Disease Epidemiology

A Statement on Current Priorities for Research and Community Needs by the Council on Epidemiology American Heart Association

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INTRODUCTION

FILE

Epidemiology being, as it is, a discipline bridging research and its applications in the community, must be deeply concerned with scientific knowledge and its social consequences. In the area of coronary heart disease, spectacular advances have been made during the past one or two decades, both in the acquisition of solid facts and in laying the foundations for preventive trials and community action. With regard to other forms of heart disease, with the partial exception of rheumatic fever and its sequellae which present a special problem, much remains to be done.

In view of the rapid progress in coronary heart disease epidemiology, there is an awareness, both intuitive and reasoned, that this field is now at the crossroads. The Council on Epidemiology is, therefore, faced with a new and special responsibility. It is true that the Council plays an important role in bringing active investigators together for worthwhile and productive interchanges and serves an increasing role in the affairs of the American Heart Association. Yet, these efforts, as is in the nature of committees and parent organizations, tend to be advisory and passive rather than active. This is as it had to be but cannot be an end in itself. Conferences, talks and discussions serve no useful purpose unless they lead to action toward further needed research, and its applications. The Executive Committee of the Council on Epidemiology feels responsible to provide a position statement on pressing problems so as to initiate a train of thought and Time and resources are short and it would be tragic to waste either by work yielding merely repetitive results, - when there is a need for new or more detailed knowledge and the application of what has already been learned.

After a period of rapid advance, a certain sense of exhaustion is to be expected. It is all the more surprising and gratifying that the reverse appears to be true in our field, to judge from the increasing number of active workers, the large amount of good and substantial work and the firm place which chronic disease epidemiology has established for itself. Nevertheless, beyond the accepted necessity to conduct preventive trials and to detect and protect high-risk groups, there is a distinct feeling of uncertainty about the nature and priorities of research into unexplored territories. This statement aims at delineating current and long-range research and community needs.

2. RESEARCH NEEDS

2.1. Categorical Areas

2.1.1. Coronary Heart Disease

Risk Factors

The identification of potent risk factors which predict or are associated with coronary disease represents the major, single achievement of epidemiological research in this area. While the predictive power, sensitivity and specificity of risk factor tests, especially in terms of multiple factors, are considerable, it would be desirable to discover "tests" which would concentrate a larger number of subsequent cases among a smaller proportion of the total population at risk. New methods of multivariate hold promise in this regard. The development of test procedures which are more closely linked with underlying etiological mechanisms would be another way to enhance predictability. Examples would be tests for more specific lipid-subfractions and, perhaps, a search for co-factors which facilitate their accumulation in arterial tissue, or the measurement of the factor which causes both hyperglycemia and atheroma formation rather than measuring hyperglycemia itself which is presumably no more than a rather coarse indicator of the underlying abnormality which

is responsible for the pathological changes. Carbohydrate-lipid inter-relationships urgently need further study.

No multiple predictive risk functions have incorporated some measure of physical activity or social and psychological stress indices. Nor have any measures related to blood clotting or thrombus formation ever been included among other predictive factors.

These are some priorities for research in order to identify high-risk individuals in a population which includes only a distressingly small proportion of persons who can be considered at low risk. In such populations, sight must never be lost of the fact that effective prevention and disease control cannot depend on identification of high-risk individuals and their treatment as individuals alone but use must be made of community-wide approaches toward public health measures.

Causes and Mechanisms

Proof that a risk factor is, in fact, causative may either be direct or circumstantial. Direct proof requires a controlled trial, to be discussed subsequently. Indirect proof ("circumstantial evidence") comes from a variety of sources, - from so-called "descriptive" epidemiological studies, pathological observations and experimental studies in animals. Knowledge of the mechanism by which a risk factor leads to functional and structural changes provides a "half-way house" between direct and indirect proof. There is a need for all of these approaches and, with reference to coronary disease, a considerable number remain to be used with reference to a number of risk factors.

This statement does not intend or presume to be a guideline to specific, original research projects; examples of needed research will readily come to the mind of investigators. The thought is advanced, however,

within the hospital on selected groups must be adapted for use in field studies among persons more representative of patients or potential patients in the general population. It is sometimes said that epidemiological studies cannot contribute to the knowledge of mechanisms; this is only true if such clinical-epidemiological investigations are considered beyond the reach of the epidemiologist. If epidemiology is to be one of the bridges between clinical and community medicine and aims at remaining a biological discipline, this interest in mechanisms must be developed and not delegated entirely to those doing so-called "fundamental" research in the clinical and experimental departments. In order to make such studies feasible and manageable in terms of numbers, carefully chosen, stratified sub-samples may serve these purposes in epidemiological research which is as fundamental in its own way as any other branch of medical investigation.

