

CHARTING A COURSE FOR THE FUTURE: A SOCIETY AT THE INTERFACE*

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At the outset, I want to express my gratitude to the members of the Society for electing me to this position. I am keenly aware that serving as President of the Society is a trust that few of us are privileged to receive. I deeply appreciate that honor, and I sincerely hope that my efforts during the past year have advanced the interests of all members of the Society. Second, I would like to acknowledge the personal support I have received from so many of you. That support was evident from the time I first became Chair of the Scientific Program Committee in 1984, and has continued through the present time. Third, I would like to explain why I did not begin to prepare this address by reviewing the addresses of previous Presidents. The reason most relevant to our discussion today is that the self-examination the Society has undergone this year (with discussion of strategic planning at the Council Retreat and at this meeting) is fundamentally different from the patterns of previous years. The second reason is that the interface between the health problems of sub-Saharan Africa and countries such as the United States and Canada dominated my thinking in August when I began to prepare this address because I was working with Dr. Ogobara Doumbo in Mali. Rather than the reflective opportunities afforded by the Eel Pond at Woods Hole, we had the Sahel countryside in which to grapple with these issues, sitting by the side of the road because the oil filter had fallen off our vehicle and the engine had overheated.

WHAT IS THE PURPOSE OF A PRESIDENTIAL ADDRESS?

Why do we and many other societies set aside valuable time for a Presidential Address in a crowded scientific program? Surely the reason is not to present recent laboratory data. Presidents are elected more than two years before the meet-

ing at which they address the membership, and many of our most distinguished presidents have been field workers or epidemiologists, rather than laboratory scientists (Table 1). My response to this question is similar to the responses of other recent presidents.¹⁻¹⁰ The purpose of this presidential address is to examine broad issues that cut across the many disciplines involved in tropical medicine and hygiene.

PERSPECTIVE AT THE INTERFACE: THE MAGNITUDE OF THE TASK VERSUS THE AVAILABLE RESOURCES

The next question is what perspectives should be brought to bear on tropical medicine and hygiene by a Society whose members are primarily from developed countries such as the United States and Canada? Our field demands an understanding of both the developing and developed worlds. Thus one of our major tasks is to understand the complex interactions at this interface (Figure 1). If this response is correct, and I believe it is, the task before us as a Society is to relate the needs and opportunities of the developing world to the human and technical resources of the developed world. As you are well aware, this is not a simple task. First, the magnitude of these health problems is enormous. Second, the resources available to address these problems are constrained increasingly by worldwide recession and a limited domestic commitment to international affairs. Third, the nature of these problems changes constantly.

SELECTIVE INTERACTION AT THE INTERFACE: IMPLEMENTATION, AND APPLIED (OPERATIONAL) AND BASIC RESEARCH STRATEGIES

Viewed as simply as possible, interactions at the interface pose two major challenges. The first is to identify important problems for which solutions are available, and devise strategies to implement those solutions. This topic was reviewed eloquently by Don Hopkins in the Soper Lecture

* Presidential Address given before the 41st Annual Meeting of the American Society of Tropical Medicine and Hygiene, Seattle, Washington, November 17, 1992.

TABLE 1
What is the purpose of a presidential address?

1) Presentation of recent laboratory data Two year delay after election Potentially limited interest Inadequate opportunity for discussion
2) Review of an important topic or discipline Filariasis—Paul Weinstein Nature of Infectious Disease—Jack Frenkel Discovery and Disease Control—Lou Miller
3) Policy issues in tropical medicine and hygiene Disease Control—Phil Russell and Joe Cook Professional Management—Karl Johnson Legislative Initiative—John David Scientific Dialogue—Franz von Lichtenberg Leadership, Continuity—Scott Halstead

last year during his discussion of disease eradication as a public health strategy.¹¹ The second challenge is research, which can be viewed as the study of problems for which solutions are not yet available. Members of this Society have made many important contributions to this task through both basic and applied (field) research. As evidenced by this meeting, by publications in the *Journal*, and by the Society mission and goals statement,¹² this Society is committed to both basic and applied (operational) research, and to the application of that research to improve the quality and duration of life in the developing world.^{4, 5, 12, 13}

