, pain killers, mineral supplements, etc.), the ratio could be on, say, a 1-to-1 basis.

Of course, the manufacturers of illness, at the present time, do "donate" large sums of money for the purpose of research, with an obvious understanding that their gift should be reciprocated. In a recent article, Nuehring and Markle touch on the nature of this reciprocity:

> One of the most ironic pro-cigarette forces has been the American Medical Association. This powerful health organization took a position in 1965 clearly favorable to the tobacco interests. . . In addition, the A.M.A. was, until 1971, conspicuously absent from the membership of the National Interagency Council on Smoking and Health, a coalition of government agencies and virtually all the national health organizations, formed in 1964. The A.M.A.'s largely pro-tobacco behavior has been linked with the acceptance of large research subsidies from the tobacco industry—amounting, according to the industry, to some 18 million dollars.[36]

Given such reciprocity, it would be necessary for this health money from the RRBT to be handled by a supposedly independent government agency, like the FDA or the FTC, for distribution to regular research institutions as well as to consumer organizations in the health field, which are currently so unequally pitted against the upstream manufacturers of illness. Such legislation would, I believe, severely curtail corporate "pushing in" activity and publicly demonstrate our commitment to effectively regulating the source of many health problems.

The Question of Lobbying. Unfortunately, due to present arrangements, it is difficult to discern the nature and scope of health lobbying activities. If only we could locate (a) who is lobbying for what, (b) who they are lobbying with, (c) what tactics are being employed, and (d) with what consequences for health legislation. Because these activities are likely to jeopardize the myths that have been so carefully engineered and fed to a gullible public by both the manufacturers of illness *and* various health organizations, they are clothed in secrecy.[37] Judging from recent newspaper reports, concerning multimillion dollar gift-giving by the pharmaceutical industry to physicians, the occasional revelation of lobbying and political exchange remains largely unknown and highly newsworthy. It is frequently argued that lobbying on behalf of specific legislation is an essential avenue for public input in the process of enacting laws. Nevertheless, the evidence suggests that it is often, by being closely linked to the distribution of wealth, a very one-sided process. As it presently occurs, many legitimate interests on a range of health related issues do not have lobbying in proportion to their numerical strength and may actually be structurally precluded from effective participation. While recognizing the importance of lobbying activity and yet feeling that for certain interests its scope ought to be severely curtailed (perhaps in the same way as the proposed regulation and publication of political campaign contributions), I am, to be honest, at a loss as to what should be specifically recommended.... The question is quite apart from the specific issue of changing individual behavior, *in what ways could we possibly regulate the disproportionately influential lobbying activities of certain interest groups in the health field?*

Public Education. In the past, it has been common to advocate the education of the public as a means of achieving an alteration in, the behavior of groups at risk to illness. Such downstream educational efforts rest on "blaming the victim" assumptions and seek to *either* stop people doing what we feel they "ought not" to be doing, *or* encourage them to do things they "ought" to be doing, but are not. Seldom do we educate people (especially schoolchildren) about the activities of the manufacturers of illness and about how they are involved in many activities unrelated to their professed area of concern. How many of us know, for example, that for any average Thanksgiving dinner, the turkey may be produced by the Greyhound Corporation, the Smithfield Ham by ITT, the lettuce by Dow Chemical, the potatoes by Boeing, the fruits and vegetables by Tenneco or the Bank of America?[38] I would reiterate that I am not opposed to the education of people who are at risk to illness, with a view to altering their behavior to enhance life chances (if this can be done successfully). However, I would add the proviso that if we remain committed to the education of people, we must ensure that they are

being told the whole story. And, in my view, immediate priority ought to be given to the sensitization of vast numbers of people to the upstream activities of the manufacturers of illness, some of which have been outlined in this paper. Such a program, actively supported by the federal government (perhaps through revenue derived from the RRBT), may foster a groundswell of consumer interest which, in turn, may go some way toward checking the disproportionately influential lobbying of the large corporations and interest groups.

Notes

[1]I.K. Zola, "Helping Does It Matter: The Problems and Prospects of Mutual Aid Groups." Addressed to the United Ostomy Association, 1970.

[2]See, for example, M.W. Susser and W. Watson, Sociology in Medicine, New York: Oxford University Press, 1971. Edith Chen, et al., "Family Structure in Relation to Health and Disease." *Journal of Chronic Diseases,* Vol. 12 (1960), p. 554-567; and R. KeeIner, *Family III Health: An Investigation in General Practice,* Charles C. Thomas, 1963. There is, of course, voluminous literature which relates family structure to mental illness. Few studies move to the level of considering the broader social forces which promote the family structures which are conducive to the onset of particular illnesses. With regard to utilization behavior, see J.B. McKinlay, "Social Networks, Lay Consultation and Help-Seeking Behavior," *Social Forces,* Vol. 51, No. 3 (March, 1973), pp. 275-292.