In the search for causes, a profoundly important problem relates to the threshold beyond which an influence such as diet, physical activity or smoking has to be modified in order to affect disease incidence or an intermediate endpoint. Observational studies in different cultural settings are sometimes helpful as a first approach. Consideration of international research is beyond the scope of this statement but such groups may be found even in a country which is as homogenous as the United States. For definitive answers, the determination of "thresholds" must be built into clinical trials.

Environment and Heredity

It is axiomatic that modification of detrimental environmental habits is especially important to those who are genetically disposed. The identification of such persons is, therefore, important. Epidemiological studies have been mostly concerned with individuals rather than the

individual within his family where both environmental and genetic factors are shared in common. To speak of "community medicine" or "family medicine" in epidemiological work while viewing each person as an individual isolate is a contradiction in terms. Environmental-genetic interrelationships may be studied not only within families as such but families themselves may be arranged into broader social groupings which share common habits.

Another powerful way to study the influence of the environment is concerned with observations among social groups in a state of transition. Prime examples are people emerging from a primitive mode of life into new cultural patterns. Even within a "developed" country like the United States, social and geographic mobility represent social states of transition, with biological and psychological consequences which are only now beginning to be studied. More studies of this kind are much needed.

Preventive Trials

The need to give highest priority to preventive trials is now so generally recognized by the scientific community and the granting agencies that no emphasis or defense should be required. The only questions relate to the ways in which such trials should be done. For the present purpose, these questions are merely enumerated in terms of alternatives:

Primary versus secondary prevention trials?

Intervention on single versus multiple factors?

Randomization of high risk groups only versus all persons in group?

Use of drugs versus modification of living habits?

Choice of population, - general versus special groups?

Choice of statistical techniques?

Needless to say, the answers to these questions are not mutually exclusive. Preventive trials have not only the obvious practical im-

plications but serve more directly than any other single method to prove cause—and-effect relationships between risk factors and disease. Thus, knowledge of underlying mechanisms is not necessarily essential in order to institute effective preventive measures. It is, however, essential to be certain that a regime does not do any harm and, this is another major reason for carrying out controlled trials.

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Myocardial Factors

Research to date has centered on atherosclerosis as the underlying condition causing coronary heart disease. Yet, it has always been realized that myocardial factors may determine whether a person with a given amount of atherosclerosis will develop an infarct or die suddenly ("electrical death"). Very little is known about risk factors which predispose specifically to such events in the myocardium or the mechanisms that may be involved. Catecholamines are likely to enter into this chain of events but there are probably several other influences. There is an urgent need for research into these myocardial factors on an epidemiological and clinical-epidemiological level. Such work is an obvious counterpart to the Acute Myocardial Infarction Program of the National Heart Institute. To break into this field will not be easy but it must be done since it will be a long time until truly primary prevention of atherosclerosis early in life will become a reality and exert its impact on the appearance of manifest disease in middle-age and beyond.

Co-existent Atherosclerosis in Different Arterial Beds

The term "generalized arteriosclerosis" has fallen into disrepute.

All the same, there is suggestive evidence that atherosclerotic disease often co-exists in the coronary, peripheral and cerebral arteries in various combinations. To what extent aortic atherosclerosis may be an exception is not clear. These matters need epidemiological study, both

from the point of view of prevention and the use of disease in one area as an index of risk for disease in another. Obviously, such studies require the simultaneous collection of data on disease manifestations in different arteries among the same people in properly selected population groups.

2.1.2. Hypertension

There are now few conditions which can be as well controlled as hypertension and there is suggestive evidence that the decreasing frequency of deaths from hypertensive heart disease and stroke is, in fact, related to more effective therapy. Yet, with few exceptions, there has been no major effort to initiate definitive, large-scale preventive trials and the epidemiological search for causes of hypertension has been far less concentrated and intensive than the corresponding effort in the area of coronary heart disease.