SELECTIVE INTERACTION AT THE INTERFACE: OPPORTUNITIES FOR THE ASTMH AS A SOCIETY

Despite their importance, implementation and research strategies are fundamentally individual choices. They are worked on by individual laboratories and investigators, not by societies or the field as a whole. What then, are the ways in which a Society such as this can function effectively at the interface? The Society as a whole has advantages that none of us has individually. The Society can, and should, speak on behalf of the entire field, to other scientists, to funding agencies, to legislators, and to the public. In this address, I will examine ways in which the Society could be more effective, and five specific areas in which the Society should consider becoming more active. However, before the Society can develop long-term plans consistent with the importance of these issues and its resources, it must define its own priorities. It must also examine

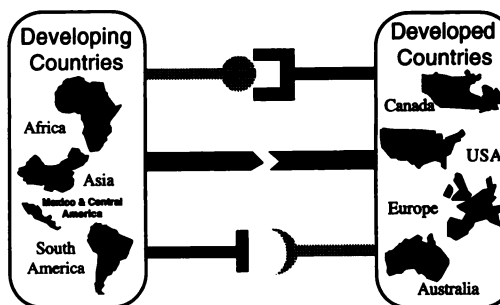


FIGURE 1. Interface between developing and developed countries. Needs of developing countries are occasionally well-matched with the available resources (solid pencil shape and receptor in the center of the diagram). Examples of this type of interaction include effective vaccines such as those for smallpox, polio and tetanus, which have been implemented successfully worldwide. More frequently, an effective response is available but not matched to the need (ball at the end of a stick and a receptor that are not lined up with one another). Examples of this type of interaction include diseases for which the effective vaccines and drugs are too expensive for use in developing countries, such as measles vaccine and drugs for chloroquine-resistant malaria. Finally, there are a number of diseases for which there are no effective vaccines or drugs (represented by a rectangle on the left side of the diagram and a crescent on the right side). Examples include infections with human immunodeficiency virus and malaria, for which there are no effective vaccines and chemotherapy is unsatisfactory. These three types of interactions can be viewed as implementation, applied research, and basic research, respectively.

the ways in which the President and the Council contribute to (and at times inhibit) this process.

THE NEED FOR CONTINUITY IN STRATEGIC PLANNING

Complex issues require strategic planning and long-term commitment. If the Society is to address such issues effectively, its leadership and agenda cannot change completely each year with the passing of the gavel at the Annual Meeting. This means that Society initiatives and plans cannot depend entirely on the President. As emphasized by Scott Halstead in his presidential address last year,¹⁰ the timing of the Presidential Address at the end (rather than the beginning) of a president's term means that an agenda may be articulated for the first time literally 1–3 hours before a president leaves office. As a result, it is difficult for the Presidential Address to be an effective vehicle for change, despite the fact that many presidents have presented elegant analyses

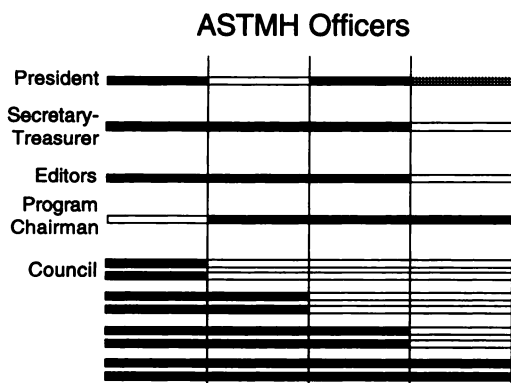


FIGURE 2. Terms of ASTMH Officers. Continuity of the Society is vested in eight Councilors, each of whom serves a four-year term, and in the Scientific Program Chairperson, *News* Editor, *Journal* Editor, and Secretary-Treasurer, each of whom serves a three-year term. Because the President serves only a one-year term, continuity of leadership and policies cannot be achieved unless planning involves more than the President, and the Society makes active use of both the President-Elect and Past-President.

and calls for action ^{4-6, 8-10}. One way to increase continuity would be to have the Past-President serve on the Council for one year after his/her term of office as President had been completed. With or without such a change (which would require constitutional revision), strategic planning can be effective if it involves the President, President-Elect, Past-President, Secretary-Treasurer, Councilors and other Officers of the Society (Figures 2 and 3). Optimally, the entire membership should have the opportunity to participate, as in our discussions at this meeting.