[3]A rich source for a variety of materials included in this second level is H.E. Freeman, S. Levine, and L.G. Reeder (Eds.), *Handbook of Medical Sociology,* New Jersey: Prentice-Hall, 1972. I would also include here studies of the health implications of different housing patterns. Recent evidence suggests that housing—even when highly dense—may not be directly related to illness.

[4]There have, of course, been many studies, mainly by epidemiologists, relating disease patterns to certain occupations and industries. Seldom, however, have social scientists pursued the consequences of these findings in terms of a broader political economy of illness. One exception to this statement can be found in studies and writings on the social causes and consequences of environmental pollution. For a recent elementary treatment of some important issues in this general area, see H. Waitzkin and B. Waterman, *The Exploitation of Illness in Capitalist Society,* New York: Bobbs-Merrill Co., 1974.

[5]Some useful introductory readings appear in D.M. Gordon (Ed.), *Problems in Political Economy: An Urban Perspective,* Lexington: D.C. Heath & Co., 1971, and R. C. Edwards, M. Reich and .T. E. Weisskopf (Eds.), The Capitalist System, New Jersey: Prentice-Hall, 1972. Also, T Christoffel, D. Finkelhor and D. Gilbarg (Eds.), Up Against the American Myth, New York: Holt, Rinehart and Winston, 1970. M. Mankoff (Ed.), *The Poverty of Progress: The Political Economy of American Social Problems*, New York: Holt, Rinehart and Winston, 1972. For more sophisticated treatment see the collection edited by D. Mermelstein, Economics: *Mainstream Readings and Radical Critiques,* New York: Random House, 1970. Additionally useful papers appear in J. B. McKinlay (Ed.), *Politics and Law in Health Care Policy.* New York: Prodist, 1973, and J. B. McKinlay (Ed.), *Economic Aspects of Health Care,* New York: Prodist, 1973. For a highly readable and influential treatment of what is termed "the medical industrial complex," see B. and J. Ehrenreich, *The American Health Empire: Power, Profits and Politics,* New York: Vintage Books, 1971. Also relevant are T. R. Marmot, *The Politics of Medicare,* Chicago: Aldine Publishing Co., 1973, and R. Alford, "The Political Economy of Health Care: Dynamics Without Change," *Politics and Society,* 2 (1972), pp. 127-164.

[6]E. Cray, In *Failing Health: The Medical Crisis and the AMA,* Indianapolis: Bobbs-Merrill, 1970. J.S. Burrow, *AMA—Voice of American Medicine,* Baltimore: Johns Hopkins Press, 1963. R. Harris, *A Sacred Trust,* New York: New American Library, 1966. R. Carter, *The Doctor Business,* Garden City, New York: Dolphin Books, 1961. "The American Medical Association: Power, Purpose and Politics in Organized Medicine," *Yale Law Journal,* Vol. 63, No. 7 (May, 1954), pp. 938-1021.

[7]See references under footnote 5, especially B. and J. Ehrenreich's *The American Health Empire,* Chapter VII, pp. 95-123.

[8]D.M. Gordon (Ed.), *Problems in Political Economy: An Urban Perspective,* Lexington: D.C. Heath & Co., 1971, p. 318.

[9]See, for example, D. A. Bernstein, "The Modification of Smoking Behavior: An Evaluative Review," *Psychological Bulletin,* Vol. 71 (June, 1569), pp. 418-440; S. Ford and F. Ederer, "Breaking the Cigarette Habit," *Journal of American Medical Association,* 194 (October, 1965), pp. 139-142; C. S. Keutzer, et al., "Modification of Smoking Behavior: A Review," *Psychological Bulletin,* Vol. 70 (December, 1968), pp. 520-533. Mettlin considers evidence concerning the following techniques for modifying smoking behavior: (1) behavioral conditioning, (2) group discussion, (3) counseling, (4) hypnosis, (5) interpersonal communication, (6) self-analysis. He concludes that each of these approaches suggests that smoking behavior is the result of some finite set of social and psychological variables, yet none has either demonstrated any significant powers in predicting the smoking behaviors of an individual or led to techniques of smoking control that considered alone, have significant long-term effects. In C. Mettlin, "Smoking as Behavior: Applying a Social Psychological Theory," *Journal of Health and Social Behavior, 14 (June, 1973), p. 144.*

[10]It appears that a considerable proportion of advertising by large corporations is tax exempt through being granted the status of "public education." In particular, the enormous media campaign, which was recently waged by major oil companies in an attempt to preserve the public myths they had so carefully constructed concerning their activities, was almost entirely non-taxable.