The research needs in this area have been well summarized (Stamler and others: The Epidemiology of Hypertension - Research Challenges and Perspectives; in: "The Epidemiology of Hypertension;" J. Stamler, R. Stamler, and T. N. Pullman, eds.; 1967, New York, Grune and Stratton, pp. 457-462). There is no doubt that there is a genetic susceptibility toward hypertension but next to nothing is known about environmental factors which unmask this predisposition. The two most obvious, weight gain and salt intake, have not been studied intensively from this point of view, even though there are important leads that they are important. Moreover, many hypertensives are undetected or untreated and there is, indeed, no information on the level of blood pressure above which treatment is indicated in terms of preventing the diseases associated with hypertension. The need for action toward preventive programs, controlled trials and research into causes is implied in these statements on the present position.

2.1.3. Cerebrovascular Disease

It is estimated that 500,000 non-fatal strokes occur in the United States per year and 250,000 to 300,000 fatal attacks during the same period. Yet, apart

from hypertension, little is known about the precursors of stroke, the distribution of these events in the population and reasons for regional and other differences in frequency which have been reported. Further work must be fostered. Little is known about pre-existing coronary heart disease as a risk factor toward stroke. There are no full-scale efforts toward coordinated, cooperative prevention trials. Strokes are but one part of the broader aspect of "chronic brain syndrome" which needs better definition.

Cerebrovascular disease provides a good example of the problems involved in the organization of research and its applications. The traditional method of waiting for the initiative to come from individual research workers and to provide support for a variety of independent projects may not be the most effective way to conduct studies which require large numbers of subjects, and, unlike many laboratory and clinical investigations, proceed according to a predetermined plan rather than requiring imaginative re-thinking and change of protocol along the way. There are now a fair number of precedents where projects of this type have been brought into being through the initiative of the National Advisory Heart Council and carried out by collaborative working groups. For cerebrovascular disease, a similar approach may be needed. Since a substantial amount of epidemiological work will from now on depend on support through the Regional Medical Programs, it is of foremost importance that guidance along these lines be given by those responsible for their administration.

2.1.4. Interactions Between Cardiovascular and Chronic Respiratory Disease

There are now a good number of epidemiological studies in which data on both cardiovascular and chronic respiratory disease have been collected.

Nevertheless, there is still no answer to the simple question how often the two conditions co-exist on several levels of severity and which of the two usually comes first. What are common etiological factors besides smoking?

Indeed, how often do smokers show involvement of both systems?

The questions which have been raised are examples of instances where existing data have not been fully utilized. These instances do not relate by any means to this particular disease complex alone.

2.2. Methods

It may sometimes be thought that chronic disease epidemiologists are unduly preoccupied with methodological problems. In fact, the very reverse is true. Whatever limitations exist to the full use of epidemiological approaches are largely due to the lack of adequate methods for diagnosing disease as it proceeds from the pre-clinical to the manifest stage and for measuring a number of risk or causative factors. The history of investigative medicine is replete with examples for the truism that the availability of a new method may open up entirely new fields. At the risk of repeating what has been obvious to all workers in cardiovascular disease epidemiology for a long time, several particular methodological needs may be enumerated.

Some of the complicated methods used in clinical and laboratory research must be adapted for use in short-term studies so that members of the general population could be expected to volunteer as participants. For instance, could the coincidence counter for coronary blood flow measurement be made usable in epidemiological studies? Are there more simple ways of detecting primary aldosteronism in hypertensives? Is it hopeless to think that coronary artery lesions might be identified by a method short of coronary angiography? How often are angiographically demonstrated lesions accompanied by calcifications which are more easily measured? How can sympathetic-parasympathetic balance be measured? What are the biochemical and physiological factors which, given the same amount of coronary atherosclerosis, make one person more susceptible to myocardial lesions than another? Has all the useful information been extracted from electrocardiograms? These and many others are idle questions only if one is convinced that there is no answer to them.

Have epidemiologists really tried to enlist the help of their colleagues in other parts of their institutions in developing these needed methods? Without such methodological advances, chronic disease epidemiology will lose touch with the mainstream of medical research. Given new methods, on the other hand, will enable epidemiologists to make observations more closely connected with etiological mechanisms and thus permit better inferences on causality. Obviously, detailed studies of this kind can only be done on limited numbers of subjects. Strangely enough, there has been a tendency in population studies to do "everything on everybody." Certain specialized investigations using more complex methods may be done equally well in carefully selected subsamples of the total group.