ROLE OF THE COUNCIL IN LONG-TERM PLANNING

The Council meets three times each year: all day Sunday and Thursday morning at the Annual Meeting, and for one additional day in the spring at a Mid-Year Meeting. Each of those meetings is long. Reports are presented by the Secretary-Treasurer, Executive Director, *Journal* Editor, Scientific Program Chairman, *News* Editor, and most committees. As a result, the Council typically has inadequate time to discuss strategic planning and Society priorities. This year, we performed three experiments with the Council to address this problem.

The first experiment was an effort to involve the Councilors directly in the Society between Council meetings. In the past 1-2 years, each

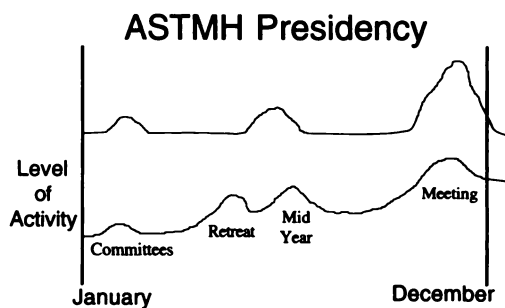


FIGURE 3. The ASTMH Presidency. In previous years (top line), the major initial activity of the President was to appoint new committee chairs at the beginning of the new year, followed by a lull until the Mid-Year Council Meeting, and a second period of intense activity before the Annual Meeting. This year (bottom line), following the Retreat in February, there has been a sustained high level of activity throughout the year. This sustained high level of activity may be necessary to accomplish the priorities resulting from discussions at the Retreat and this meeting.

Councilor has developed a special focus on a topic relevant to the Society (Table 2). The second experiment was a Retreat to discuss strategic planning and Society priorities that was held in Bethesda at the end of February 1992.¹² Because the response to that Retreat was strongly positive, the third experiment was to modify the agendas of the subsequent Mid-Year and Annual Council Meetings to provide more time for substantive discussion by devoting less time to reports that had previously been reviewed by the entire Council. This was done by delegating the initial review of committee reports to an administrative committee, which reported its findings and recommendations, but did not discuss those reports in detail unless questions were raised at the Council meeting (Table 3). One purpose of

TABLE 2
Special activities of ASTMH councilors

Education	Dickson Despommier Michele Barry
Legislative Initiative	Ruth Nussenzweig Harrison Spencer
Nominating Process	C. C. Campbell
Gorgas Fellowships	Stephanie James Steve Hoffman
Annual Meeting	Elaine Jong
International Activities	Rebeca Rico-Hesse

TABLE 3
Administrative committee

President	President-Elect
Secretary-Treasurer	Past-President
Journal Editor	Scientific Program Chair
Executive Director	

this address is to consider these experiments as potential models for the future.

TOPICS EXAMINED AT THE RETREAT AND IN THIS ADDRESS. WHAT ISSUES ARE MOST IMPORTANT, AND HOW CAN THE SOCIETY BE MOST EFFECTIVE?

Because the number of areas in which there are significant interactions between developing and developed countries is much too large for the Society to address them all, five topics were selected for discussion at the Retreat to provide an initial starting point (Table 4), and participants were divided among five working groups to address these topics. This Presidential Address examines those topics without regard to whether potential solutions are within the purview and resources of this Society. In addition, each Working Group was asked to identify a single high-priority objective that was within the resources of the Society and could be achieved within 1–2 years: an ASTMH Priority.^{12, 14, 15}

TOPIC 1: EDUCATION

Education poses important challenges in tropical medicine for both developing† and developed‡ countries. Historically, education has been the most important role of this Society; both the *Journal* and the Annual Meeting are fundamentally educational activities.¹⁴

Current Situation

Developing countries have typically inherited educational systems that were designed to meet European needs, rather than to educate African, Asian, or Latin American leaders. Thus, after independence, many developing countries have

† The terms developing and developed countries are used to provide extremes for discussion. Clearly, there is a spectrum of both developing and developed countries that has been simplified for the purposes of this discussion.

TABLE 4
Council retreat for strategic planning (February 1992)

Major topics:
1) Education
2) Domestic versus International Activities
3) Basic versus Applied Research
4) Foreign Aid in Health
5) Social and Economic Determinants of Health

had no medical school, no school of public health or graduate school, and a limited cadre of poorly-paid and overworked health professionals.

Although developed countries have extensive educational systems, the opportunities to learn about health in the developing world are often severely limited in those systems. For example, many of today's medical students in the United States actually learn *less* about tropical medicine than their predecessors, and American and Canadian physicians often travel to Britain or Europe for courses in Tropical Medicine before working overseas because such courses are not available in North America.