[11]Reports of the harmfulness and ineffectiveness of certain products appear almost weekly in the press. As I have been writing this paper, I have come across reports of the low quality of milk, the uselessness of cold remedies, the health dangers in frankfurters, the linking of the use of the aerosol propellant, vinyl chloride, to liver cancer. That the Food and Drug Administration (F.D.A.) is unable to effectively regulate the manufacturers of illness is evident and illustrated in their inept handling of the withdrawal of the drug, betahistine hy-

drochloride, which supposedly offered symptomatic relief of Meniere's Syndrome (an affliction of the inner ear). There is every reason to think that this case is not atypical. For additionally disquieting evidence of how the Cigarette Labeling and Advertising Act of 1965 actually curtailed the power of the F.T.C. and other federal agencies from regulating cigarette advertising and nullified all such state and local regulatory efforts, see L. Fritschier, *Smoking and Politics: Policymaking and the Federal Bureaucracy,* New York: Meredith, 1969, and T. Whiteside, *Selling Death: Cigarette Advertising and Public Health,* New York: Liveright, 1970. Also relevant are *Congressional Quarterly*, 27 (1969) 666, 1026; and U.S. Department of Agriculture, Economic Research Service, *Tobacco Situation*, Washington: Government Printing Office, 1969.

[12]The term "culture" is used to refer to a number of other characteristics as well. However, these two appear to be commonly associated with the concept. See J. B. McKinlay, "Some Observations on the Concept of a Subculture." (1970).

[13]This has been argued in J. B. McKinlay, "Some Approaches and Problems in the Study of the Use of Services," *Journal of Health and Social Behavior,* Vol. 13 (July, 1972), pp. 115-152; and J. B. McKinlay and D. Dutton, "Social Psychological Factors Affecting Health Service Utilization," chapter in *Consumer Incentives for Health Care,* New York: Prodist Press, 1974.

[14]Reliable sources covering these areas are available in many professional journals in the fields of epidemiology, medical sociology, preventive medicine, industrial and occupational medicine and public health. Useful references covering these and related areas appear in J. N. Morris, *Uses of Epidemiology,* London: E. and S. Livingstone Ltd., 1967; and M. W. Susser and W. Watson, *Sociology in Medicine,* New York: Oxford University Press, 1971.

[15]D. Zwerdling, "Death for Dinner," *The New York Review of Books,* Vol. 21, No. 2 (February 21, 1974), F. 22.

[16]D. Zwerdling, "Death for Dinner." See footnote 15 above.

[17]This figure was quoted by several witnesses at the *Hearings Before the Select Committee on Nutrition and Human Needs,* U.S. Government Printing Office, 1973.

[18]The magnitude of this problem is discussed in P. Wyden, *The Overweight: Causes, Costs and Control,* Englewood Cliffs: Prentice-Hall, 1968; National Center for Health Statistics, *Weight by Age and Height of Adults: 1960-62.* Washington: *Vital and Health Statistics,* Public Health Service Publication #1000, Series 11, #14, Government Printing Office, 1966; U.S. Public Health Service, Center for Chronic Disease Control, *Obesity and Health,* Washington: Government Printing Office, 1966.

[19]This aborted study is discussed in M. Jacobson, *Nutrition Scoreboard: Your Guide to Better Eating,* Center for Science in the Public Interest.

[20]M.S. Hathaway and E. D. Foard, *Heights and Weights for Adults in the United States,* Washington: Home Economics Research Report 10, Agricultural Research Service, U.S. Department of Agriculture, Government Printing Office, 1960.

[21]This is discussed by D. Zwerdling. See footnote 15.

[22]*Hearings Before the Select Committee on Nutrition and Human Needs, Parts 3 and 4,* "T.V. Advertising of Food to Children," March 5, 1973 and March 6, 1973.

[23]Dr. John Udkin, Department of Nutrition, Queen Elizabeth College, London University. See p. 225, Senate Hearings, footnote 22 above.

[24]D. Zwerdling, "Death for Dinner. "See footnote 15 above.

[25]This is well argued in F. Piven and R. A. Cloward, *Regulating the Poor: The Functions of Social Welfare,* New York: Vintage, 1971; L. Goodwin, Do the Poor Want to Work?, Washington: Brookings, 1972; H. J. Gans, "The Positive Functions of Poverty," *American Journal of Sociology,* Vol. 78, No. 2 (September, 1972), pp. 275-289; R. P. Roby (Ed.), *The Poverty Establishment,* New Jersey: Prentice-Hall, 1974.

[26]See, for example, Jules Henry, "American Schoolrooms: Learning the Nightmare," *Columbia University Forum,* (Spring, 1963), pp. 24-30. See also the paper by F. Howe and P. Lanter, "How the School System is Rigged for Failure," *New York Review of Books,* (June 18, 1970),

[27]With regard to penology, for example, see the critical work of R. Quinney in *Criminal Justice in America,* Boston: Little Brown, 1974, and *Critique of Legal Order,* Boston: Little Brown, 1974.