The study of environmental factors is part of the very essence of epidemiology. Yet, there are no good ways of measuring even such basic variables as diet or physical activity. A worker wishing to study the varieties of social and psychological adjustments and maladaptations is confronted with an array of methods, with little guidance on the best choices for given purposes. The major reason for these deficiencies is, of course, the difficult nature of the problem. Yet, especially with regard to the area of psycho-social assessments, one cannot help but feel that there is a lack of some sense of urgency: methods are needed which may be short of being perfect but would permit at least broad inferences to serve as a start to characterize sub-groups for more intensive study. Time is necessary to develop good methods but enough is known by now in the fields of sociology and psychology to make one wonder if further waiting and further long discussion without resultant action is a luxury which can no longer be afforded. The time seems to be now for a small number of experts to get together and make decisions on recommended methods for research in this field. The manual on general epidemiological methods prepared by Blackburn and Rose for the World Health Organization is the prototype of the kind of guidance research workers

need and want in the area of the psycho-social sciences. By contrast, in regard to the physical environment, especially with reference to water hardness, recommendations on methods for study would seem premature before further probing is done first.

Finally, there is a need for the development of new statistical methods. The traditional methods of research design are often not applicable in epidemiological situations where strict randomization is not feasible. It has been a truism in atherosclerosis research for 15 or 20 years that this is a disease with multiple causes. Yet, only very recently has there been a face-to-face confrontation with the obvious consequence of this awareness that multivariate techniques are needed to cope with the analysis of data where the end-points of clinical or pre-clinical disease are linked with many and often interacting variables ("risk factors"). It is true that the time-honored method of multiple cross-classification remains a first-line approach and that the superiority of sophisticated multivariate techniques remains to be proven. Nevertheless, no one would seriously question the need for new statistical methods. This need includes not only multivariate techniques but problems relating to research design, significance testing and the drawing of inferences.

2.3. Facilities

It is taken for granted that some types of epidemiological research require surveillance of entire communities in terms of samples or the whole population. One objection to such studies has been their great expense in terms of manpower and financial expenditure. However, a recent detailed survey of all the 3,500 adults in an Australian town, carried out mostly over a 2-week period, demonstrates the potential economy of such operations which could be easily extended longitudinally from the initial prevalence study. A reassessment of the prerequisites and requirements for the most efficient and economical conduct of prospective studies is needed.

So far, epidemiological research has been mostly separated from the systems for delivering medical care. Yet, medical care is one of the. variables in the ecological picture of health and disease. Moreover, the A SECTION AND SECTION ASSESSMENT systematic collection of epidemiological data in the course of providing medical care could be, for some purposes, the ideal way to carry out epidemiological investigations. Prepaid medical care plans, areas around health centers and, of course, large companies may provide the setting for such combined operations. Some of the studies in Britain under the auspices of the Royal College of General Practitioners are excellent examples of this approach. Cardiovascular epidemiologists must not forget that this kind of study was, in fact, the one proposed at St. Andrews in Scotland by that great cardiologist and epidemiological visionary, Sir James Mackenzie! If the Regional Medical Programs are to include, as they must, an epidemiological component, the separation between preventive and curative care, research and its applications becomes of necessity artifical. If the Medical Schools are to teach, as they must, community medicine, students must likewise learn the artificiality and undesirability of these traditional lines of separation.

Thought should be given to the establishment of epidemiological intelligence surveillance in the chronic diseases. How else can the effect of control measures be monitored continuously? A part of this surveillance are registries for heart attacks in defined areas. Such coronary heart disease registers are now being set up in Europe under the aegis of the World Health Organization; no corresponding plans in the United States are under serious discussion. How else can the spectrum of manifestations from sudden death to myocardial infarction with long-term survival be assessed, especially in relation to the coronary care units which are being set up all over the country? Obviously, such registers would be in the nature of pilot operations in selected locations, pending the

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advent of record linkage systems spanning the nation.

COMMUNITY NEEDS

3.1. Settings for Community Programs

The traditional setting for research and service has been the teaching hospital. However, the innovations demanded by the present health scene cannot all be initiated in the same setting. It has been estimated that fewer than 0.1% of adults at risk for disease in New York City, North Carolina, and the United Kingdom are annually referred to teaching hospitals (Greenberg et al.). There is little doubt that the same immense bias in teaching hospital patients is true in the United States generally. Moreover, hospitals as a rule are structured for treatment after disease and cannot concern themselves with the great reservoir of undetected disease and individuals at high risk for disease in the community.