Present Needs

In developing countries, the most pressing educational need is to train personnel such as medical assistants and nurses to provide essential preventive and curative health services such as childhood immunization and primary care.

In developed countries, the important educational needs are to create a cadre of talented investigators and teachers, to enlist those individuals in the training of developing country professionals who can set national priorities and direct research in their own countries, and finally, to train sufficient numbers of health professionals to provide preventive and curative health care for expatriates living and traveling overseas.¹⁶

Potential Strategies

In the developing world, the training of paramedical personnel to provide essential health services is already being conducted on-site. Once locally-trained personnel are available to direct the gathering and interpretation of epidemiologic data, national priorities can be defined in-country. (Note the contrast between this proposed objective decision-making process and the in-

herently political nature of the process by which most if not all health-related decisions are made in the United States.) However, developing a cadre of professionals who can supervise the accumulation and interpretation of that information is dependent initially on overseas training and return of health professionals. As a result, the process is complicated by the high attrition rates of graduate and post-graduate trainees sent overseas, which may reach or exceed 50%.

Institutions in the developed world must find methods to reduce the attrition rate of developing country investigators training overseas. This may require a range of strategies applicable to different types of doctoral and postdoctoral projects (frequent communication and visits between home and host institutions, research projects that can be performed in-country, and schools without walls [Berkley S, personal communication]) to increase the proportion of training that can take place in-country. (Note that this strategy can succeed only when the host country provides protected time, without major teaching and/or administrative responsibilities, for young investigators when they return to their own country. Note also that programs such as the training of health managers are easier to establish on-site in developing countries than technology-intensive disciplines such as molecular and cell biology that require expensive equipment for small numbers of trainees.) Strategies to increase the retention of developing country health professionals who have returned home after training abroad include interim funding for continued collaboration with preceptors in developed countries, access to communication and literature retrieval systems, and 1–2 years of protected time with reduced teaching loads. Additional alternatives include the direct participation of developed country institutions as partners in the creation and development of professional and graduate schools in developing countries.

Priorities

The highest overall educational priority is the development of effective doctoral and postdoctoral training programs with low attrition rates overseas and high retention rates at home after developing country health professionals have completed their initial training overseas (Table 5).

The Education Working Group selected the

TABLE 5
*Topic 1: Educational priorities**

- 1) Effective graduate and post-doctoral training programs for developing country professionals with low attrition rates and high retention rates
- 2) Diploma courses leading to certification in Tropical Medicine in the US and Canada (ASTMH Priority)
- 3) Database on educational opportunities in Tropical Medicine to be published as a *Journal* supplement

* Members of the Education Working Group include Dickson Despommier (Chair), Michele Barry, Jay S. Keystone, McWilson Warren, and Peter F. Weller.

development of Diploma courses leading to certification in Clinical Tropical Medicine as the highest priority for education in the United States and Canada (ASTMH Priority).^{12, 14}

Additional potential priorities include the development of a database on educational opportunities in tropical medicine, and the publication of that information by the Society each year as a *Journal* supplement. Although the development of computerized teaching materials for tropical medicine was also considered, it was given a lower priority because it is being addressed by the Wellcome Trust under the direction of Brigett Ogilvie.

TOPIC 2: DOMESTIC VERSUS INTERNATIONAL ACTIVITIES

This topic is of interest primarily to developed country investigators who have the opportunity to work in either locale.

Current Situation

Opportunities to work in developed countries, although limited, are nevertheless more abundant than opportunities to work overseas. This is an important issue because many, perhaps all, of the people who have devoted their careers to tropical medicine had a seminal overseas experience early in their careers. Thus, there is justifiable concern that the marked reduction in the number of opportunities for young investigators to work overseas may have a profoundly negative long-term impact on the field. In addition to the NIH, the Rockefeller and Clark Foundations and the US Agency for International Development (USAID) have provided critically important support for such training during the past several decades.

TABLE 6
Topic 2: Priorities for international activities*

- 1) Support for young investigators to work overseas early in their careers, including volunteer (variable length of service) and career development opportunities
- 2) Publish a directory of overseas opportunities as an annual supplement to the *Journal* (ASTMH Priority)
- 3) Increase public and congressional support for the ICIDR program through the Legislative Initiative

* Members of the International versus Domestic Studies Working Group include Thomas P. Monath (Chair), Rebeca Rico-Hesse, Elaine Jong, John LaMontagne, Daniel G. Colley, and Andrea Meyerhoff.