[28]See, for example, S. M. Sales, "Organizational Role as a Risk Factor in Coronary Disease," *Administrative Science Quarterly,* Vol. 14, No. 3 (September, 1969), pp. 325-336. The literature in this particular area is enormous. For several good reviews, see L.E. Hinkle, "Some Social and Biological Correlates of Coronary Heart Disease," *Social Science and Medicine,* Vol. 1 (1967), pp. 129-139; F. H. Epstein, "The Epidemiology of Coronary Heart Disease: A Review," *Journal of Chronic Diseases,* 18 (August, 1965), pp. 735-774.

[29]Some interesting ideas in this regard are in E. Nuehring and G. E. Markle, "Nicotine and Norms: The Reemergence of a Deviant Behavior" *Social Problems,* Vol. 21, No. 4 (April, 1974), pp. 513-526. Also, J.R. Gusfield, *Symbolic Crusade: Status Politics and the American Temperance Movement,* Urbana, Illinois: University of Illinois Press, 1963.

[30]For a study of the ways in which physicians, clergymen, the police, welfare officers, psychiatrists and social workers act as agents of social control, see E. Cumming, *Systems of Social Regulation,* New York: Atherton Press, 1968,

[31]R. H. Rosenman and,M. Friedman, "The Role of a Specific Overt Behavior Pattern in the Occurrence of Ischemic Heart Disease," *Cardiologia Practica,* 13 (1962), pp. 42-53; M. Friedman and R. H. Rosenman, *Type A Behavior and Your Heart,* Knopf, 1973. Also, S. J. Zyzanski and C. D. Jenkins, "Basic Dimensions Within the Coronary-Prone Behavior Pattern," *Journal of Chronic Diseases,* 22 (1970), pp. 781-795. There are, of course, many other illnesses which have also been related in one way or another to certain personality characteristics. Having found this new turf, behavioral scientists will most likely continue to play it for everything it is worth and then, in the interests of their own survival, will "discover" that something else indeed accounts for what they were trying to explain and will eventually move off there to find renewed fame and fortune. Furthermore, serious methodological doubts have been raised concerning the studies of the relationship between personality and at-risk behavior. See, in this regard, G. M. Hochbaum, "A Critique of Psychological Research on

Smoking," paper presented to the American Psychological Association, Los Angeles, 1964. Also B. Lebovits and A. Ostfeld, "Smoking and Personality: A Methodologic Analysis," *Journal of Chronic Diseases* (1971).

[32]M. Friedman and R.H. Rosenman. See footnote 31.

[33]In the *New York Times* of Sunday, May 26, 1974, there were job advertisements seeking "aggressive self-starters," "people who stand real challenges," "those who like to compete," "career oriented specialists," "those with a spark of determination to someday run their own show," "people with the success drive," and "take-charge individuals."

[34]Aspects of this process are discussed in J. B. McKinlay, "On the Professional Regulation of Change," in *The Professions and Social Change* P. Halmos (Ed.), Keele: Sociological Review Monograph, No. 20, 1973, and in "Clients and Organizations," chapter in J.B. McKinlay Ed. *Processing People—Studies in Organizational Behavior*; London: Holt, Rinehart, and Winston, 1974.

[35]There have been a number of reports recently concerning this activity. Questions have arisen about the conduct of major oil corporations during the so-called "energy crisis." See footnote 10. Equally questionable may be the public-spirited advertisements sponsored by various professional organizations which, while claiming to be solely in the interests of the public, actually serve to enhance business in various ways. Furthermore, by granting special status to activities of professional groups, government agencies and large corporations may effectively gag them through some expectation of reciprocity. For example, most health groups, notably the American Cancer Society, did not support the F.C.C.'s action against smoking commercials because they were fearful of alienating the networks from whom they receive free announcements for their fund drives. Both the American Cancer Society and the American Heart Association have been criticized for their reluctance to engage in direct organizational conflict with pro-cigarette forces, particularly before the alliance between the television broadcasters and the tobacco industry broke down. Rather, they have directed their efforts to the downstream reform of the smoker. See E. Nuehring and G. E. Markle, cited in footnote 29.

[36]E. Nuehring and G. E. Markle, cited in footnote 29.

[37]The ways in which large-scale organizations engineer and disseminate these myths concerning their manifest activities, while avoiding any mention of their underlying latent activities, are discussed in more detail in the two references cited in footnote 34 above.

[38]For a popularly written and effective treatment of the relationship between giant corporations and food production and consumption, see W. Robbins, *The American Food Scandal,* New York: William Morrow and Co., 1974.