The Council on Epidemiology recognizes the great contribution of the teaching hospitals both past and present, and it is well aware of their potential contribution. But they alone are grossly inadequate to the imperative solutions of the major cardiovascular disease problems of the United States. The early detection and effective treatment of previously unknown hypertension, the identification and management of those at high risk for coronary heart disease, the identification of previously unknown rheumatic and congenital heart disease, the development and improvement of large scale risk mitigation programs for stroke and coronary heart disease, all these have not been effectively pursued by hospitals.

Community health problems are best studied and treated in community based facilities. The Council on Epidemiology urges that community health agencies such as health departments, neighborhood health centers, and health components of Model Cities Programs become new sites for study and treatment of the major cardiovascular diseases.

No one questions the large expenditure of Medical Schools to render service in teaching hospitals. The expenditure and the service are justified on the grounds that they support research and teaching. Now the need is urgent for community based research and teaching, and the teaching hospital cannot be the agency for these. Medical Schools are going to have to spend money for community services in cardiovascular and other diseases to permit the new kind of community based research and teaching to be carried out.

These considerations are linked with the remarks already made in connection with the facilities for epidemiological research (Section 2.3.). As community medicine will become better defined, the complementary demands of service, teaching and research can be integrated more effectively to serve the needs on all levels of prevention and care.

3.2. Programs for Risk Factor Screening and Preventive Treatment

There seems to be now a consensus of opinion, at least in the United States, that persons with elevated risk factor levels or characteristics should not be left to go untreated. The corollary is that such persons must be detected. Clearly, high-risk individuals detected in the course of screening programs must be assured of proper advice and follow-up; otherwise, it would have been better for them to remain undetected and free of unrelieved anxiety. In a population such as one finds in the United States, the majority of middle-aged persons are at increased risk and screening programs mostly serve to detect the nature of the increased risk rather than its presence. Under the circumstances, it must be apparent that these programs represent undertakings of formidable magnitude on a national level, particularly if one takes into account the need for continuing observation to assure correction of the abnormality and avoidance of relapses. Beyond this, there is further recognition of the need to evaluate the effectiveness of screening programs. Unfortunately, there has been more lip-service to the need for the detection of high-risk individuals than a frank confrontation with the problems of implementing screening programs on a national level. Federal, state and voluntary health agencies should set up appropriate working committees to draw up blue-prints for these activities, with due consideration of the costs in terms of manpower and funds.

Closely connected with the implications in screening are the problems of motivation. There is a gross lack of knowledge concerning the reasons why people persist in continuing habits which they know, or should know, to be detrimental to their health. There is an equally gross lack of knowledge concerning approaches to motivate people to change their ways. Instituting screening programs serves no purpose in the face of great odds that those identified as being at preferential risk will not usually adhere to the regime prescribed for them.

Lastly, sight must never be lost of the fact that prevention must start early in life. Screening for risk factors well before middle-age is a problem which has never been squarely faced; in fact, there is in-adequate epidemiological information at this time concerning screening levels at younger ages. Research and action into the problems of atherosclerosis in adolescence and childhood is a foremost priority.

In view of the problems inherent in population-wide screening and the fact that such a large proportion of the population is at increased risk, it must be obvious that screening programs cannot replace action aimed at modifying certain detrimental living habits in the population at large. There has been a tendency to discuss such problems facing the nation as a whole at National Conferences involving a great number of participants. Conferences of this kind are useful in airing and defining issues but are unlikely to lead directly to thoughtful and forceful action. The matters under consideration are more effectively dealt with by small groups of people who are not only highly expert but carry

enough influence to see to it that their recommendations are implemented.
"Social Engineering"

The realization of the aims of community medicine requires a profound involvement with the total fabric of social problems. These are matters beyond the reach of the medical profession alone. This is not questioned by anyone; yet, health agencies have, on the whole, failed to integrate the medical and social sciences to full advantage. The achievement of these symbiotic relationships is, indeed, difficult. In some ways, medical knowledge is no doubt more advanced than the know-how regarding its application. As a result, and for some other reasons, physicians and social scientists find it difficult sometimes to initiate collaborative efforts. Merely having social scientists "on the staff" is not enough; indeed, this may do more harm than good unless it leads to effective working relationships. Engineers design, build and re-build machinery, get it going and keep it working. Hence, "social engineering" is a good term emphasizing action beyond discussion.

4. THE ROLE OF THE HEALTH AGENCIES

In recent years, the attitude toward the role of public and private health agencies has quite dramatically changed. Their responsibility toward the support of research and specialized services was never questioned but a broad involvement on their part in the organization and delivery of medical care was viewed with suspicion. The establishment of a functioning system of community medicine certainly demands active participation of all of these agencies on many levels. The question is not anymore whether they should be involved but how each could make the best contribution to the total problem.