Present Needs

International Opportunities for Young Investigators in Tropical Medicine. Because the funding available for this purpose has been reduced markedly, there is a need for new means of support so that young investigators interested in tropical medicine can have the opportunity to work overseas on basic science, epidemiologic, clinical, or public health projects at a formative stage in their careers.^{15, 16}

International Opportunities for Basic Research. Although there are a small number of high-quality research programs overseas, their financial base is limited. Congressional support for NIH programs such as the International Collaborations in Infectious Disease Research (ICIDR) Program is soft, and may not be sufficient to fund the next ICIDR competition.

Coordination of International Activities. Because government agencies, non-government agencies, and foundations all support international work in tropical medicine, there is a real need for coordination that has not existed previously.

Potential Strategies

Strategies that may permit young investigators to work overseas include variable lengths of service in volunteer agencies such as the Peace Corps. The Society could match requests for assistance from developing country institutions with applications from interested developed country health professionals, and should continue its negotiations on this proposal with the incoming administration in Washington. The Society should express its opinions on the training of young investigators to the governmental agen-

cies, foundations, and other agencies that support work in tropical medicine. If the Society believes that the current priorities are incorrect, it should address the people making those decisions, or identify new sources of support for young investigators. Similarly, the Society must address the Congress and the public if its members expect continued Congressional support for programs such as the ICIDRs. Not only is the number of international opportunities that exist at the present time small, but they are often unknown to the people seeking them. An important first step would be the development of some sort of database listing those opportunities.

Priorities

The highest overall priority is to obtain support for young investigators to work overseas at an early stage in their careers. These opportunities should include both volunteer service and career development programs (Table 6).

The Domestic and International Activities Working Group at the Retreat selected the development of a directory of overseas opportunities as the highest priority goal achievable within 1–2 years (ASTMH Priority).^{12, 15} The initial information necessary for that directory was compiled by Andrea Meyerhoff, and is being presented by Tom Monath at this meeting (copies are available through the Secretariat). After revision, it will be published as a yearly supplement to the *Journal*.

The Legislative Initiative should make support of international health research, as exemplified by the ICIDRs, one of its major NIH priorities in the coming year to ensure that Congress approves the next round of funding for those awards.

TOPIC 3: BASIC VERSUS APPLIED STUDIES

This topic is critical for both developed and developing country investigators, especially for those who must obtain outside support for their work.

Current Situation

Basic and applied research form a logical continuum from the laboratory bench to the field. However, neither the performance nor the funding of tropical medicine research reflect that re-

ality. Basic research can be fundamentally unrealistic if the persons performing that research are unaware of the context of the disease in the field. Conversely, field research using outdated laboratory techniques produces results that are equally unsatisfactory. Support for basic research on tropical medicine in the United States is provided by the NIH and by several foundations that also rely on peer review of requests for support. However, no comparable program is available in the United States for clinical or epidemiologic studies of tropical disease. Limited support for such studies is available through the Special Programme for Research and Training (TDR) of the World Health Organization based on a similar peer review system.

Present Needs

Orphan Drugs or Vaccines. Although there is often excellent support for basic research related to drug or vaccine development, there is virtually no support to manufacture drugs or vaccines for the developing world based on such scientific advances. Without such support, it will be difficult to produce new antiparasitic drugs or vaccines as they become realistic possibilities through advances in basic research, assuming that economic analysis suggests they will not generate a profit.

Development of Epidemiologic, Clinical, and Public Health Investigators. There is a need for career development programs similar to NIH Career Development Awards or the Burroughs-Wellcome Scholars in Molecular and Biochemical Parasitology Program for investigators committed to epidemiologic, clinical, and public health research. In the current environment, academic departments will not hire such investigators because they cannot generate salary support. With such support, a cadre of clinical and epidemiologic investigators could be developed that does not exist at the present time.

Potential Strategies

Corporate liaison must mean more than contacting a list of companies to exhibit at the Annual Meeting or advertise in the *Journal*. We have much to learn about the development of products such as drugs and vaccines from our corporate colleagues. However, we will not learn what we need to know without a fundamental

TABLE 7

*Topic 3: Priorities in basic versus applied studies**

- 1) Increased support for applied research based on peer review for scientific merit
- 2) **Strategies to manufacture orphan drugs and vaccines for the developing world (ASTMH Priority)**
- 3) Career development opportunities in the applied (epidemiologic, public health, and clinical) aspects of tropical medicine

* Members of Basic versus Applied Studies Working Group include Jonathan I. Ravdin (Chair), Donald S. Burke, Stephanie L. James, Louis H. Miller, and Ruth S. Nussenzweig.

change in our approach to industry. Tax deductions, liability protection, and other means of sheltering potential manufacturers may be necessary to encourage commercial companies to participate in the development and production of drugs or vaccines for the impoverished people of the developing world.

Foundations with long-term commitments to the developing world should be sought to support career development programs in the epidemiologic, clinical, and public health aspects of tropical medicine.

Priorities

The highest overall priority is support for applied research on tropical medicine in which funding is based on peer review for scientific merit (Table 7).

The Basic versus Applied Working Group selected the development of strategies to permit the manufacture of orphan drugs and vaccines in tropical medicine as its highest priority (ASTMH Priority). A Task Force on Relationships between Academia and Industry has been appointed to examine this issue, and will coordinate its efforts with the Society's Corporate Liaison Committee.

The third priority is to create career development opportunities for applied (operations) research to ensure that there will be a cadre of competent tropical medicine field investigators in the future.

TOPIC 4: FOREIGN AID IN HEALTH

Current Situation

Most of the support available in the United States for applied (operations) research in tropical medicine is provided by the Agency for In-

TABLE 8
*Topic 4: Priorities for foreign aid in health**

- 1) **Create a public dialog on foreign aid in health (ASTMH Priority).** Emphasize that health is essential for both development and family planning programs
- 2) Encourage foreign governments to place a priority on health in foreign aid
- 3) Increased support for multilateral programs such as the TDR program of the World Health Organization

* Members of the Foreign Aid in Health Working Group include Donald Kroghstad (Chair), John R. David, Philip K. Russell, James E. Sarn, and Karl A. Western.

ternational Development (USAID). The USAID supports critically important research on the development of a malaria vaccine, schistosomiasis, prevention of river blindness by vector control (the Onchocerciasis Control Programme), and by the distribution of ivermectin (Mectizan Donation Programme, Merck, Sharp & Dohme), the Children's Vaccine Initiative, child survival, family planning and acquired immunodeficiency syndrome programs, bilateral programs in health between the United States and foreign institutions, and multilateral organizations such as the TDR. Because the USAID is an arm of the State Department, political and strategic considerations have a significant impact on the allocation of foreign aid. As a result, a disproportionate fraction of foreign aid in health is allocated to a few strategic countries; less than 5% (2.3–4.8%) of the entire foreign aid budget is allocated to health.

Present Needs

Greater consideration must be given to the long-term health needs of developing countries, and less to their geopolitical significance. The fraction of the foreign aid budget devoted to health can, and must, be increased to a minimum of 20–30% as military expenditures decrease with the conclusion of the Cold War.

Potential Strategies

The Society has been relatively effective in its Congressional testimony on behalf of foreign aid in health. However, the Society has not yet been successful in convincing the public that health is a sound basis for American foreign policy, or in persuading foreign ministers and heads of state

to emphasize health when they visit Washington or speak with American embassies in their countries. There should be an informed public dialogue on foreign aid in health. That dialogue should emphasize the many important accomplishments of the USAID program in health. It should also be educational; it should explain that health has a universal appeal that transcends politics, and is therefore a sound long-term investment in foreign relations that does not become outdated when political power changes hands. The opportunity for this dialogue with a newly elected administration is now at hand. Health must be recognized as an essential prerequisite for both development and family planning. Unfortunately, the central role of health in development has been ignored for a number of years. The Society cannot acquiesce; it must emphasize that sick people cannot work, and therefore cannot sustain economic development. Similarly, limitation of family size is possible only when parents have a reasonable expectation that enough of their children will survive to support them in their old age.

Priorities

The highest overall priority is to create a public dialogue on foreign aid in health (ASTMH Priority) (Table 8).

The second priority is to persuade foreign officials to emphasize health in their negotiations with American officials, at home and in Washington, DC. The Society must convince both the United States and foreign governments that < 5% (2.3–4.8%) is an unacceptably low commitment to health in foreign aid. With the resolution of the Cold War, the health budget could be increased to 20–30% even if overall expenditures for foreign aid are decreased.