The current reorganization within the U. S. Public Health Service and the National Institutes of Health signifies a profound awareness of the health needs and priorities of our time. Nevertheless, as epidemiologists responsible for some of the key aspects of research and its applications in

the area of the most major chronic disease, we are deeply concerned that our discipline is not clearly recognized and specifically identified as such within the new organizational structures that are being created. It may be thought that this is, in a sense, a triumph for epidemiology which has become taken for granted and is now permeating, as it were, tacit thinking and action on many levels of medicine and public health. Unfortunately, while this is true to some extent this situation does not take care of the urgent needs for the financial support of epidemiological work across its whole spectrum, stretching from research into causative factors, to research into and as part of community programs and to preventive trials. It is becoming more not less difficult for epidemiologists to obtain adequate support for their work. No more than 4 percent of the National Heart Institute budget are spent for epidemiology. A large part of the reason relates to the fact that there is no specific allocation of funds for epidemiological research and its applications. As a result, requests have to compete with others less costly, it being in the nature of epidemiological studies to be usually expensive, against an argument which is not too uncommon that the limited funds could be used to a greater advantage to support a greater number of clinical and laboratory studies which would bear more immediate and fundamental results. While awards are made ostensibly on the basis of the merit of the project rather than its cost, the factor of expense is bound to enter into the considerations at some level of decision, quite apart from the prejudice inherent in the attitude described above. It is suggested that the major granting agencies should have standing advisory committees which would assess and monitor epidemiological needs in relation to the extent to which they are being met and help in designating the most appropriate sources of support. Epidemiologists should not claim special privileges but, at least during this period of transition, attention must be given to the mechanisms required to meet their needs. Conversely, epidemiologists should take stock and decide on their own priorities, as discussed in preceding sections.

The training of professional personnel is of obvious importance and has been stressed many times; the matter is recapitulated for completeness and emphasis. The research and community programs which have been given priority cannot be adequately staffed by presently available personnel. This is true not only with regard to physicians and other health workers and scientists with advanced training but, most particularly, for paramedical personnel. Community and epidemiological research needs simply cannot be met without a large body of solidly rather than highly trained workers. A good number of these may come from Community Colleges which are gradually coming into increasing being, now that we come to realize that a fetish has been made of "College Education" so that larger and larger numbers of poorly qualified students are admitted to Institutions which must lower their academic standards and dilute their resources to accommodate them.

5. THE ROLE OF THE COUNCIL ON EPIDEMIOLOGY WITHIN THE AMERICAN HEART ASSOCIATION

The need for the Scientific Councils of the A.H.A. to communicate and work together and to serve as a scientific resource on the regional level has been stressed repeatedly in recent times. Our Council has set a good example. We have good liaison with the Council on Atherosclerosis. We have established contact with the Council on Rheumatic Fever and Congenital Heart Disease through their Subcommittee on Childhood Atherosclerosis. We have had joint sessions with other Councils at the annual meetings. We have also set up working relationships with the International Society of Cardiology. However, much remains to be done. We cannot be merely the epidemiological arms of the Council on Atherosclerosis but must concern ourselves with the epidemiological aspects of all forms of cardiovascular disease or, perhaps, to borrow a term from mortality statistics, cardiovascular-renal diseases, meant to include also cerebrovascular disease. In doing so, we should not trespass on the territory of other Councils unless there is a functional reason. Also, we should not engage in these contacts merely for the purpose of spending yet

more time in committee meetings for the purpose of "discourse", to use a word which has become so fashionable. We must give much and deliberate thought to these matters.

Also, we should not only be a "talking" but, in addition, a working Council. Our Committee on Criteria and Methods, through its survey which served a useful purpose and its "Pooling Project" which will certainly make its mark, has established a precedent for active research under the aegis of the Council. We should give much and deliberate thought to other such activities. These need not necessarily be on the level of research but might well involve some of our members in community programs where our expertise and willingness may give forceful aid to the Council Coordinating Committee for Community Program. In this way, we may start to serve as a resource on the regional level which has been designated as a Council responsibility.

6. SUMMARY OF RECOMMENDATIONS

TO BE COMPLETED AFTER AGREEMENT ON THE STATEMENT AS A WHOLE HAS BEEN REACHED.