The third priority is to ensure that health expenditures in foreign aid receive the same scrutiny as other government expenditures in health. Objective independent reviews must be obtained for major health projects to evaluate the strategies that were used and the results achieved.

TOPIC 5: SOCIAL AND ECONOMIC DETERMINANTS OF HEALTH

Social and economic factors are important determinants of health. The best known of these

TABLE 9
*Topic 5: Social and economic priorities**

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- 1) Invited presentations in the *Journal* and at the Annual Meeting (ASTMH Priority)
 - 2) Collaboration with interested groups such as the Medical Anthropology Section of the American Anthropology Association and the Social and Economic Research Working Group of TDR
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* Members of the Social and Economic Determinants of Health Working Group include Scott B. Halstead (Chair), Harrison C. Spencer, Stephanie Sagbebiel, Steven L. Hoffman, Donald R. Hopkins, C. C. Campbell, and Richard Burk.

relationships is the association between maternal literacy and child survival.¹⁷

Current Situation

This Society is based primarily on the biologic sciences and medicine. That sense of priorities is unlikely to change, and should not. However, both the field as a whole and this Society have often ignored the ways in which the behavioral and social sciences can contribute to the long-term goal of controlling tropical disease.

Present Needs

At a minimum, there must be enough involvement of social scientists that investigators in tropical medicine understand the social impact of the diseases on which they work and of the strategies they propose to control or eradicate those diseases. For example, bed nets are unacceptable in certain regions of West Africa because of their resemblance to death shrouds. In several of these areas, it has been necessary to use permethrin-impregnated curtains in doorways and windows rather than bed nets.

Potential Strategies

Invited presentations can be used to highlight these relationships at the Annual Meeting and in the *Journal*. The Medical Anthropology Section of the American Anthropological Association and the Social and Economic Research Working Group of TDR are intensely interested in these issues and in exploring them with this Society.

Priorities

The highest overall priority is the selective presentation of social and economic issues related

TABLE 10
Potential changes in society governance

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- 1) Council
 - a) Special Activities of Individual Councilors
 - b) Increased discussion of strategic planning and Society priorities at Council meetings
 - c) Use of an Administrative Committee to review committee reports and thus provide more time at Council meetings for the discussion of strategic planning and Society priorities
 - 2) Presidency
 - a) Increased reliance on the President-Elect
 - b) Official role for the Past-President
-

to health at the Annual Meeting and in the *Journal* (ASTMH Priority) (Table 9).

The second priority for the Society is establishment of relationships with groups of qualified social scientists interested in issues related to tropical medicine and hygiene to approach this topic prospectively in the future.

CONCLUSIONS

The central point of this address is that our Society can make a difference if it identifies priority areas within the range of its influence and resources. Significant progress has already been made on the development of Diploma courses and certification in Tropical Medicine, on a directory of international opportunities for young investigators, on discussions with industry, and on the support of TDR as part of United States foreign aid in health. In addition, I would like to encourage the Society to speak out on important issues related to tropical medicine that are beyond its immediate sphere of influence and financial resources. Within the field of tropical medicine, this Society has a unique reservoir of expertise. Even when the Society cannot control the outcome, it can present its views as position papers in the *Journal* and other publications that help create an informed dialogue as part of the public record. The Society, the foundations and government programs that support research in Tropical Medicine, and the public at large will benefit from that dialogue.

Before closing, I would like to make two points. First, I would like to return briefly to my comments about Society governance. I hope this address will be viewed as part of the Society's evaluation of itself. In many respects, it is a progress report on what has happened since the Retreat

this past February. If we are fortunate, it is a harbinger of changes to come, rather than an isolated event (Table 10). The involvement of Dan Colley in this process has been essential; the involvement of both Dan Colley and Barney Cline in the future will be essential for the long-term success of the initiatives begun this past year.

Second, I would like to say again that it has been a privilege for me personally to be charged with this responsibility, and to attempt to articulate the views of the Society on a number of occasions. In closing, I am reminded of a comment by Chief Siriman Diarra of the village of Tieneguebougou in Mali. When we visited him last year, he wanted us to know how pleased he was that the death rate for malaria among children in his village had decreased to *only* 15%. His perspective places our endeavor in context. We still have much to do and a long way to go.

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